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SIERRA COLLEGE

ABOUT SIERRA

Land Acknowledgement

With respect, we acknowledge the Rocklin Campus of Sierra College as the traditional and unceded land of the Nisenan and Miwok peoples. The Secret Ravine, known in Nisenan as Hoyok, is home to an ancestral village site protected for generations by local tribal nations and their members. Sierra College commits to an ongoing relationship with the United Auburn Indian Community and other local tribes, and to respect the legacy of the first peoples of this land and their future generations who are an integral part of the Sierra College community.

District Mission and Institutional Outcomes

Sierra College serves a diverse set of communities from the Sacramento Valley to the Sierra Nevada mountains, including Placer, Nevada, and portions of El Dorado and Sacramento Counties. To meet the needs of these communities, Sierra College offers a wide range of degree, transfer, career, and technical training programs at four campuses in Rocklin, Roseville, Grass Valley, and Tahoe-Truckee.

Mission Statement

The mission of Sierra College is to provide an inclusive and safe educational environment where learners are supported while challenging themselves and achieving their goals.

Vision Statement

Sierra College will be the preferred destination for higher education and training in our region while eliminating achievement gaps among our students.

Core Values

The following core values will establish our ethical principles and will guide our institutional decision-making. Sierra College will:

1. Empower students in their education.
2. Strive toward student success and continuous improvement.
3. Be an inclusive and equitable community.
4. Be responsive to the education and workforce needs of our local community and businesses.
5. Demonstrate collaboration with all stakeholders in decision making.
6. Manage all resources in a manner that is sustainable and responsible.
7. Support and model excellence and innovation in teaching, learning, scholarship, and creativity.

Reference: Sierra College Board Policy 1200

Sierra College Commitment

Since its first days, the commitment from Sierra College has been to provide a challenging and supportive learning environment for students having diverse goals, abilities, and needs interested in transfer, career and technical training, and lifelong learning.

While Sierra College is focused on our immediate service area (https://www.sierracollege.edu/wp-content/uploads/2022/07/districting-sierra-board-map-enlarged.jpg) and its surrounding communities, we welcome all students, whether from other parts of California, other states (https://www.sierracollege.edu/admissions/costs/), or from outside the US (https://www.sierracollege.edu/student-services/support-programs/international-students/). Whether a student's goal is to transfer (https://www.sierracollege.edu/student-services/career-transfer-internship/) to a four-year college or university, earn an associate's degree or certificate (http://catalog.sierracollege.edu/degrees-certificates/), learn job skills, or engage in lifelong learning (https://www.sierracollege.edu/academics/community-learning/), Sierra College has a place for them.

In order to ensure Sierra College is meeting its promise, the college regularly reviews the progress of our students (https://www.sierracollege.edu/about-sierra-college/planning-and-governance/student-learning-outcomes-slos/#Student-Learning-Outcomes-and-Results-by-Program) through assessing learning outcomes and monitors to ensure that students, regardless of background, are achieving their educational goals (https://www.sierracollege.edu/academics/interest-areas/).

Student Learning Outcomes

Student learning outcomes (https://www.sierracollege.edu/about-sierra-college/planning-and-governance/student-learning-outcomes-slos/) state the expected knowledge, skills, and abilities students possess as a result of utilizing services and completing a course, a certification or a degree. At Sierra College, instructional programs define student learning outcomes for their content areas and link them to courses, certificates and degrees. Student learning outcomes for individual programs may be found on the Sierra College website. Course student learning outcomes are included in the class schedule. The general education sequence supports students' attainment of the college's institutional outcomes, as do the student learning outcomes for student services. These outcomes align with our district mission, support our vision, and reflect our core values.

Institutional Outcomes

Students attend Sierra College for a variety of reasons. Based on their own educational goals and experiences, students will develop skills in the following areas:

Communication

1. Read—Use active reading skills to comprehend and interpret information and ideas from a variety of texts, including academic prose (such as textbooks, literature, primary and secondary sources, and scholarly journals), technical documentation (such as manuals, charts, graphs, and reports), and media sources (such as newspapers, magazines, websites and online databases).
2. Write—Communicate thoughts, ideas, and information effectively in writing in a variety of modes and for a variety of purposes. Accurately and persuasively convey information and ideas using logic, reasoning, and effective rhetorical strategies. Use correct grammar, spelling, punctuation, diction, style, and format.

3. Listen—Demonstrate active listening skills in classroom, community, personal, and professional situations. Interpret and respond appropriately to verbal and nonverbal communication in a variety of contexts.
4. Dialogue—Interact in a variety of dynamic situations by assessing the needs of the audience, creating a message, adapting to audience feedback, and responding appropriately. Through dialogue, build mutual understanding with individuals from various backgrounds.

Technology and Information Competency

1. Demonstrate Technical Literacy—Efficiently and accurately use current computer and other relevant technologies to acquire, process, and present information. Organize and maintain records.
2. Apply Technology—Use computer applications and other technologies in the learning process, real-world scenarios, and the workplace. Organize and maintain records.
3. Access Information—Recognize the need for information; choose and narrow topic. Formulate search questions. Gather, organize, and discriminate among various sources of information.
4. Evaluate and Examine Information—Filter information for relevance and accuracy. Apply criteria to determine credibility. Utilize data gathered to draw conclusions. Construct meaning from expanding and conflicting information. Credit sources according to academic standards.

Critical and Creative Thinking

1. Inquire—Identify and understand questions or problems across disciplines and in practical applications. Develop hypotheses.
2. Analyze—Investigate and assess the validity or relevance of arguments, claims, or contentions supported by data, observation, experience, testing or analysis. Distinguish fact from opinion. Develop an interpretation with an awareness of different views and reasoning.
3. Problem Solve—Use sound reasoning to specify solutions and consequences. Test hypotheses using methods appropriate to the problem (such as the scientific method, mathematical reasoning, and principles of logic).
4. Express—Acquire an appreciation and involvement in the creation or performance of works of fine art, craft, music, drama, and/or culture. Participate in games, sports, dance, and outdoor pursuits based on individual interests and capabilities.

Citizenship

1. Ethics—Develop and apply ethical reasoning and decision making skills in academics, in the workplace, and in global and local communities. Value honesty, civility, empathy, interpersonal competence, social responsibility, and peaceful conflict resolution.
2. Diversity—Recognize, understand, and respect diversity of belief, culture, value, ability, gender, race, age, and sexual orientation.
3. Sustainability/Global Awareness—Develop values and behaviors that respect the natural environment. Evaluate social justice issues and identify social responsibilities to elicit social change. Recognize the ethical implications of political, social, and economic institutions.
4. Personal Responsibility—Accept personal responsibility by recognizing oneself as the principal cause for opportunities and experiences. Effectively develop, apply and manage a healthy physical lifestyle and emotional well-being; self-motivate through planning and acting to accomplish goals. Recognize the value of life-long learning.

Academic Calendar

Fall Semester 2025

August 18	INSTRUCTION BEGINS
August 30	Holiday (Labor Day)
September 21	Last Day to Add Full-Semester Class
	Last Day to Drop from Full-Semester Class without Receiving a "W"
	Last Day to Drop from Full-Semester Class and Receive a Refund
September 2	Census Date
September 19	Last Day to Request Pass/No Pass Grading for Full-Semester Class
October 1	Last Day to Request December 2025 Degree or Certificate
October 13-18	Mid-Term Break
November 4	Last Day to Withdraw from Full-Semester Class and Receive a "W"
November 11	Holiday (Veterans Day)
November 27-29	Holiday (Thanksgiving)
December 13	Semester Ends
December 22-January 1	Campus Closed

Spring Semester 2026

January 19	Holiday (Dr. Martin Luther King, Jr. Day)
January 26	INSTRUCTION BEGINS
February 8	Last Day to Add Full-Semester Class
	Last Day to Drop from Full-Semester Class without Receiving a "W"
	Last Day to Drop from Full-Semester Class and Receive a Refund
February 9	Census Date
February 13-16	Holiday (Presidents' Weekend)
February 27	Last Day to Request Pass/No Pass Grading for Full-Semester Class
March 1	Last Day to Request May and/or August 2025 Degree or Certificate
March 23-28	Mid-Term Break
April 17	Last Day to Withdraw from Full-Semester Class and Receive a "W"
May 21	Commencement—Nevada County Campus
May 22	Commencement—Rocklin Campus
May 23	Semester Ends
May 25	Holiday (Memorial Day)
June 19	Holiday (Juneteenth)

Summer 2026

June 8	INSTRUCTION BEGINS
July 3-4	Holiday (Independence Day)
August 1	End of Summer Classes

This calendar is subject to change.

Each short-term or fast-track class has its own add, drop, withdrawal, refund, and pass/no pass grading deadlines. Contact a campus Admissions and Records office or check the Sierra College website for registration information.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 4.

A Brief History of Sierra College

The origin of Sierra College is somewhat uncertain. Some have said that the College may have begun with the establishment of Sierra Normal College and Business Institute in 1882. It was a small, private college at the location of today's Placer High School in Auburn. Most think that Sierra College is an outgrowth of the Placer Union High School District.

In 1914, the Placer Union High School District was born, stretching from Loomis to Lake Tahoe. That same year, college-level classes were offered. The new college was named Placer Junior College. It was the fourth oldest junior college in California at the time and only one of nine statewide; the faculty numbered four.

Due to enrollment loss caused by World War I, Placer Junior College was abandoned by 1920, but the college idea never completely died. In 1936, the college was reestablished, again in Auburn, with the enthusiastic support of local voters. It is 1936 that Sierra College uses as its official date of birth.

Three wings of buildings were constructed to serve primarily Placer Junior College, but Placer High School students shared many of the facilities, instructors and organizational structure with the new college. Enrollment numbered about 100 and the college athletes went by the name "Spartans." The college grew steadily and by 1938, 200 students were enrolled.

Enrollment crested at 282 in 1939, but events quickly overtook the college in the 1940s. The 1941 attack on Pearl Harbor essentially ended enrollment by men as many went off to serve their country. Additionally, enrollment dropped significantly when Japanese-Americans were forced into internment camps. The student population dropped to 53 by 1943. The college eliminated the "Junior" from its name, becoming Placer College.

The war's end brought returning veterans, the end of internment, and the GI Bill of Rights. Enrollment in the post-war years exploded as a result. 1946 saw 467 students—about half were veterans. 856 were enrolled in 1949 and the Placer College facility was bursting at the seams. The College had reached full capacity, and efforts to find a new college location began. Area population continued to grow and the need for new facilities grew acute. In 1953, Placer College was renamed Sierra College and its athletes gained a new nickname—the "Wolverines."

In 1957, the new Sierra Junior College District successfully passed a bond measure to pay for new facilities. In 1958, a site selection committee considered thirty-five possible locations and the present Rocklin site was chosen.

By 1961, the new Rocklin campus opened and enrollment reached 1,500. In 1962, Nevada County joined Placer County in forming a huge new Sierra Junior College District, which then had more square miles—3,200—than students.

Enrollment boomed in the 1960s. By the end of the decade, Sierra College boasted 100 full-time faculty members and nine new campus buildings. Enrollment was nearly 4,000. However, as fast as new facilities could be built, they were filled. The next several decades saw significant student population growth. From 1970 to 1990, enrollment jumped from 4,000 to nearly 14,000, and, by the year 2000, the college enrolled approximately 18,000 students.

In 1996, the 105-acre Nevada County Campus was opened. Twelve locations had been considered in that county until property between Grass Valley and Nevada City was chosen.

Leased centers were opened in the Tahoe/Truckee and Roseville areas. Classes were also taught at local high schools and community centers.

In recent years, successful bond issues provided for an expansion of the Nevada County Campus and the creation of a permanent Tahoe-Truckee Campus. In 2008, the Tahoe-Truckee campus inaugurated its brand-new facilities. Located on beautiful McIver Hill next to Interstate 80, the state-of-the-art "green" campus overlooks historic Truckee. In 2008, a new Mathematics and Technology Building was constructed on the Rocklin campus.

In 2010, as the result of the passage of the voter-approved Measure G Bond in November 2004, new buildings on the Nevada County Campus opened, including a computer lab and buildings for the arts and public safety.

Sierra College continues to be in the vanguard of innovative projects. The award-winning mechatronics training program is a national leader in cutting-edge electronics and robotics.

Beyond the classroom, Sierra College operates an outstanding Natural History Museum. Specializing in evolution and paleontology, the museum is open to the public with its high-quality displays and hosts thousands of visitors annually, including attendance at the yearly Dinosaur Days event. The Sierra College Press functions as the only complete academic press operated by a community college in the United States. It often co-publishes with Heyday, an award-winning California publisher in Berkeley. The Associated Students of Sierra College (ASSC) partners with college-wide programs and student clubs to cosponsor numerous meaningful activities on campus that celebrate environment, human cultures, political awareness, gender and sexual equality, and many other important issues. Student athletes compete in numerous intercollegiate sports within the California Community College Athletic Association, the Big 8 Conference and the Northern California Football Conference. Men and women student athletes have earned eight California State Championships for Sierra.

Sierra College's outstanding academic reputation, excellent technologies and training programs, and updated facilities led to increases in student enrollment. Projections of future "for credit" enrollment top 25,000.

The Sierra Community College District includes all of Placer and Nevada Counties and part of El Dorado and Sacramento Counties. In recent years, Placer and Nevada Counties have been two of California's fastest growing areas.

The College District continues to experience dramatic growth and change. The future is bright as new technologies evolve, offering greater educational accessibility for students—both today and tomorrow.

Since its first days, the promise of Sierra College has been to provide a challenging and supportive learning environment for students having diverse goals, abilities, and needs interested in transfer, career and technical training, and lifelong learning. The College continues this mission as it adapts to meet the ever-changing needs of students.

General Information

Accreditation

Sierra College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC), which operates under the Western Association of Schools and Colleges, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the United States Department of Education.

Contact information:

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The Accrediting Commission for Community and Junior Colleges
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Western Association of Schools and Colleges
331 J Street, Suite 200
Sacramento, CA 95841

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Telephone Number:   (415) 506-0234
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Fax Number:   (415) 506-0238
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Email Address: accjc@accjc.org
Website: www.accjc.org (http://www.accjc.org)

Accreditation is a voluntary system of self regulation developed to evaluate overall educational quality and institutional effectiveness, providing assurance to the public that Sierra College meets the Standards; the education earned is of value to the student who earned it; and employers, trade or profession-related licensing agencies, and other colleges and universities can accept a student's credential as legitimate.

For more information about Accreditation at Sierra College, please visit our Accreditation and SLOs website (https://www.sierracollege.edu/about-sierra-college/planning-and-governance/accreditation/).

Instructional Programs

General Education

A range of courses to help students gain breadth of knowledge about the environment, natural sciences, social and behavioral sciences, humanities, English, communication and analytical thinking, awareness of cultural differences, and the importance of maintaining health and fitness.

Educational Programs

Organized sequences of courses leading to a defined objective, a degree, a certificate, a diploma, a license, or transfer to another institution of higher education.

Transfer Curriculum

Courses that meet general education and lower-division major requirements equivalent to the first two years at a four-year university to which students may transfer with junior standing.

Career and Technical Education

Certificates and degrees designed to prepare students for entry into professional level employment opportunities, or update job skills in the rapidly changing workplace.

Basic Skills

Both nondegree-applicable credit courses and noncredit courses in reading, writing, mathematics, and English as a Second Language (ESL).

Contract Course

Course offered under a contract pursuant to Educational Code 78021 with a public or private agency, corporation, association, or other organization.

Community Education Program

Provides convenient classes and activities to meet the needs and interests of our diverse community for enrichment and personal and professional growth. Classes are offered in areas of business, career, computers, creative arts, food, health, home and garden, music, and more. Additionally, special activities such as sports camps, motorcycle training, bus trips and global travel are offered. The Kaleidoscope schedule of not-for-credit, fee-based classes is published in spring, summer, and fall. Classes are open for the admission of adults and those minors who, in the judgment of the governing board, may benefit from the program. Students shall be charged a fee not to exceed the cost of maintaining the classes. For further information see the Community Learning website (https://academics.sierracollege.edu/community-education-0/).

Distance Learning

Online courses may be accessed from anywhere at anytime through an Internet connection. Hybrid and HyFlex courses are a combination of online and on-ground formats.

Field Trips

Trips sponsored by the various instructional divisions to provide students with the enriching experience of visiting such locations as the Sierra - Nevada, the ocean, and the desert. Additional fees may be assessed.

Internship Program

Work site learning which provides students an opportunity for hands-on experience, application of classroom learning and exploration and development of skills and knowledge in a particular field or profession. Sierra College offers a two-level internship program. The lower level, called Internship 94, is a Career Exploration internship in which the primary focus is for a student to learn more about a particular field or profession, without extensive previous knowledge or experience. The upper level placements, called Internship 95, are designed for advanced students to expand their knowledge and skills in an area related to their college major.

Noncredit

Noncredit is an educational gateway offering courses that develop foundational skills, strengthen self-sufficiency and provide pathways to higher education and/or employment. Designed for a diverse student population, courses improve access to college, enhance job opportunities, and promote lifelong learning.

Osher Lifelong Learning Institute (OLLI)

Provides noncredit, tuition-free instruction specifically designed to serve the interests of adults 55+ years of age. Classes are short term, typically four to six weeks in length. A variety of course topics are offered, including art, film, fitness, music, nutrition, and literature. For further information see the C (http://www.sierracollege.edu/olli/)ommunity Learning website (https://www.sierracollege.edu/academics/community-learning/).

Short-term or Fast-track Classes

Classes not a full semester in duration. Each class designated short-term or fast-track has its own add, drop, withdrawal, refund, and pass/no pass deadlines.

Student Services

Services include, but are not limited to academic, transfer, and career counseling, Success Center, financial aid, housing, tutoring, EOPS/CARE, CalWORKs, TRiO, health services and support for disabled students, former foster youth, and veterans; as well as crisis intervention services.

Governance

The Sierra College community determines its educational and other policies through a participatory governance process involving students, classified support staff, faculty and administration. A senate formed by each group advocates the group's interests. Each organization represents its constituency with a formal voice in determining educational policy, procedures, and regulations as well as coordinating representatives on committees and councils.

The **Student Senate** actively represents the students in the College's committee work and planning. The organization also promotes student activities and clubs as well as providing information on current events for the student body.

The **Classified Senate** represents the College's support staff on professional matters.

The **Academic Senate**, under authority from Title 5 of the California Code of Regulations, represents all faculty on academic and professional matters.

The **Management and Confidential Senate** represents educational administrators, supervisory, and confidential employees on professional matters.

The **Strategic Council** consists of five representatives from each of the constituency groups. The purpose of the Council is to present and discuss the concerns and interests of the constituent groups; to collaborate with the Superintendent/President by conveying the interests of the constituent groups on the strategic direction of the college; to share in decision-making by advising the Superintendent/President in the development of policies and procedures; and to assist in disseminating information to the college community.

The **Board of Trustees** is the elected governing body of the Sierra Joint Community College District and has the final authority to establish policy for current and long-range educational plans and programs, promote orderly growth and development, and ensure fiscal responsibility. Board Policies and Administrative Procedures may be found here (https://www.sierracollege.edu/about-us/leadership/board-of-trustees.php).

Advisory Committees

To insure that meaningful curricula in the career technical programs are maintained, department advisory committees, comprised of specialists in the subject matter area, meet to advise on program emphasis and change. Individual committee members are listed on the appropriate department overview pages in this catalog.

Sierra College Foundation

The Foundation seeks private funds to support Sierra College students and programs, assisting in the development of a trained workforce that promotes the economic development and viability of the community. The Foundation assists students in pursuit of higher education by offering scholarships, book vouchers, computers, and emergency grants.

Foundation accomplishments include: establishment of a million dollar scholarship endowment; establishment of a technology endowment; funding for the implementation of WiFi on all campuses; establishment of an emergency fund endowment to provide grants to students facing one-time emergencies; and funding and equipment for the Sierra College Veterans Resource Center. The Foundation offers refurbished computers to students with financial need; supports former foster youth attending Sierra College with care packs; and offers approximately $300,000 in scholarships annually.

The Foundation is supported by financial contributions (cash, stocks, planned gifts, memorials, bequests, real estate, trusts) and activities (wine and food tastings, auctions, golf tournaments, dinners, the auto fair and other fund-raising events). For additional information or to contribute, please visit the website at www.sierracollege.edu/foundation (http://www.sierracollege.edu/foundation/), call the Foundation Office at (916) 660-7020, or write to:

Sierra College Foundation
5100 Sierra College Boulevard
Rocklin, CA 95677

Speakers Bureau

The Speakers Bureau is designed to acquaint community members with Sierra College and its fine staff. Faculty and staff are available to address a variety of timely subjects at meetings of community groups and organizations. For information, contact Marketing/Public Relations, (916) 660-7272.

Board of Trustees

Administration, Faculty, Staff, and Emeritus

Staffing Policy

Sierra College, recognizing that as a community college it should reflect the ideals and standards of the community, wishes to reiterate and emphasize its long-standing policy of non-discrimination in the employment of faculty and staff.

Administration

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Tahoe Truckee

Dorian Askew
Information Technology Services

Satyendra Attota
Information Technology Services

Joseph Avila
Student Services

B

Alicia Bagley
Student Services

Heather Bahr
Learning Resource Center

MiaFrancesca Bailey
Student Services

Carra Barbee
Accounts Receivable

Danielle Barclay
Superintendent/President's Office/Marketing

Aldin Barrett
Community Safety

Robert Bateman
Information Technology Services

Sergei Batoy
Facilities Maintenance

Matthew Becker
Administrative Services

Christopher Beckman
Facilities Maintenance

Mia Belluomini
Learning Resource Center

Sandra Belmares
Student Services

Meghan Benham
Information Technology Services

Cynthia Birdsong
Learning Resources and Support Services

Lora Blakley
Student Services

Nik Bobyk
Student Services

Mallory Borrego
Student Services

Britt Bray
Student Services

Donna Brazil-Bloche
Campus Operations, SC-NCC

Brooklynn Bridges
Osher Lifelong Learning Institute

Ingaborg Bristow
Student Services

George Bromm
Earth Science

Branden Brown
Human Resources

Gregory Brown
Reprographics

Jessica Burgess
Student Services

Christine Byrnes
Facilities Maintenance

C

Christian Cabrera
Community Safety

Catherine Callas
Student Services

Melissa Camou
Student Services

Laura Capitano
Instruction

Adolfo Cardoza Lopez
Grounds Maintenance

Christopher Carreon
Community Safety

Kim Carrillo
General Services

Brett Carroll
Finance

Parker Carroll
Warehouse

Stacey Carroll
Superintendent/President's Office

Valarie Carte
Public Safety

Christina Carter
Library

Rikki Cartwright
Instruction

Angela Casey
Human Resources

Kerrie Cassidy
Marketing

Eloisa Castro
Custodial

Edward Caudill
Information Technology Services

Craig Caughlin
Information Technology Services

Molly Charron
Veteran's Services

Ilona Chernitskaya
Student Services

Kristina Chernitskaya
Business Services

Aleksandr Chernitskiy
Student Services

Vladimir Chervenkov
Facilities Maintenance

Iryna Chervenkova
Student Services

Tetyana Chervenkova
Learning Center

Robert Chicou
Makerspace

Ada Chiu
Information Technology Services

Anthony Christensen
Information Technology Services

Connor Christensen
Biological Sciences

Dade Clark
Information Technology Services

Aimee Colvin
Distance Learning

Takwan Cook

Administrative Services

Cary Cose
Facilities Maintenance

Elvira Covarrubias-Martinez
Student Services

Kourtney Crandell
Finance

Tim Crandell
Plant Operations

Brad Crawford
Facilities Maintenance

Allisha Crockett-Jacobs
Student Services

Danae Culley
Student Services

D

Julie D'Agostino
Administrative Services

Donterus Davis
Kinesiology and Athletics

Robert Dean
Information Technology Services

Sabrina Deans
Athletics

Christopher Derks
Library

Christopher DeVay
Facilities Maintenance

Ninette Dollesin
Instruction

Evan Dominguez
Facilities Maintenance

Laurie Donahue
Superintendent/President's Office

Gregory Dorando
Information Technology Services

Retuguel Dupree
Community Safety

E

Jennifer Eaton
Instruction

Toni Edgerton
Accounting

Alexander Eiramjian

Student Services

David Ellingson
Information Technology Services

Angelique Emery
Custodial

F

Vicki Fawcett
Professional and Orgaizational Development

Matt Fertel
Applied Art and Design/Photography

Cesar Manuel Fierro
Student Services

Edward Fisk
Facilities

Dawn Flannery
Kinesiology and Athletics

Patricia Flannigan
Professional and Organizational Development

Valentina Fomina
Student Services

Katherine Fukui
Writing Center

G

Gage Gage
Student Services

Aisha Gaines
Distance Learning

Angel Garcia
Student Services

Crystal Garcis
Student Services

Elizabeth Garosi
Kinesiology and Athletics

Emily Gibson
Student Services

Anthony Gill
Applied Art and Design/Art

Brendon Gill
Information Technology Services

Dennis Gladysh
Student Services

Nataliya Gladysh
Student Services

Valeriy Gladysh

Facilities Maintenance

Michael Glashan
Information Technology Services

Stephen Glashan
Facilities Maintenance

Autumn Gobel Cahoon
Distance Learning

Deborah Gold
Nursing and Allied Health Sciences

Priscilla Gonzalez
Student Services

Ryan Goodpastor
Student Services

Matthew Gottschalk
Applied Art and Design/Photography

Karin Green
Student Services

Sherri Gregory
Administrative Services

Autumn Grieshop
Information Technology Services

James Griffin
Student Services

Kelly Gunn
Instruction

Mariella Guzman Aguilar
Student Services

H

Anna Ha
Writing Center

Nigel Haikins
Instruction

Kayla Hamm
Student Services

Kim Hansen
Nursing

Spencer Harmonson
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Mathematics

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English as a Second Language

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Greg Hovious
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Computer Information Systems,Drafting and Engineering Support

James Huntington
Facilities Maintenance

J

LaToya Jackson
Human Resources

Michael Jackson
Advanced Manufacturing/Construction/Welding

Tamara "Tami" Jackson
Information Technology Services

Mariana Jimenez Chavez
Student Services

Brandon Johnson
Ahtletics

Kaleen Jones
Administrative Services

Kelly Jones
Information and Technology Services

Maryann Jones

Student Services

Shawn Jones
Information Technology Services

Omar Juarez
Biological Sciences

Aspeytia Jurado
Sciences and Mathematics

K

Valerie Kalos
Nevada County Campus

Christine Kay
Liberal Arts

Chelsea Keller
Student Services

Brittani Kelly
Human Resources

Kylee Keroher
Student Services

Veronica Kesner
Sciences and Mathematics

Sergey Khudyakov
Custodial

Jenna Kind
Advanced Manufacturing/Construction/Welding

JT Kinzler
Student Services

Melisssa Krolikowski
Plant Operations

Ryan Kyle
Custodial

L

Tyler LaBelle
Community Safety

Jessica LaCourse
Research and Planning

Jeremy Leak
Custodial

Joann Leal
Sciences and Mathematics

Kori Lee
Student Services

Robin Lee
Community Education

Julie Leedy

Community Education

Andrew Lenox
Marketing

Jeff Lloyd
Transportation

Alysia Lopez
Plant Operations

Rene Lopez
Grounds Maintenance

Jacqueline Lopez-Godinez
Student Services

Jamison Lopizich
Campus Parking and Security

Marie LoPresti
Library

Sharon Lucas
Payroll

Matthew Lyon
Marketing

M

Nancy Macias Osorio
Business and Technology

Elizabeth Magana
Liberal Arts

Cortney Magorian
Student Services

Kimberly Marcussen
Learninig Reasources and Support Services

Gabriel Mariscal
Grounds Maintenance

Charlene Martin
Plant Operations

Walter Martin
Grounds Maintenance

Carol Martinez
Student Services

Kathryn Martinsen
Payroll

Laura Mazer
Natural History Musem

Olena Mazur
Human Resources

Breanna McAsey
Student Services

Keith McFarland

Custodial

Laura McNaughton
Student Services

Lisdeny Medoza Torres
Student Services

Olivia Mejia
Business and Technology

Mikaila Melgarejo
Student Services

Amanda Mellett
Plant Operations

Erica Mercado
Student Services

Bob Merritt
Custodial

Valeria Michel Chavez
Liberal Arts

Kara Miller
Human Resources

Ryan Miskanis
Community Safety

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Mathematics

Christine Molina
Student Services

Juan Molina
Facilities Maintenance

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Library

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Vitaliy Morozov
Student Services

Anna Mostafavi
Accounting

Paula Mota
Student Services

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Facilites and Construction Management

Olivia Mumpower
Purchasing

Juan Murillo
Student Services

Kasandra Murillo
Student Services

N

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Facilities Maintenance

Irina Nesterenko
Student Services

Kimberly Nguyen
Instruction

Denise Nichols
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Kris Nolan
Student Services

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Student Services

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Instruction

O

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Information and Technology Services

Kira Oerman
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Jose Palacios Orellana
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Sharmishtha Osman
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P

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Facilities Maintenance

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Facilities Maintenance

Scott Pauley
Facilities

Nalo Pelago
Accounts Payable

Mei Peng
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Sinval Pereira Carvalho
Grounds Maintenance

Corrine Perella Guillama
Public Safety

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Scott Pisik
Warehouse

Carly Plageman

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Anna Platz
Accounting

Iryna Plotka
Student Services

Chris Poling
Distance Learning

Maryam Portillo
Student Services

Shilpa Pothula
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Misty Presser
Student Services

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Mathematics

Cody Purdy
Grounds Maintenance

Kristie Purdy
Facilities and Construction

Mindee Purscell
Student Services

Russell Pywtorak
Information Technology Services

Q

Neal (Max) Qaqa
Custodial

Justine Quealy
Nevada County Campus

R

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Chaudhary Rafiq
Community Safety

Shannon Ramias
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Community Safety

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S

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Student Services

Andy Shirk
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Dree Shively
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Su-Lin Shum
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Campus Parking and Security

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Jatinder Singh
Community Safety Officer

Oleg Slabchak
Transportation

Britney Slates
Human Resources

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Custodial

Morgan Smith
Sciences and Mathematics

Shari Smith
Osher Lifelong Learning Institute

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Student Services

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Library

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Nevada County Campus

Diana Split
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Astronomy

T

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Facilities Maintenance

Rachell Tejeda
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Theater Production

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Mark Tucker
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Teri Turner
Procurement

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U

Jennifer Ulrich
Economic and Workforce Development

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Student Services

V

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Reanna Valentine
Student Services

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Student Services

Ivonne Vega Garcia
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Corrine Vieira
Student Services

Joey Villasenor
Marketing

Michele Vincelli
Biological Sciences

Mary Vogel
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Dzan Vong
Administrative Services

W

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Tanya Walker
Learning Resource Center

Cody Watson
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Amie Weaver
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Linda Williams
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Lindsey Williams
Business and Technology

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Dennis Woods III
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Mailroom

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Diane Wright
Marketing

Ying Wu
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Y

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Cameron Yorde
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Finance

Phil Yorde
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Breezy Young
Student Services

Z

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Administrative Services

Migdalia Zamora
Student Services

Fabio Zampieri
Information Technology Services

Tanya Zito
Student Success and Equity

Emeritus Faculty and Administrators

A

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Professor, English

Neal Allbee
Executive Dean, Sierra College - Nevada County Campus

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Professor, Sociology

Alejandro Amigo
Professor, Earth Science

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Professor, Design Drafting

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President and District Superintendent

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Professor, Nursing

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Professor, Economics

Cheryl L. Axton
Professor, Counseling

B

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Professor, Biological Sciences

Steven (Estifanos) Baissa
Dean, Student Equity

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Maile E. Barron
Professor, Mathematics

Sharon L. Bateson
Professor, Nursing

Barbara Battenberg
Professor, Communication Studies/English

David Beesley
Professor, History

William C. Belvel
Professor, Mathematics

Roland A. Bergthold
Professor, Biological Sciences

Elaine Bienvenue

Professor, Business

Marcia M. Braga
Professor, Counseling

Laura J. Brahce
Professor, Biological Sciences

Kevin Bray
Dean, Planning, Research and Resource Development

Paul R. Brewer
Professor, Design Drafting/Engineering

(James Thomas) Bright Rope
Professor, English

Bruce W. Broadwell
Professor, Computer Science

Carol J. Brookins
Professor, Nursing

Dorothy M. Brown
Professor, Art

Clifford Burns
Professor, Computer Science

Daniel B. Burns
Professor, Chemistry

Sheila R. Butler
Professor, Counseling

C

Deirdre A. Campbell
Professor, Library Science

William Carmody
Professor, Music

Craig D. Chamberlain
Professor, Construction Technology

Rex H. Chappell
Professor, Physical Education

Leo E. Chavez
Superintendent/President

Michael P. Claytor
Professor, Anthropology

William Cole
Professor. ComputerScience

Ivor E. Cooper
Professor, English

Donald Cosper
Professor, Sociology

Carol Jean Cox
Professor, Geography

D

D. Charles Dailey
Professor, Biological Sciences

Mandy Davies
Assistant Superintendent/Vice President, Student Services

Barbara T. Dawson
Professor, English/Skill Development

Scott R. Decker
Professor, Athletics/Health Education/Kinesiology/Recreation Management

Frank D. Decourten
Professor, Earth Science

Rebecca Decourten
Professor, Mathematics

Daniel H. DeFoe
Professor, History

John W. DeLury
Vice President, Finance and Administration

Clare Dendinger
Professor, Nutrition and Food Science

Michelle M. DeVol
Professor, Staff Development

David D. Dickson
Professor, English/German

Eileen D. Dickson
Professor, Counseling

Michael R. Dobeck
Professor, Computer Science

Cynthia Y. Martinez Dunn
Professor, Business/Computer Information Systems

E

Perry Edwards
Professor, Computer Science

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Executive Dean, Student Success - Student Services

Susan Eiland-Rickman
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Carol Eisenhower
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Richard L. Elliott
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Roy T. Elliott
Professor, Business/Computer Information Systems

P.J. Elson
Professor, Computer Information Systems

C. David Emerson
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Carla Epting-Davis
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Barbara Erysian
Professor, Mathematics

F

Barbara L. Fairchild
Professor, History

Marlene S. Feldscher
Professor, Nursing

Lewis Fellows
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Thomas Fillebrown
Professor, Applied Art and Design

Charles E. Fitzpatrick
Professor, Physical Education/Special Education

Anne Fleischmann
Dean, Liberal Arts

Kaye E. Foster
Professor, English as a Second Language

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Professor, English

G

Edward Gieszelmann
Professor, Mathematics

Steven D. Gillette
Professor, Mechatronics

Roz Goldenberg
Professor, Athletics/Health Education/Kinesiology/Recreation Management

Rene I. Gottwig
Professor, Mathematics

Rebecca Gregg
Professor, Photography/Applied Art and Design

Gary A. Guckel
Professor, Research and Planning

Betty Gudz
Professor, Spanish

H

Michael F. Halbern
Professor, Mechatronics

Brian Haley
Dean, Library and Learning Resource Center

Kaylene Hallberg

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Debra L. Hammond
Professor, Theatre Arts

Jane Haproff
Professor, Philosophy/Humanities

William T. Hardy
Professor, Psychology

Lynn Hargrove
Professor, Mathematics

Donald C. Harris
Professor, Physics

Betty J. Hawkes
Professor, Counseling

Leslie D. Herrill
Professor, Chemistry

Debra J. Hill
Professor, Mathematics

William W. Hill
Professor, Music

Richard P. Hilton
Professor, Earth Science

James R. Hirschinger
Dean, Student Development

Esther L. Hogans
Professor, Human Environmental Sciences

Steven L. Hunter
Professor, Computer Integrated Electronics

Dianna R. Hylton
Professor, Nursing

J

Garvin L. Jabusch
Professor, Construction Technology

Martin E. Jack, Jr.
Vice President, Educational Programs and Services

Darlene D. Jackson
Associate Dean, Business Technology

Winsome E. Jackson
Professor, Political Science/Women and Gender Studies

Dana Johnson
Professor, Nursing

Kenneth G. Johnson
Professor, Mathematics

Pamela Hunter Johnson
Professor, Applied Art and Design

Susan A. Johnson

Professor, English

Evan W. Jones
Professor, Physics

Gwen T. Joy
Professor, Learning Disabilities/Perceptual Training

Stephen A. Jung
Professor, Engineering Support Technology

K

Michelle Kalina
Professor, Research and Resources

Sabina Karr
Professor, Nursing

John Michael Keating
Professor, Art/Art History/Humanities

Roselene Kelley
Professor, Human Development

Dave A. Kenyon
Professor, Astronomy

Kathleen Kolster
Professor, Nursing

David A. Kuchera
Professor, History

Rebecca J. Kyler
Professor, Mathematics

L

Stephanie S. Lamphere
Professor, History

Steven Ledbetter
Professor, Automotive Technology

Lawrence P. Lee
Professor, Mathematics

Neal Lemerise
Professor, Forestry

Laura A. Lind
Professor, Nursing

Karen M. Linde
Professor, Physical Education and Athletics

Steven W. Linthicum
Professor, Business/Computer Information Systems

Marvin R. Linville
Professor, Automotive Technology

Patricia L. Lord
Professor, English

Susan J. Lucyga

Educational Director, Professional and Orginizational Development

Morgan Lynn
Assistant Superintendent/Vice President, Educational Programs and Services

M

Terri L. Maddux
Professor, Counseling

Leland E. Mansuetti
Professor, Business

Richard S. Marasso
Professor, Astronomy

Jacquelynne J. Marchi
Professor, Extended Opportunity Programs and Services Counseling

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Professor, Extended Opportunity Programs and Services Counseling

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Assistant Superintendent/Vice President, Human Resources

Shawna L. Martinez
Professor, Biological Sciences

Nancy J. Martinis
Professor, Counseling

Joni L. Matson
Professor, Nursing

Patt McDermid
Professor, English

Sandra J. McDonald
Professor, Social Science

Alfred J. McElroy
Dean, Sciences and Mathematics

Joan C. McFarland
Professor, History/Sociology

John F. McFarland
Professor, History/Social Science

Diane McKnight
Dean, Research and Planning

Joseph L. Medeiros
Professor, Biological Sciences

Lynnette W. Medeiros
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Professor, Library Science

Mary G. Moon
Professor, Counseling

Cliff Myers
Professor, Mathematics

N

Paul J. Neal
Professor, Counseling

Sabrina L. Newsome
Professor, Mathematics

O

Rebecca Ortega
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Reyes R. Ortega
Professor, Counseling

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Executive Dean, Sierra College - Nevada County Campus

Thomas C. Owens
Professor, Computer Science

P

Tim Palmer
Professor/Coordinator, Fire Technology

William C. Pannell
Professor, Mathematics

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Sharon Peterson
Assistant Dean, Community Education

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Professor, Mathematics

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Professor, Biological Sciences

Sara Pries
Professor, Mathematics

Terry Prouty
Professor, Learning Disabilities

Q

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Professor, Counseling

Janet Quinlan
Professor, Human Development and Family

R

Roger V. Rasmussen
Professor, Business

Thomas G. Read
Professor, Business

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Professor, Biological Sciences

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Professor, Political Science/Social Science

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Professor, Automotive Technology

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Professor, Marketing

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Professor/Coordinator, Administration of Justice

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Professor, Music

Joan C. Stewart
Professor, Vocational Nursing

Burton W. Stokesbary
Professor, Counseling

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Professor, Learning Disabilities

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Assistant Superintendent/Vice President, Finance and Administration

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T

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Lenard E. Taylor
Professor, Mathematics

Johnnie D. Terry
Professor, Humanities/Lesbian, Gay, Bisexual and Transgender Studies/Philosophy/Women and Gender Studies

Jeff M. Tisdel
Professor, Athletics/Health Education/Kinesiology/Recreation Management

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Samuel R. Tubiolo
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V

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W

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Professor, Music

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Professor, Construction Technology

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Professor, History/Political Science

Margaret M. Williams
Professor, Communication Studies

Nicholas S. Willick
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Harriet S. Wilson
Professor, Biological Sciences

Alexander S. Wong
Professor, Automotive Technology

Y

Richard F. Yoo
Professor, Public Speaking

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Nevada County Campus

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Tahoe-Truckee Campus

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DEPARTMENTS

Administration of Justice
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Division
Business, Technology and Public Service

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Jill Alcorn

Associate Dean
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Division Office
B 3, Rocklin Campus

Overview

The Administration of Justice program offers students an Associate Degree for Transfer which prepares students for transfer into the California State University system. In addition, there are three associate degrees offered with specific areas of concentration. Each concentration has specific core courses that are required of all students. Courses are available in law enforcement, specializing in police activities that promote public safety and service to the community; courts, specializing in responsibilities to the public through the trial system of adjudication; and corrections, where sentenced individuals are subjected to society's effort to provide accountability and correct the deviant behavior.

The Administration of Justice program also offers a number of POST certified peace officer training courses, including PC 832 Arrest and Firearms, as well as Modules III and II of the POST Regular Basic Course (Law Enforcement Academy). Successful completion of the two modules allows students to be hired as Level III or Level II Reserve Peace Officers in California. The Department also offers some in-service POST training courses for continuing professional development.

TRANSFER MAJOR REQUIREMENTS in Administration of Justice are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Administration of Justice are qualified for career pathways in law enforcement, the courts and corrections.

Faculty

Ralph McGill
Professor, Administration of Justice
B.A., New College of California

Administration of Justice Advisory Committee

- Auburn Police Department, Auburn, CA
- California Department of Corrections & Rehabilitation (CDCR), Sacramento, CA (HQ)
- California Department of Fish & Wildlife, Sacramento, CA (HQ)
- California Department of Peace Officer Standards and Training (POST)
- California Highway Patrol (CHP), Sacramento, CA (HQ)
- Citrus Heights Police Department, Citrus Heights, CA
- Galt Police Department, Galt, CA
- Grass Valley Police Department, Grass Valley, CA
- Lincoln Police Department, Lincoln, CA
- Los Rios Community College Public Safety Programs, Sacramento, CA
- Nevada City Police Department, Nevada City, CA
- Nevada County Probation, Nevada City, CA
- Nevada County Sheriff's Office, Nevada Country, CA
- Placer County District Attorney's Office, Placer County, CA
- Placer County Probation, Placer County, CA
- Rocklin Police Department, Rocklin, CA
- Roseville Police Department, Roseville, CA
- Sacramento County Regional Parks, Sacramento County, CA
- Sacramento County Sheriff, Sacramento County, CA
- Sacramento Police Department, Sacramento, CA
- Truckee Police Department, Truckee, CA
- Whitney High School, Rocklin, CA
- Yuba College Public Safety Programs, Marysville, CA

Degrees/Certificates

Associate Degree for Transfer

- Administration of Justice for Transfer (p. 36)

Associate Degrees

- Administration of Justice—Corrections (p. 37)
- Administration of Justice—Courts (p. 37)
- Administration of Justice—Law Enforcement (p. 38)
- Modern Policing (p. 38)

Certificate of Achievement

- Reserve Peace Officer (p. 39)

Administration of Justice for Transfer
AS-T Degree

The Associate in Science in Administration of Justice for Transfer (AS-T) degree program allows students to recognize the importance of ethics and professionalism within the criminal justice field; analyze and apply legal principles to the daily operations of law enforcement, the courts and corrections; and analyze and critically evaluate information to solve problems within the criminal justice field.

The Associate in Science in Administration of Justice for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Criminal Justice, Administration of Justice or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Administration of Justice for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and

- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ADMJ 0050	Introduction to Administration of Justice	3
ADMJ 0055	Concepts of Criminal Law	3
Select 6 units from the following:		**6**
ADMJ 0052	Criminal Court Process	
ADMJ 0054	Introduction to Investigation	
ADMJ 0056	Introduction to Evidence	
ADMJ 0057	Juvenile Law and Procedure	
ADMJ 0058	Community and the Justice System	
ADMJ 0062	Introduction to Corrections	
Select 6-7 units from the following or any unused courses from the preceding area:		**6-7**
PSYC 0100	Introduction to Psychology	
SOC 0001	Introduction to Sociology	
SOC 0015	Introduction to Statistics in Sociology	
or STAT C1000	Introduction to Statistics	
or PSYC 0142	Introduction to Psychological Statistics	
Total Units		**18-19**

Administration of Justice—Corrections

AA or AS Degree

The Corrections curriculum prepares students for careers in corrections, probation and parole. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ADMJ 0050	Introduction to Administration of Justice	3
ADMJ 0055	Concepts of Criminal Law	3
ADMJ 0062	Introduction to Corrections	3
ADMJ 0067	Managing the Adult Offender	3
ADMJ 0076	Street and Prison Gangs	3
ADMJ 0151	Administration of Justice Pathways	3
Select 6 units from the following:		**6**
ADMJ 0052	Criminal Court Process	
ADMJ 0056	Introduction to Evidence	
ADMJ 0057	Juvenile Law and Procedure	
ADMJ 0061A	Firearms Familiarization	
ADMJ 0061B	Advanced Firearms	
ADMJ 0069	Institutional Corrections and Casework	
ADMJ 0070	Substantive Law - Crimes and Punishments	
ADMJ 0072	Illegal Drugs - Recognition and Influence	
ADMJ 0073	Report Writing for Criminal Justice	
ADMJ 0074	Digital Technology Used in Criminal Justice	
ADMJ 0075	Values and Ethics in Criminal Justice	
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	
ADMJ 0079	Fundamentals of Probation and Parole	
ADMJ 0080	Introduction to Crime Scene Investigation	
ADMJ 0110	PC 832 - Arrest	
ADMJ 0112	PC 832 - Firearms	
ADMJ 0200	Impact of Abuse and Violence	
SPAN 0019	Spanish for Public Safety	
Total Units		**24**

Administration of Justice—Courts

AA or AS Degree

The Courts curriculum prepares students for positions in the judicial system. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ADMJ 0050	Introduction to Administration of Justice	3
ADMJ 0052	Criminal Court Process	3
ADMJ 0055	Concepts of Criminal Law	3
ADMJ 0056	Introduction to Evidence	3
ADMJ 0057	Juvenile Law and Procedure	3
ADMJ 0151	Administration of Justice Pathways	3

Select 6 units from the following: **6**

ADMJ 0062	Introduction to Corrections
ADMJ 0067	Managing the Adult Offender
ADMJ 0070	Substantive Law - Crimes and Punishments
ADMJ 0073	Report Writing for Criminal Justice
ADMJ 0074	Digital Technology Used in Criminal Justice
ADMJ 0075	Values and Ethics in Criminal Justice
ADMJ 0076	Street and Prison Gangs
ADMJ 0077	Terrorist Tactics and the Role of the First Responder
ADMJ 0079	Fundamentals of Probation and Parole
ADMJ 0080	Introduction to Crime Scene Investigation
ADMJ 0200	Impact of Abuse and Violence
SPAN 0019	Spanish for Public Safety

Total Units **24**

Administration of Justice—Law Enforcement

AA or AS Degree

The Law Enforcement curriculum prepares students for a career as a peace officer. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ADMJ 0050	Introduction to Administration of Justice	3
ADMJ 0054	Introduction to Investigation	3
ADMJ 0055	Concepts of Criminal Law	3
ADMJ 0056	Introduction to Evidence	3
ADMJ 0058	Community and the Justice System	3
ADMJ 0151	Administration of Justice Pathways	3
Select 6-9 units from the following:		**6-9**
ADMJ 0051	Traffic Investigations and Enforcement	
ADMJ 0052	Criminal Court Process	
ADMJ 0053	Police Field Operations	
ADMJ 0057	Juvenile Law and Procedure	
ADMJ 0061A	Firearms Familiarization	
ADMJ 0061B	Advanced Firearms	
ADMJ 0061C	Firearms: Semi-Automatics	
ADMJ 0061D	Firearms Instructor	
ADMJ 0062	Introduction to Corrections	

ADMJ 0070	Substantive Law - Crimes and Punishments
ADMJ 0072	Illegal Drugs - Recognition and Influence
ADMJ 0073	Report Writing for Criminal Justice
ADMJ 0074	Digital Technology Used in Criminal Justice
ADMJ 0075	Values and Ethics in Criminal Justice
ADMJ 0076	Street and Prison Gangs
ADMJ 0077	Terrorist Tactics and the Role of the First Responder
ADMJ 0078	Introduction to Public Safety Dispatch
ADMJ 0079	Fundamentals of Probation and Parole
ADMJ 0080	Introduction to Crime Scene Investigation
ADMJ 0088	Computer Forensics Fundamentals (Also IT 0165)
ADMJ 0110	PC 832 - Arrest
ADMJ 0112	PC 832 - Firearms
ADMJ 0115	POST Module III Academy Training
ADMJ 0120	POST Module II Academy Training
ADMJ 0200	Impact of Abuse and Violence
SPAN 0019	Spanish for Public Safety

Total Units **24-27**

Modern Policing

AS Degree

Successful completion of the curriculum in Modern Policing prepares students for a wide variety of careers in the field of law enforcement, including patrol, detectives, S.W.A.T., narcotics, reserves, K-9 handler, traffic, and more.

For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ADMJ 0050	Introduction to Administration of Justice	3
ADMJ 0055	Concepts of Criminal Law	3
ADMJ 0058	Community and the Justice System	3
ADMJ 0075	Values and Ethics in Criminal Justice	3
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	3
COMM C1000	Introduction to Public Speaking	3
COMM 0007	Intercultural Communication	3
ENGL C1000	Academic Reading and Writing	4

ENGL C1001	Critical Thinking and Writing	3
PHIL 0002	Introduction to Philosophy: Ethics	3
PSYC 0103	Social Psychology	3
SOC 0110	Introduction to Social Justice	3
Select 3 units from the following:		**3**
ADMJ 0052	Criminal Court Process	
ADMJ 0056	Introduction to Evidence	
ADMJ 0054	Introduction to Investigation	
ADMJ 0057	Juvenile Law and Procedure	
Select 3-6 units from the following:		**3-6**
MATH 0011	Data Science for All	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0015	Introduction to Statistics in Sociology	
STAT C1000	Introduction to Statistics	
or STAT C1000E	Introduction to Statistics Embedded Support	
Select 3 units from the following:		**3**
HDEV 0004	Child, Family, and Community	
SOC 0009	Introduction to Crime, Deviance, and Social Control	
Total Units		**46-49**

Reserve Peace Officer

Certificate of Achievement

The Sierra College Administration of Justice Department is recognized by the CA Commission on Peace Officer Standards and Training (POST) as a certified Presenter of POST Law Enforcement Modular Academy Training courses, Modules III and II. The Reserve Peace Officer Certificate of Achievement would be issued to students who have successfully completed both of these courses, making them eligible to serve as Level III or Level II Reserve Peace Officers respectively. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
ADMJ 0115	POST Module III Academy Training	8
ADMJ 0120	POST Module II Academy Training	9.5
Total Units		**17.5**

Courses

Understanding course descriptions (p. 311)

ADMJ 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

ADMJ 0050. Introduction to Administration of Justice
Units: 3
Hours: 54 lecture
Exploration of the history and philosophical roots of the U.S. justice system; in-depth study of the system and its sub-systems with emphasis on the total environment in which they operate; roles and role expectations of professionals as perceived from within and outside of the system; study of theories of crime, punishment, rehabilitation; exploration of research methodology of the discipline; analysis of the system interrelationship with society, punishments and incarceration alternatives. (C-ID AJ 110) (CSU, UC)

ADMJ 0051. Traffic Investigations and Enforcement
Units: 3
Hours: 54 lecture
Study of traffic management and enforcement. Emphasis on traffic law enforcement procedures, Vehicle Code violations, public safety, and collision investigations. (CSU)

ADMJ 0052. Criminal Court Process
Units: 3
Hours: 54 lecture
Comprehensive examination of the origin, development, philosophy and legal basis of criminal procedures in California; procedural statutes, case law, constitutional law and judicial rules governing pre-arrest, arrest, custody, crime charging, motions; applicable rules of discovery and evidence; California grand jury system; pretrial court procedures; adult and juvenile court procedures; verdict, sentencing and the appellate process. (C-ID AJ 122) (CSU)

ADMJ 0053. Police Field Operations
Units: 3
Hours: 54 lecture
History and development of patrol philosophy; field activities including patrol, complaints, requests for services, field interviews, searches, arrests, traffic problems, disturbances and other community or criminal incidents. (CSU)

ADMJ 0054. Introduction to Investigation
Units: 3
Hours: 54 lecture
Fundamentals of investigation; addresses the techniques, procedures, and investigation of crime, including organization of crime scene searches and recording; collection and preservation of evidence; sources of information; surveillance; interview and interrogation; follow-up investigation; resources; scientific analysis of evidence, case preparation and the role of the investigator in the trial process. (C-ID AJ 140) (CSU)

ADMJ 0055. Concepts of Criminal Law
Units: 3
Hours: 54 lecture
Historical development, philosophy of common and statutory law, and constitutional provisions related to due process; definitions, classifications, and general elements of crimes as applied to the administration of justice; legal research, review of case law, methodology, and concepts of law as a social force and analysis of criminal liability, defense to crimes and the classification of crimes against persons, property, morals and public welfare. (C-ID AJ 120) (CSU, UC)

ADMJ 0056. Introduction to Evidence
Units: 3
Hours: 54 lecture
Origin, development, philosophy and legal basis of evidence; types of evidence; ways of presenting evidence; judicial decisions and statutory rules of evidence governing the admissibility of testimony, writings, materials and objects at a criminal trial; constitutional and procedural considerations affecting searches, seizures, admissions, confessions and methods of identification. (C-ID AJ 124) (CSU)

ADMJ 0057. Juvenile Law and Procedure
Units: 3
Hours: 54 lecture
Organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles; techniques of handling juvenile offenders and victims; prevention and suppression of delinquency; diagnosis and referral; community resources; law and court procedures. (C-ID AJ 220) (CSU)

ADMJ 0058. Community and the Justice System
Units: 3
Hours: 54 lecture
In-depth survey of the relationship between the criminal justice system and the community; causal and symptomatic aspects of community misunderstanding, lack of cooperation and mistrust; the concept that community relations develop through a continuing process of interaction between the criminal justice system and members of the public. Methods for understanding how such a relationship is developed, changed and maintained. Examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population. (C-ID AJ 160) (CSU, UC)

ADMJ 0061A. Firearms Familiarization
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Introductory course covering history of firearms, types and selection of weapons, ammunition and auxiliary equipment, firearm nomenclature, principles of safe shooting, weapon safety, maintenance and care, legal and moral aspects of weapon usage for both law enforcement and non-law enforcement, and development of individual shooting skills and safety. Qualifying at the firing range with a handgun. Safety fee required. (not transferable)

ADMJ 0061B. Advanced Firearms
Units: 2
Advisory: Completion of any of the following: ADMJ 61A; 61C; 112; 115; 120; POST Basic Law Enforcement Academy
Hours: 54 (27 lecture, 27 laboratory)
An advanced course further developing skills and theory introduced in ADMJ 61A, with practical applications in varied complex settings. Emphasis on further study and practice of functional testing of firearms, sight alignment adjustments, and self-evaluation of shooting performance. Development of additional skills and knowledge necessary to teach firearm safety and techniques to enhance shooting skills. Safety fee required. (not transferable)

ADMJ 0061C. Firearms: Semi-Automatics
Units: 2
Advisory: Completion of any of the following: ADMJ 61A; 61B; 112; 115; 120; POST Basic Law Enforcement Academy
Hours: 54 (27 lecture, 27 laboratory)
Practical semi-automatic handgun course. Includes history and evolution of semi-automatics, types and uses, nomenclature, ammunition, marksmanship techniques, malfunctions, safety, and development of individual shooting skills. Safety fee required. (not transferable)

ADMJ 0061D. Firearms Instructor
Units: 2
Advisory: Successful completion of ADMJ 61A, 61B and 61C, or equivalent Firearms training, as determined by the course Instructor and/or ADMJ Department Coordinator
Hours: 54 (36 lecture, 18 laboratory)
Knowledge and skills to train others in firearm safety, marksmanship and range program development. Includes fundamentals of marksmanship, curriculum development, firearms safety, range management, handgun/shotgun theory and nomenclature, developing qualification courses and diagnosing shooting problems through practical shooting exercises. Firearms Instructor certificate issued for those achieving 80% on the written examination and range qualifications. (not transferable)

ADMJ 0062. Introduction to Corrections
Units: 3
Hours: 54 lecture
Provides a history and critical analysis of the various types of punishment, alternatives to punishment, and impact of punishment on the criminal justice system; explanations of criminal behavior; functions and objectives of the criminal justice system concerned with institutionalization, probation, parole, and other sentencing alternatives; critical examination of the types of correctional institutions, their clients, and contemporary correctional issues. (C-ID AJ 200) (CSU)

ADMJ 0067. Managing the Adult Offender
Units: 3
Advisory: Completion of ADMJ 62 with grade of "C" or better
Hours: 54 lecture
Survey course emphasizing behavior and characteristics of male and female offenders and the role of the correctional employee. Institutional environment, inmate subcultures, values, victimology, and gangs also discussed and analyzed. Population management issues, statistics, inmate rights, discipline and contemporary custody and treatment techniques identified and studied. (CSU)

ADMJ 0069. Institutional Corrections and Casework
Units: 3
Formerly known as ADMJ 63 and 66
Advisory: Completion of ADMJ 62 or 67 with grade of "C" or better
Hours: 54 lecture
Institutional security levels, operations, and design. Inmate classification, institutional programs, treatment and intervention modalities and casework responsibility. Fiscal issues, legislation, current issues and societal attitudes affecting corrections. Custodial and ancillary career opportunities. Tours of various correctional institutions required. (CSU)

ADMJ 0070. Substantive Law - Crimes and Punishments
Units: 3
Hours: 54 lecture
An in-depth study of Penal Code and other Codes which have an application to law enforcement and administration of justice. Includes misdemeanor and felony violations of the criminal statutes involving crimes against persons and property, public peace, dangerous weapons, narcotics, and vice violations. (CSU)

ADMJ 0072. Illegal Drugs - Recognition and Influence
Units: 3
Hours: 54 lecture
Study of current drugs of abuse including identification, street terms, prices, methods of use, history, and recognizing persons under the influence. Current law and law enforcement trends. Introduction to human physiology and drugs. (CSU)

ADMJ 0073. Report Writing for Criminal Justice
Units: 3
Hours: 54 lecture
Techniques for effectively communicating factual information in a clear, concise and thorough manner in the various types of reports used within the criminal justice system; emphasis on criminal justice terminology, use of English, and organization of information; practical experience in interviewing, note taking and report writing throughout the criminal justice system. (CSU)

ADMJ 0074. Digital Technology Used in Criminal Justice
Units: 3
Hours: 54 lecture
An overview of Information and Technology systems and strategies used in the administration of criminal justice; applying these systems and information across the spectrum of Crime Prevention and Intervention in a holistic manner to address Law Enforcement Investigations and Community Safety; topics covered include CAD (Computer Aided Dispatch), RMS (Records Management Systems), CCTV, Video Surveillance, Dash-Cams and Body-Cams, Automated License Plate Readers, Automated Gunshot Detection Systems, etc. (CSU)

ADMJ 0075. Values and Ethics in Criminal Justice
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
This course provides an introduction to concepts and theories of ethical decision-making, moral conduct, obligation, and permission, justice, and responsibility in administration of justice professions. The role of ethics, codes of conduct and appropriate moral judgments necessary in the field will be examined. Provides an understanding of values and integrity which must be displayed, and communication skills necessary to be an effective criminal justice practitioner. (CSU)

ADMJ 0076. Street and Prison Gangs
Units: 3
Hours: 54 lecture
Theories of gang membership and behavior; law enforcement, community, and correctional intervention; characteristics and activities of prison and street gangs; impact on correctional and law enforcement operations and society. (CSU)

ADMJ 0077. Terrorist Tactics and the Role of the First Responder
Units: 3
Hours: 54 lecture
Through the use of case studies, first responders gain knowledge and understanding of terrorist behavior, typologies of terrorism and extremism, its ideology and role in domestic and international terrorism, preventative measures, threat, vulnerability and risk assessment procedures, weaponry, post-blast issues and other concerns. (CSU)

ADMJ 0078. Introduction to Public Safety Dispatch
Units: 3
Also known as FIRE 80 and HSCI 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

ADMJ 0079. Fundamentals of Probation and Parole
Units: 3
Hours: 54 lecture
Provides an overview of Probation, Parole, and Supervised Release, as well as a modern-day comparison of each type of Correctional supervision. The coursework highlights tasks associated with pre-sentence investigations and supervision as well as the requirements and challenges of delivering purposeful, individualized, proportional, multidimensional, proactive, and responsive supervision that contributes to successful re-entry into society. This course also provides a combination of relevant course readings, interactive lesson plans, scenario-based exercises, and arranged courtroom and in-field experiences. (CSU)

ADMJ 0080. Introduction to Crime Scene Investigation
Units: 3
Hours: 54 lecture
Fundamentals of crime scene investigation and the forensic sciences for the basic investigator and field crime scene technician; addresses the theory, techniques, and procedures for evidence identification and collection at major and minor crime scenes; preservation of evidence, chain of custody; roles and responsibilities of investigators; scientific principals of forensics; inter-agency collaboration and resources; proper documentation in preparation for criminal trials. (CSU)

ADMJ 0088. Computer Forensics Fundamentals
Units: 3
Also known as IT 165
Advisory: Completion of ADMJ 54 and IT 120 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the methods used to properly conduct a computer forensics investigation, beginning with a discussion of ethics, while mapping the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools. (C-ID ITIS 165) (CSU)

ADMJ 0095. Internship in Administration of Justice
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

ADMJ 0110. PC 832 - Arrest
Units: 2
Hours: 44 (36 lecture, 8 laboratory)
This POST course covers ethics, courts, community relations, laws of arrest, use of force, search and seizure, investigations, and arrest and control methods. Meets California Penal Code Section 832 requirement for individuals having limited Peace Officer powers to complete a training course prescribed by the CA Commission on Peace Officer Standards and Training (POST). No longer meets modular Police Academy requirements. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0112. PC 832 - Firearms
Units: 0.5
Advisory: Completion of ADMJ 110 with grade of "C" or better
Hours: 24 (8 lecture, 16 laboratory)
This POST course covers legalities related to use of lethal force, shooting principles, safety guidelines and range qualifications. Meets California Penal Code Section 832 firearms requirement for individuals having limited Peace Officer powers to complete a training course prescribed by the Commission on Peace Officer Standards and Training (POST). Students are required to present a California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. May be repeated for credit to meet legally mandated education/training requirements. (pass/no pass grading) (not transferable)

ADMJ 0115. POST Module III Academy Training
Units: 8
Hours: 179 (131 lecture, 48 laboratory)
Satisfies Module III training requirements of the Commission on Peace Officer Standards and Training Module III. Covers professionalism and ethics, report writing, preservation of evidence, crimes against the justice system, vehicle operations, traffic enforcement, laws of search and seizure, custody, arrest/control/baton, emergency care, firearms/chemical agents, community policing, information systems and cultural diversity issues. Students are required to obtain California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. Students must also possess a valid driver's license and vehicle insurance during the course. Safety and materials fees required. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0120. POST Module II Academy Training
Units: 9.5
Hours: 231 (143 lecture, 88 laboratory)
Satisfies training requirements of the Commission on Peace Officer Standards and Training Module II. Covers community relations, criminal laws, search and seizure, evidence, report writing, enforcement techniques, crime scene investigation, property crimes, crimes against persons, investigations, arrest and control, firearms/chemical agents, crimes against the justice system, and cultural diversity/discrimination. Students are required to have successfully completed Commission on Peace Officer Standards and Training Module III training standards and to obtain California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. Students are required to possess a valid driver's license and vehicle insurance during the course. Students are also required to have passed the POST Entry Level Law Enforcement Test Battery (PELLETB) with a minimum t-score of 42 within one year prior to the first day of class. Safety and materials fees required. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0151. Administration of Justice Pathways
Units: 3
Hours: 54 lecture
Covers career pathways in Administration of Justice. Includes educational planning of available degree programs, labor market research, and the hiring process: development of a resume, background investigations, Personal History Statements, interview dynamics, and hiring examinations. (CSU)

ADMJ 0200. Impact of Abuse and Violence
Units: 3
Hours: 54 lecture
Covers historical, cultural, psychological and social precursors and effects of the three primary forms of domestic violence: spousal/partner, child and elder abuse. Responsibilities and roles of law enforcement, prosecution, court, corrections, medical and social service professionals are studied. Crisis intervention, multi-disciplinary investigation and interviewing, forensic examination and adjudication issues are addressed. Examines other legal issues including mandated reporting and protective orders and explores both prevention and intervention resources available in the community. (not transferable)

Program Student Learning Outcomes

- Justify the importance of ethical behavior as it relates to the social contract between citizens and the justice system.
- Demonstrate effective oral and written communication skills.
- Demonstrate competency in the functional relationships between the three components of the criminal justice system (Law Enforcement, Courts, and Corrections).
- Develop skills necessary to successfully engage a career in the Administration of Justice field.
- Analyze and critically evaluate information to solve problems within the Criminal Justice field.
- Analyze and apply constitutional and legal principals to the Administration of Justice contemporary society.

Advanced Manufacturing
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Gain hands-on skills to design, build and manufacture in the Computer Numeric Control (CNC) machining courses held in our state-of-the-art machining center. This program is affiliated with Gene Haas Foundation of Haas Automation, the largest CNC machine tool builder in the western world.

Learn the latest technologies and get exposure to the entire spectrum of manufacturing. Delve into computer modeling and creation. Design for technology applications on our brand-new Haas machines.

Advanced Manufacturing Advisory Committee

- AB Tools Inc., Lincoln, CA
- BackFlow Direct-Watts Water, Rancho Cordova, CA
- Folsom High School, Folsom, CA
- GBC Materials
- Golden Sierra Job Training Agency, Roseville, CA
- InSight Manufacturing Services, Rancho Cordova, CA
- John F Kennedy High School, Sacramento, CA
- Kratos Unmanned Aerial System
- Microform Precision LLC, Sacramento, CA
- Nevada Union High School, Grass Valley, CA
- Oasis Precision, Rocklin, CA

Degrees/Certificates

Associate Degree

- Advanced Manufacturing (p. 43)
- Advanced Manufacturing - Drafting Mechanical/Civil (p. 43)
- **Certificate of Achievement**
- Advanced Manufacturing (p. 44)
- Advanced Manufacturing - Drafting Mechanical/Civil (p. 44)
- **Skills Certificate**
- Drafting Essentials (p. 44)
- Foundations of Modern Machining (p. 44)
- Mechanical Drafting Specialist (p. 44)

Advanced Manufacturing

AS Degree

The Sierra College Advanced Manufacturing Program prepares students for C.N.C. machining and is also ideal for students who need to upgrade prior machine shop training to comply with the current needs of industry.

For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California State University General Education Breadth pattern (p. 311);
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 311).

Required Courses:

Code	Title	Units
ADVM 0001	Technical Drafting I	3
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	3
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	2.5
ADVM 0063	Design and 2-D Manufacturing of 3-D Objects	2
ADVM 0064	Computer-Aided 2D Design	3
ADVM 0066	CNC Milling Level 1	3
ADVM 0067	CNC Milling Level 2	3

Code	Title	Units
ADVM 0068	CNC Milling with 4th and 5th Axis	3
WELD 0001A	Introduction to Welding and Fabrication	2
Select 4-7 units from the following:		**4-7**
MECH 0004	Fundamentals of Mechatronics	
ADVM 0002	Technical Drafting II	
ADVM 0012	Geometric Dimensioning and Tolerancing	
WELD 0002A	Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate	
WELD 0003B	Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate	
Total Units		**28.5-31.5**

Advanced Manufacturing - Drafting Mechanical Civil

(formerly Drafting and Engineering Support—Mechanical/Civil)

AA or AS Degree

Successful completion of the curriculum in Advanced Manufacturing —Drafting Mechanical/Civil prepares students for entry-level positions as document support technicians in the fields of mechanical and civil engineering. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California State University General Education Breadth pattern (p. 311);
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 311).

Required Courses

Code	Title	Units
ADVM 0001	Technical Drafting I	3
ADVM 0002	Technical Drafting II	3
ADVM 0011	Three-Dimensional Modeling	3
ADVM 0012	Geometric Dimensioning and Tolerancing	3
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	2.5
ADVM 0063	Design and 2-D Manufacturing of 3-D Objects	2
ADVM 0066	CNC Milling Level 1	3
ADVM 0067	CNC Milling Level 2	3
ADVM 0095	Internship in Advanced Manufacturing	0.5-4
Total Units		**23-26.5**

Optional Recommended Electives:

Code	Title	Units
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	
BI 0015	Managing the Computer-Aided Design (CAD) Environment	
ENGR 0180	Engineering Surveying	

Code	Title	Units
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	

Advanced Manufacturing
Certificate of Achievement
The Advanced Manufacturing certificate of achievement provides a comprehensive understanding of the skills necessary for success in the Advanced Manufacturing industry. This program is designed to enable the student to enter industry with problem-solving skills in design, production, planning, materials handling, quality control, inspection and programming with computer-aided controls. The student, upon the successful completion of the program, will have job−entry skill and career advancement opportunities.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	2.5
ADVM 0063	Design and 2-D Manufacturing of 3-D Objects	2
ADVM 0064	Computer-Aided 2D Design	3
ADVM 0066	CNC Milling Level 1	3
ADVM 0067	CNC Milling Level 2	3
ADVM 0068	CNC Milling with 4th and 5th Axis	3
Total Units		**16.5**

Advanced Manufacturing - Drafting Mechanical Civil
(formerly Drafting and Engineering Support—Mechanical/Civil)

Certificate of Achievement
Successful completion of the curriculum in Advanced Manufacturing—Drafting Mechanical/Civil prepares students for entry-level positions as document support technicians in the fields of mechanical and civil engineering. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ADVM 0001	Technical Drafting I	3
ADVM 0002	Technical Drafting II	3
ADVM 0011	Three-Dimensional Modeling	3
ADVM 0012	Geometric Dimensioning and Tolerancing	3
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	2.5
ADVM 0063	Design and 2-D Manufacturing of 3-D Objects	2
ADVM 0066	CNC Milling Level 1	3
ADVM 0067	CNC Milling Level 2	3
ADVM 0095	Internship in Advanced Manufacturing	0.5-4
Total Units		**23-26.5**

Optional Recommended Electives:

Code	Title	Units
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	
BI 0015	Managing the Computer-Aided Design (CAD) Environment	
ENGR 0180	Engineering Surveying	
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	

Drafting Essentials
Skills Certificate
Designed to give students the basic drafting support knowledge and abilities required to enter the workforce at an entry level. Focuses on skills relative to the fields of architecture and mechanical computer-aided drafting (CAD). Appropriate for students seeking retraining. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ADVM 0001	Technical Drafting I	3
ADVM 0002	Technical Drafting II	3
BI 0010	Architectural Drawing I	3
BI 0011	Architectural Drawing II	3
Total Units		**12**

Foundations of Modern Machining
Skills Certificate
Designed to give students modern manufacturing skills, knowledge, and abilities required to enter the workforce. Also intended for entrepreneurs seeking the fundamental skills to get started in modern manufacturing.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	2.5
ADVM 0066	CNC Milling Level 1	3
ADVM 0067	CNC Milling Level 2	3
Total Units		**8.5**

Mechanical Drafting Specialist
Skills Certificate
Designed to give students the advanced drafting support knowledge and abilities required to enter the workforce at the specialist level. Focuses on skills relative to specialized mechanical documentation such as is used in aerospace and automotive drafting. Appropriate for students seeking retraining. Will help successful candidates prepare to sit for the professional ASME (American Society of Mechanical Engineers) Y14.5 Geometric Dimensioning and Tolerancing certification exam. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ADVM 0001	Technical Drafting I	3
ADVM 0002	Technical Drafting II	3
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	3
ADVM 0011	Three-Dimensional Modeling	3
ADVM 0012	Geometric Dimensioning and Tolerancing	3
Total Units		**15**

Courses

Understanding course descriptions (p. 311)

ADVM 0001. Technical Drafting I
Units: 3
Formerly known as DES 1
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Fundamental use of design equipment to create both two dimensional technical sketches and two and three dimensional computer generated (CAD) working drawings that are used for product definition. Introduction to product and process definition as specified by engineering design disciplines. This course teaches introductory 3D AutoCAD skills. Designed for students with no previous experience in engineering design/drafting. (CSU)

ADVM 0002. Technical Drafting II
Units: 3
Formerly known as DES 2
Prerequisite: Completion of ADVM 1 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Intermediate concepts of engineering design including sections, auxiliaries, threads, fasteners, and dimensional tolerancing. Basic concepts of Geometric Dimensioning and Tolerancing. Design for manufacturability and assembly explored to include material selection and properties of materials. This course teaches intermediate/advanced 3D AutoCAD skills. Designed for students who have attained a fundamental knowledge of the processes and practices of engineering design/drafting. (CSU)

ADVM 0003D. Design for Additive Manufacturing - 3D Printing
Units: 3
Formerly known as DES 3D
Hours: 90 (36 lecture, 54 laboratory)
Design for the additive manufacturing industry (3D printing). An in-depth look at the product design process and how it is used to create complex geometric models to satisfy defined requirements. An exploration of additive manufacturing's (or 3D printing's) impact on conventional manufacturing. Designed for students who are planning to pursue a career in Advanced Manufacturing. (not transferable)

ADVM 0011. Three-Dimensional Modeling
Units: 3
Formerly known as DES 11
Prerequisite: Completion of ADVM 2 or ADVM 3D or MECH 44 or ENGR 151 or ADVM 66 with grade of "C" or better; or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Processes employed in developing design solutions using a feature based parametric solid modeler. Includes 3D part and assembly modeling, and the development of 2-dimensional part, assemblies, welding and sheet metal drawings per ASME standards. SolidWorks is the solid modeler used. (CSU, UC)

ADVM 0012. Geometric Dimensioning and Tolerancing
Units: 3
Formerly known as DES 12
Prerequisite: Completion of ADVM 2 or ADVM 11 or ADVM 66 or ENGR 151 with grade of "C" or better or equivalent as determined by instructor
Hours: 54 lecture
Expands upon basic knowledge of dimensioning mechanical drawings by adding form and feature controls in order to clearly define parts. Review of basic dimensioning and tolerancing. Topics, as defined in ASME Standards, include geometric tolerancing symbols and terms, rules of geometric dimensioning and tolerancing, datums, material condition symbols, tolerances of form and profile, tolerances of orientation and runout, location tolerances and virtual condition. (CSU)

ADVM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ADVM 0062. Introduction to Computer Aided Design and Computer Aided Manufacturing
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Computer Aided Design (CAD) parametric modeling and Computer Aided Manufacturing (CAM) using CAD/CAM software. Covers practical on-the-job parametric modeling skills needed for precision machining. Students will learn skills needed to read and understand detailed drawings, create 3D CAD model files, develop a process plan for machining parts, and create CNC tool paths for manufacturing processes. (not transferable)

ADVM 0063. Design and 2-D Manufacturing of 3-D Objects
Units: 2
Hours: 72 (18 lecture, 54 laboratory)
Students will learn the basic working principles of water jet cutting, laser cutting, laser engraving, plasma cutting, CNC and manual press brake machinery. Class projects will be modeled using computer software and then cut, engraved, or formed using the appropriate manufacturing process for the job. (not transferable)

ADVM 0064. Computer-Aided 2D Design

Units: 3

Formerly known as WELD 64

Hours: 90 (36 lecture, 54 laboratory)

Study of Computer Numerically Controlled (CNC) cutting systems in the 2D world using industry standard hardware and development software. Topics include design principles, copyright, selection of materials, billing of materials and job estimating, basic G and M code commands, use of consumables, cut quality evaluation, and trouble-shooting techniques. (not transferable)

ADVM 0066. CNC Milling Level 1

Units: 3

Formerly known as WELD 66

Hours: 90 (36 lecture, 54 laboratory)

Intermediate course making billet aluminum parts from start to finish using HAAS CNC milling machines. Students will learn how to set up and operate HAAS CNC vertical machining centers. After the parts have been machined, students will use common industry measuring and inspection techniques to insure their parts are in tolerance. (not transferable)

ADVM 0067. CNC Milling Level 2

Units: 3

Formerly known as WELD 67

Prerequisite: Completion of ADVM 62 and ADVM 66 with grade of "C" or better

Hours: 90 (36 lecture, 54 laboratory)

Applications using three-axis CNC machining. Developing complicated part geometry with Computer Aided Design (CAD), importing files, planning machine operations, and developing machine codes by Computer-Aided Machining (CAM). Includes simulation modeling used to proof the assigned laboratory exercises and set-up for 3 axis operation of CNC machining centers. (not transferable)

ADVM 0068. Advanced Mill 4th and 5th Axis

Units: 3

Prerequisite: Completion of ADVM 67 with grade of "C" or better

Hours: 90 (36 lecture, 54 laboratory)

Advanced CNC machining 4th and 5th axis Mill work. Developing complicated part geometry with Computer Aided Design (CAD), Post process CAM tool path development, planning machine operations, and developing machine codes and techniques for cost effectiveness. CNC Lathe operations. (CSU)

ADVM 0095. Internship in Advanced Manufacturing

Units: 0.5-4

Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Create and analyze basic CAD drawing files for use in mechanical systems
- Evaluate an industrial process based on principles of Computer Integrated Manufacturing
- Identify necessary tools and describe tool offsets and part offsets for machining designed parts

- Design programing using CAM and basic G code to machine parts on a CNC turning center and CNC milling center that meet the part specification
- Describe and evaluate Geometric Dimensioning and tolerancing of parts from design

Agriculture

Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

Sustainable agriculture is an integrated system of plant and animal production practices having a site-specific application that will, over the long-term, satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agriculture economy depends; make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; sustain the economic viability of farm operations and enhance the quality of life for farmers and society as a whole.

TRANSFER AND MAJOR REQUIREMENTS in Agriculture are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Faculty

Michelle S. Macfarlane
Professor, Agriculture
B.S., California State University, Chico
M.S., University of California, Davis

Shannon Spears
Professor, Agriculture
B.S., Cal Poly State University, San Luis Obispo
M.S., Cal Poly State Uiniversity, San Luis Obispo

Agriculture Advisory Committee

- Agricultural Commissioner, Placer County, CA
- Bruin Ranch, Sacramento, CA
- D & D Farms, Sacramento and Yuba City, CA
- Del Oro High School, Loomis, CA
- Deputy Sector Navigator, Ag., Water and Environmental Technology
- Flying Mule Farms, Auburn, CA
- Foresthill High School, Foresthill, CA
- Fowler Nursery, Newcastle, CA
- Highland Orchard, Penryn, CA
- Lincoln High School, Lincoln, CA
- Nevada Union High School, Grass Valley, CA
- Placer County Planning Commission, Placer County, CA

- Placer Grown, Auburn, CA
- Placer High School, Auburn, CA
- Sierra Foothill Research & Extension Center, Browns Valley, CA
- Snow's Citrus, Newcastle, CA
- UCCE Livestock & Natural Resources Advisor

Degrees/Certificates

Associate Degree

- Sustainable Agriculture (p. 47)

Certificate of Achievement

- Sustainable Agriculture (p. 47)

Skills Certificate

- Sustainable Agriculture Business (p. 47)
- Urban and Wildland Forestry (p. 48)

Sustainable Agriculture
AS Degree
(formerly Agriculture)

The Sustainable Agriculture major combines the skills and knowledge to incorporate economic viability, environmental stewardship and social responsibility in food and farming systems. This broad-based degree combines plant and soil science, animal science and business in a hands-on approach to prepare students for the workforce or for transfer to a four-year institution. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
AGRI 0156	Introduction to Plant Science (also BIOL 21)	4
AGRI 0196	Introduction to Sustainable Agriculture	3
AGRI 0200	Introduction to Animal Science	4
AGRI 0215	Introduction to Agricultural Business and Economics	3
AGRI 0221	Introduction to Soil Science	3
Select 6-8 units from the following:		**6-8**
AGRI 0095	Internship in Agriculture (up to 4 units)	
AGRI 0159	Integrated Pest Management	
AGRI 0160B	Methods of Propagation	
AGRI 0164	Sustainable Tree Care	
AGRI 0198	Food, Society and the Environment	
AGRI 0203	Animal Feeds and Nutrition	
AGRI 0212	Direct Farm Marketing	
AGRI 0213	Agriculture Mechanics	
Total Units		**23-25**

Sustainable Agriculture
Certificate of Achievement
(formerly Agriculture)

The Sustainable Agriculture major combines the skills and knowledge to incorporate economic viability, environmental stewardship and social responsibility in food and farming systems. This broad-based certificate combines plant and soil science, animal science and business in a hands-on approach to prepare students for the workforce or for transfer to a four-year institution. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AGRI 0156	Introduction to Plant Science (also BIOL 21)	4
AGRI 0196	Introduction to Sustainable Agriculture	3
AGRI 0200	Introduction to Animal Science	4
AGRI 0215	Introduction to Agricultural Business and Economics	3
AGRI 0221	Introduction to Soil Science	3
Select 6-8 units from the following:		**6-8**
AGRI 0095	Internship in Agriculture (up to 4 units)	
AGRI 0159	Integrated Pest Management	
AGRI 0160B	Methods of Propagation	
AGRI 0164	Sustainable Tree Care	
AGRI 0198	Food, Society and the Environment	
AGRI 0203	Animal Feeds and Nutrition	
AGRI 0212	Direct Farm Marketing	
AGRI 0213	Agriculture Mechanics	
Total Units		**23-25**

Sustainable Agriculture Business
Skills Certificate
Designed to give students the small sustainable farm business management knowledge and abilities to successfully enter the workforce as a small farm owner or manager. This skills certificate focuses on skills and knowledge relative to the principles of agribusiness management, sustainable agriculture and direct farm marketing. This is a specialty certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AGRI 0196	Introduction to Sustainable Agriculture	3
AGRI 0212	Direct Farm Marketing	2
AGRI 0215	Introduction to Agricultural Business and Economics	3

BUS 0242	Entrepreneurship - Small Business Management	3
Total Units		**11**

Urban and Wildland Forestry
Skills Certificate

Designed to prepare students for employment as utility foresters who assess trees and other vegetation in utility right-of-ways to prevent interference with high voltage lines and other utility equipment. Utility Foresters work independently in urban and wildland areas, and interface with land owners to explain required vegetation management. A skills certificate is designed to provide technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AGRI 0164	Sustainable Tree Care	3
BIOL 0024	Wildland Trees and Shrubs (Dendrology) (Also AGRI 0163)	4
COMM 0008	Interpersonal Communication	3
Total Units		**10**

Courses

Understanding course descriptions (p. 311)

AGRI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

AGRI 0095. Internship in Agriculture
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AGRI 0156. Introduction to Plant Science
Units: 4
Also known as BIOL 21
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Emphasizes structure, growth, physiology and reproduction of flowering plants and their responses to modifications and environment; including propagation, media, soil and plant nutrition. Explores the interrelationship of plant science with other life sciences and technology. Applies principles of plant science to agricultural systems. (CSU, UC)

AGRI 0159. Integrated Pest Management
Units: 3
Formerly known as HORT 52
Hours: 54 lecture
Comprehensive study of integrated pest management with emphasis on sustainable management practices of landscape and small crop pests. Includes identification and study of insects, weeds, plant diseases, vertebrate pests, and beneficial organisms. Studies least toxic pest control strategies, labeling, formulations and safe handling of pesticides. (CSU)

AGRI 0160B. Methods of Propagation
Unit: 1
Formerly known as HORT 134B
Hours: 54 laboratory
Provides an advanced level of skill, technique and experience in spring plant production. In-depth studies of propagation materials, sexual and asexual reproduction, transplanting and planting. Preparation and use of propagation and planting media. (not transferable)

AGRI 0163. Wildland Trees and Shrubs (Dendrology)
Units: 4
Also known as BIOL 24
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A study of botanical characteristics, taxonomy, and physiology of the major trees and shrubs in the Western United States with emphasis on California. Discussion of plant community relationships, geographical ranges, and human impact on forest ecosystems. Identifying specimens under field conditions and using herbarium specimens. (CSU)

AGRI 0164. Sustainable Tree Care
Units: 3
Formerly known as HORT 40
Hours: 90 (36 lecture, 54 laboratory)
Sustainable arboriculture principles and practices for management and care of trees in urban, agricultural, and wildland-urban interface settings. Includes tree biology and culture; landscape tree identification; industry-approved tree maintenance, planting, staking, and pruning techniques; tree risk assessment and mitigation; appropriate selection and pruning of fruit trees. Basic concepts in forest management and current issues in urban and wildland forestry will also be covered. (CSU)

AGRI 0196. Introduction to Sustainable Agriculture
Units: 3
Hours: 54 lecture
Introduction to the concepts and principles of agroecology as applied to the design and management of sustainable agricultural systems. Includes examination of case studies connecting sustainable agriculture principles to farming practices. (CSU, UC)

AGRI 0198. Food, Society and the Environment
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Multiple perspectives and global connections between the environment, society and food production. Emphasis on agriculture's central position between nature and society and its key role in humanity's search for a productive and sustainable environment. (CSU, UC)

AGRI 0200. Introduction to Animal Science
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A scientific approach to the field of animal science and the interrelationships of domestic animals and their contribution to the modern agriculture industry. Introduces various disciplines, including cell function, genetics, anatomy and physiology, reproduction, nutrition, animal health, animal products and animal behavior. (C-ID AG-AS 104) (CSU, UC)

AGRI 0203. Animal Feeds and Nutrition
Units: 4
Formerly known as AGRI 12
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
An introduction to the feeds and nutrition of animals including basic digestive system anatomy and physiology; composition and selection of feeds; characteristics of nutrients; principles of nutrition; nutrient requirements of non-ruminant and ruminant animals; and formulating diets to meet these requirements. (CSU)

AGRI 0212. Direct Farm Marketing
Units: 2
Hours: 36 lecture
Overview of direct farm marketing. Includes innovative marketing alternatives for the small to medium size grower, proven methods of product development, promotion, pricing and distribution. (not transferable)

AGRI 0213. Agriculture Mechanics
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Shop skills essential to mechanized agriculture, including welding, metal and wood fabrication tools, electrical and plumbing. Proper selection, use, repair, and safety of the tools and equipment will be emphasized. (CSU)

AGRI 0215. Introduction to Agricultural Business and Economics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Provides an overview of the role agriculture business and economics play in United States and world economies and how these aspects impact the agricultural producer in day to day management, the consumer and the food system. Production and supply, marketing and demand, resource allocation and commodity pricing will be discussed as well as social and economic challenges of agriculture in urban and industrialized economies emphasizing California. (CSU, UC)

AGRI 0221. Introduction to Soil Science
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Soils as natural bodies formed by interactive environmental processes, classification and characteristics. Soil response to use and management including erosion, moisture retention, structure, cultivation, organic matter and microbiology. Laboratory topics include soil type, classification, soil reaction, soil fertility and physical properties of soil. (C-ID AG-PS 128 L) (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Assess the interdependence of relationships that exist between plants, animals, the environment and humans.

- Evaluate the economic importance of agriculture to various societies/cultures.
- Assess the impacts of agricultural production practices on the environment and society.
- Relate the biology of plants and or animals to agricultural management practices.

Allied Health
Contact Information

Division
Allied Health

Dean
Nancy James

Division Office
V 211, Rocklin Campus

Department Office
RN1 100, Rocklin Campus

Department Phone
(916) 660-8300

Overview

Allied Health offers alternatives to nursing and medicine for students interested in healthcare professions. Careers include Dental Hygiene, Licensed Vocational Nursing, Medical Assisting, Physical Therapy Assistant, Respiratory Therapist, Radiology Technician, Sonography, and others. Allied Health at Sierra College is designed to help identify and train for these alternative healthcare careers and to prepare students for success working in hospitals, clinics, dental offices and long term care facilities.

Faculty

Hannah Schwartz
Professor, Allied Health
B.A., University of California, Los Angeles
M.A., Sierra Nevada College

Allied Health Advisory Committee

- Alpine Allergy and Asthma, Auburn, CA
- ARC Point Labs, Sacramento and Roseville, CA
- Dr. Allison McCormick, MD, Auburn, CA
- Dr. Mark Vaughn, MD, Auburn, CA
- ELICA Greater Sac. Region, Greater Sacramento Region
- Kaiser Permanente Roseville Medical Center, Roseville, CA
- Marshall Medical Center, Placerville, CA
- Sutter Health, Sacramento, CA (HQ)

Degrees/Certificates

Associate Degrees

- Allied Health-General Option (p. 50)
- Allied Health-Pre-Nursing Option (p. 50)

Certificates of Achievement

Allied Health - General Option
AS Degree

The Allied Health General Option is designed as a gateway into allied health professions and to prepare students for success in Allied Health degree and certificate programs at Sierra and other institutions. This may include training programs for professions such as Dental Hygiene, LVN, Medical Assistant, Occupational Therapy Assistant, Physical Therapy Assistant, Respiratory Care, Radiology Technician, Sonography and others. Some variation in degree/certificate requirements may exist for particular Allied Health programs, therefore, it is essential that students refer to the catalog of their intended transfer institution and contact a counselor to ensure that all required coursework is completed. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ALH 0020	Introduction to Allied Health	1
Select 17 units from the following: [1]		**17**
ANTH 0002	Cultural Anthropology	
BIOL 0001	General Biology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0006	Human Physiology	
BIOL 0055	General Human Anatomy and Physiology	
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
BUS 0250	Microsoft Applications for Business	
CHEM 0001A or CHEM 0003A & CHEM 0003B	General Chemistry I General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	
CHEM 0002A	Introduction to Chemistry I	
CHEM 0002B	Introduction to Chemistry II	
CSCI 0010	Introduction to Computing	
COMM 0001	Introduction to Public Speaking	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
ENGL 0000N	Introduction to College Writing	
ENGL 0001A	Academic Reading and Writing	
HDEV 0001	Human Development Through the Lifespan	
HED 0001	Standard First Aid/Community CPR	
HSCI 0003	Medical Terminology	
MATH 0013	Introduction to Statistics	
MATH 0027	Trigonometry	
NUTF 0005	Food Preparation for Nutrition and Life Fitness	
NUTF 0010	Principles of Nutrition	
PHYS 0010	Basic Concepts in Physics	
PHYS 0105	General Physics I	
PHYS 0105L	General Physics I Laboratory	
PSYC 0100	Introduction to Psychology	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0001	Introduction to Sociology	
SOC 0015	Introduction to Statistics in Sociology	
Total Units		**18**

[1] At least one course must be from Biology, Chemistry, or Physics.

Allied Health - Pre-Nursing Option
AS Degree

Successful completion of the Associate in Science, Allied Health # Pre# Nursing Option, prepares the student with the knowledge, skills and qualities necessary to apply to most nursing programs. The program includes the prerequisites necessary for most registered nursing programs at community colleges and may be transferable to nursing majors at various universities. Some variation in degree requirements may exist for a particular program; therefore, it is essential that students refer to the catalog of their intended institution and contact a counselor to ensure that all required coursework is completed. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ALH 0020	Introduction to Allied Health	1
ANTH 0002 or SOC 0001	Cultural Anthropology Introduction to Sociology	3
BIOL 0004	Microbiology	5
BIOL 0005	Human Anatomy	5
BIOL 0006	Human Physiology	5
CHEM 0002A or CHEM 0001A	Introduction to Chemistry I [1] General Chemistry I	5-6

Code	Title	Units
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
COMM 0001	Introduction to Public Speaking	3
ENGL 0001A	Academic Reading and Writing	4
HDEV 0001	Human Development Through the Lifespan	3
or PSYC 0104	Developmental Psychology	
NUTF 0010	Principles of Nutrition	3
PSYC 0100	Introduction to Psychology	3
Demonstrate mathematics proficiency by one of the following:		**0-6**
MATH 0012	College Algebra	
MATH 0013	Introduction to Statistics	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0024	Modern Business Mathematics	
MATH 0029	Pre-Calculus Mathematics	
MATH 0030	Analytical Geometry and Calculus I	
MATH 0031	Analytical Geometry and Calculus II	
MATH 0042	Business Calculus	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0015	Introduction to Statistics in Sociology	
Completion of one year (or block schedule) of Algebra I or higher level mathematics in high school with grades of "C" or better		
Total Units		**40-47**

[1]CHEM 0002A is preferred for most Nursing programs. Speak with a counselor to discuss Chemistry options.

Allied Health - General Option
Certificate of Achievement

The Allied Health General Option is designed as a gateway into allied health professions and to prepare students for success in Allied Health certificate program at Sierra and other institutions. This may include training programs for professions such as Dental Hygiene, LVN, Medical Assistant, Occupational Therapy Assistant, Physical Therapy Assistant, Respiratory Care, Radiology Technician, Sonography and others. Some variation in certificate requirements may exist for particular Allied Health programs, therefore, it is essential that students refer to the catalog of their intended transfer institution and contact a counselor to ensure that all required coursework is completed. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
ALH 0020	Introduction to Allied Health	1
Select 17 units from the following: [1]		**17**
ANTH 0002	Cultural Anthropology	
BIOL 0001	General Biology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0006	Human Physiology	
BIOL 0055	General Human Anatomy and Physiology	
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
BUS 0250	Microsoft Applications for Business	
CHEM 0001A	General Chemistry I	
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	
CHEM 0002A	Introduction to Chemistry I	
CHEM 0002B	Introduction to Chemistry II	
CSCI 0010	Introduction to Computing	
COMM 0001	Introduction to Public Speaking	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
ENGL 0000N	Introduction to College Writing	
ENGL 0001A	Academic Reading and Writing	
HDEV 0001	Human Development Through the Lifespan	
HED 0001	Standard First Aid/Community CPR	
HSCI 0003	Medical Terminology	
MATH 0013	Introduction to Statistics	
MATH 0027	Trigonometry	
NUTF 0005	Food Preparation for Nutrition and Life Fitness	
NUTF 0010	Principles of Nutrition	
PHYS 0010	Basic Concepts in Physics	
PHYS 0105	General Physics I	
PHYS 0105L	General Physics I Laboratory	
PSYC 0100	Introduction to Psychology	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0001	Introduction to Sociology	
SOC 0015	Introduction to Statistics in Sociology	
Total Units		**18**

[1]**At least one course must be from Biology, Chemistry, or Physics.**

Medical Assisting
Certificate of Achievement

Successful completion of the Medical Assisting Program certificate prepares the student with the knowledge, skills and qualities necessary for the medical assisting profession. The medical assistant acquires a broad scope of skills which makes him/her a valuable allied health professional within the ambulatory care setting. During this program, students will learn and demonstrate vital signs, EKGs, venipunctures, injections, assist with minor office surgeries and patient education, as well as medical office administrative tasks. Students will also learn basic anatomy, physiology and pharmacology. This comprehensive education allows graduates to find employment in clinics, urgent# care facilities, primary care and specialty physician offices. Medical assistants are also employed in medical laboratories, surgical centers, and electrocardiography departments in hospitals, government agencies and educational institutions. Core coursework will be fulfilled in two semesters, followed by a 160#hour externship. A certificate of achievement will be earned after completing all courses with a grade of "C" or better and successfully passing the externship (ALH 0009). The certificate is designed

to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
ALH 0001	Electronic Health Record/Billing	2.5
ALH 0002	Medical Coding	3.0
ALH 0003	Introduction to Pharmacology for Medical Assisting	2.5
ALH 0004	Physical Exam Procedures	3
ALH 0005	Medical Office Procedures	4
ALH 0006	Medical Office Laboratory Procedures	3
ALH 0007	Medical Asepsis and Surgical Procedures	3.5
ALH 0008	Medication Administration and Injection Procedures	3
ALH 0009	Medical Assisting Clinical Practicum Experience	3
Total Units		**27.5**

Surgical Technologist
Certificate of Achievement

The Surgical Technology program prepares students for entry-level employment as surgical technologists in hospital surgery centers and specialty clinics. The program combines didactic instruction, laboratory simulation, and clinical experiences, providing students with the knowledge and skills required to enter the field of surgical technology in accordance with the American Medical Association and the Association of Surgical Technologist's guidelines. A Surgical Technologist (ST) is a member of the surgical team who works with surgeons, anesthesiologists, registered nurses, and other surgical personnel in delivering patient care and assuming appropriate responsibilities before, during and after surgery, including passing instruments to the surgeon and assisting during surgery.

Required Courses

Code	Title	Units
ALH 0022	Basic Sciences for Surgical Technology	6.5
ALH 0023	Patient Care Concepts for Surgical Technology	5.5
ALH 0024	Skills Lab for Surgical Technology	5.5
ALH 0025	Surgical Specialties for Surgical Technology	6
ALH 0026	Surgical Technology Clinical Practicum	10
ALH 0027	Law and Ethics for Allied Health Professionals	2
ALH 0029	Certified Surgical Technologist (CST) Exam Prep	1
Total Units		**36.5**

Phlebotomy
Skills Certificate

Upon completion of both Introduction to Phlebotomy (ALH 10) and the Phlebotomy Clinical Practicum Experience (ALH 11), the well trained phlebotomy student will be prepared to take the next steps in a career as a phlebotomist. These two courses meet the California Department of Public Health (CDPH) guidelines and requirements to earn the State of California Phlebotomy Technician 1 (CPT1) Certificate. Within the curriculum and practicum experience, there is emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). Upon successful completion of ALH 10 and ALH 11, students will be eligible to sit for the phlebotomy exam to become a Certified Phlebotomy Technician I (CPT 1) with the state of California.

Students will acquire Phlebotomy experience in the work setting under the supervision of a certified phlebotomist. The completed clinical practicum is conducted as a non-paid clinical laboratory experience. Within this clinical practicum, student have performed the required minimum 50 venipuncture procedures on patients that represent a variety of age groups and medical conditions. The clinical sites will reinforce and further the training for the necessary phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1).

Required Courses

Code	Title	Units
ALH 0010	Introduction to Phlebotomy	3
ALH 0011	Phlebotomy Clinical Practicum Experience	.5
Total Units		**3.5**

Registered Behavioral Technician (RBT)
Skills Certificate

Successful completion of ALH 0030: Registered Behavioral Technician (RBT) and ALH 0031: Registered Behavioral Technician Clinical Practicum Experience results in students becoming eligible to take the RBT exam with the Behavioral Analyst Certification Board (BACB). This will prepare students with the understanding, skills and qualities necessary for the behavioral health profession. The behaviorist will acquire knowledge about ethical standards, conducting assessments, skill acquisition, documentation and reporting, data collection, and professional conduct and scope of practice. Students will also learn a basic understanding of neurodivergent individuals and their challenges/struggles. These comprehensive courses allow students to find employment immediately after passing their RBT exam in organizations such as behavioral therapy clinics, educational environments, group homes, and some health care facilities.

Required Courses

Code	Title	Units
ALH 0030	Registered Behavioral Technician	5
ALH 0031	Registered Behavioral Technician Clinical Practicum	.5
Total Units		**5.5**

Courses

Understanding course descriptions (p. 311)

ALH 0001. Electronic Health Record/Billing
Units: 2.5
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in HSCI 3
Advisory: Completion of BIOL 55 or BIO 5 and BIO 6 with grade(s) of "C" or better
Hours: 63 (36 lecture, 27 laboratory)
How to document the total patient encounter in the Electronic Health Record using a current vendor product along with Medisoft Clinical Practice Management which incorporates the electronic billing process. (letter grade only) (not transferable)

ALH 0002. Medical Coding
Units: 3
Hours: 77 (44 lecture, 33 laboratory)
Students will acquire basic knowledge and the correct medical language for the functions of procedural and diagnostic coding in the ambulatory medical setting. In addition, students will learn to interpret and locate codes for procedural coding essentials using the CPT (Current Procedural Terminology) and diagnostic coding essentials using the ICD-10-CM (International Classification of Disease, clinical modification 10) manuals. Students will acquire the corresponding medical terminology required for abstracting and interpreting medical charts in order to code with the appropriate manuals. (letter grade only) (not transferable)

ALH 0003. Introduction to Pharmacology for Medical Assisting
Units: 2.5
Hours: 63 (36 lecture, 27 laboratory)
Introduction to the principles of pharmacology and medication forms, routes of administration, and common medication for each body system as used in the ambulatory setting. (letter grade only) (not transferable)

ALH 0004. Physical Exam Procedures
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Prepares students to perform clinical tasks within the scope of practice of a medical assistant. Skill competencies include preparation of exam rooms, assisting in physical examinations, acquisition of patient history and vital signs, introduction to oral medication administration, nutritional education planning and patient coaching, orthopedic bracing/casting, handling office emergencies, and performing nebulizers and electrocardiograms. (letter grade only) (not transferable)

ALH 0005. Medical Office Procedures
Units: 4
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Designed for the Clinical Medical Assistant to learn legal/ethical and accepted procedures for any ambulatory setting. Students will acquire the knowledge on how to properly answer interview questions, identify professional transferable skills needed in the industry, and how to develop a resume, cover letter, and engage in a mock interview. (letter grade only) (not transferable)

ALH 0006. Medical Office Laboratory Procedures
Units: 3
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Students will acquire skills to competently implement and evaluate standard laboratory tests as performed in medical offices or general lab settings. Emphasis on specimen collection, handling and storing procedures, analysis and interpretation of normal and abnormal lab values. Acquire phlebotomy skills that prepare students to practice within their scope of work as a medical assistant. (letter grade only) (not transferable)

ALH 0007. Medical Asepsis and Surgical Procedures
Units: 3.5
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 99 (45 lecture, 54 laboratory)
Students will acquire knowledge to apply theory to practice while assisting with minor office surgeries and wound care. Sterile and aseptic techniques, sterile field and instrument sanitization procedures and protocols prepare students with the necessary skills to practice within the scope of practice of a medical assistant. Students will perform training for recognizing risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standards specific to the healthcare professional and in accordance of the scope of practice of a medical assistant. Provides the American Heart Association (AHA) Basic Life Support/CPR certification for Healthcare Providers. (letter grade only) (not transferable)

ALH 0008. Medication Administration and Injection Procedures
Units: 3
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Students will acquire and apply knowledge of various routes of medication administration and the related injection safety, techniques, and site selection. Medication dosage calculations, medication side effects and emergencies pertaining to medication administration will prepare students to practice within the scope of practice of a medical assistant. (letter grade only) (not transferable)

ALH 0009. Medical Assisting Clinical Practicum Experience
Units: 3
Prerequisite: Completion of ALH 5, 6, 7, and 8 with grades of "C" or better
Hours: 162 laboratory
Students will acquire clinical Medical Assisting experience in the work setting under the supervision of a licensed physician in a Board-Certified medical office setting or outpatient facility. (letter grade only) (not transferable)

ALH 0010. Introduction to Phlebotomy
Units: 3
Hours: 91 (43 lecture, 48 laboratory)
Introduction to the principles of Phlebotomy. Emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). Upon successful completion of ALH 10 and ALH 11, students will be eligible to sit for the phlebotomy exam to become a Certified Phlebotomy Technician I (CPT 1) with the state of California. (letter grade only) (CSU)

ALH 0011. Phlebotomy Clinical Practicum Experience
Units: 0.5
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ALH 10
Hours: 40 laboratory
Students will acquire Phlebotomy experience in the work setting under the supervision of a certified phlebotomist. The clinical practicum is conducted as a non-paid clinical laboratory experience. Students will perform at least 50 venipuncture procedures on patients that represent a variety of age groups and medical conditions. Emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). (letter grade only) (CSU)

ALH 0020. Introduction to Allied Health
Unit: 1
Hours: 18 lecture
Introduction to career choices in the Allied Health field. Topics include: education and career mapping, job outlooks, occupational and professional requirements, pay ranges, and employer expectations. Students will get hands-on experience related to various Allied Health occupations and gain insight into job roles and responsibilities through guest speakers. Course includes an overview of health care delivery systems, associated career opportunities, infection control, and laws governing patient confidentiality. Students will have the opportunity to participate in organized field trips. (letter grade only) (CSU)

ALH 0022. Basic Sciences for Surgical Technology
Units: 6.5
Prerequisite: Completion of HSCI 3 and BIOL 55 or BIOL 5 and BIOL 6 with grade(s) of "C" or better
Hours: 135 (108 lecture, 27 laboratory)
Review human anatomy and physiology for surgical procedures and common disease states requiring surgical intervention. Also covers medications used during surgery. Concepts of microbiology and basic physics are discussed as they are applied to operating room procedures and practices. Introduces operating room protocols and procedures, aseptic techniques, disinfection, sterilization, instruments, and equipment. (letter grade only) (not transferable)

ALH 0023. Patient Care Concepts for Surgical Technology
Units: 5.5
Hours: 99 lecture
Provides the student with a theoretical and practical understanding of the technology and practices used in caring for a patient undergoing a surgical procedure. Additional material covers the structure and function of a healthcare facility specifically the Operating Room. (letter grade only) (not transferable)

ALH 0024. Skills Lab for Surgical Technology
Units: 5.5
Prerequisite: Completion of ALH 22 and ALH 23 with grades of "C" or better
Hours: 297 laboratory
Students practice the clinical skills required to demonstrate competency in the operating room. Skills include, but are not limited to aseptic practices such as scrubbing, gowning and gloving, setting up the instrument table, positioning the patient, and passing instruments supplies and medications to the surgeon. Prepares the student for clinical internship. (letter grade only) (not transferable)

ALH 0025. Surgical Specialties for Surgical Technology
Units: 6
Hours: 108 lecture
Covers the most common procedures and equipment utilized by the surgical technologist during specialty surgery. These specialties include neurosurgery, vascular surgery, orthopedic surgery and others. Prepares the student for the national certification exam. (letter grade only) (not transferable)

ALH 0026. Surgical Technology Clinical Practicum
Units: 10
Prerequisite: Completion of ALH 24 and ALH 25 with grades of "C" or better
Hours: 540 laboratory
Provides the student with hands-on experience in the surgical suite caring for patients under the supervision of a surgical technologist or a registered nurse. They will also gain experience in patient and staff interaction and communication. It prepares the student for the national certification examination. (letter grade only) (not transferable)

ALH 0027. Law and Ethics for Allied Health Professionals
Units: 2
Hours: 36 lecture
Legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bio-ethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services for the allied health professional. (CSU)

ALH 0029. Certified Surgical Technologist (CST) Exam Prep
Unit: 1
Prerequisite: Completion of ALH 22, ALH 23, ALH 24, ALH 25, ALH 26 and ALH 27 with grades of "C" or better
Hours: 24 lecture
Preparation and review for the Certified Surgical Technologist (CST) examination offered by the National Board of Surgical Technology and Surgical Assisting. (letter grade only) (not transferable)

ALH 0030. Registered Behavioral Technician
Units: 5
Hours: 162 (54 lecture, 108 laboratory)
This course introduces the core principles and practices essential for a Registered Behavior Technician (RBT). Key topics include measurement and documentation/reporting, assessments, skill acquisition, behavior reduction, professional conduct, ethical responsibilities, and decision-making. The course also emphasizes the development of transferable skills crucial for professional success. Students will receive guidance on crafting a resume, cover letter, and reference page to use in their mock interviews and to enhance their career readiness. Upon successful completion of this course, students must meet additional requirements, including certification in First Aid and CPR (in-person only), passing a criminal background check and abuse registry check, providing a vaccination record, and completing high school (high school seniors in their final semester may apply). This course is part of a two-course certification sequence. Following this course, students will enroll in ALH 31. (letter grade only) (not transferable)

ALH 0031. Registered Behavioral Technician Clinical Practicum
Units: 0.5
Prerequisite: Completion of ALH 30 with grade of "C" or better
Hours: 40 laboratory
This course provides students with hands-on experience as Behavioral Technicians in a professional setting under the supervision of a Board-Certified Behavior Analyst (BCBA) or Program Specialist. Students will complete a minimum of 40 hours of practical work, focusing on measurement and documentation of behaviors, reporting, assessments, skill acquisition, behavior reduction, and adherence to professional conduct, ethical responsibilities, and decision-making protocols. Upon successful completion of the course and the associated competency forms, students will be eligible to sit for the Registered Behavior Technician (RBT) examination administered by the Behavior Analyst Certification Board (BACB) and qualify as a Registered Behavior Technician. (letter grade only) (not transferable)

Program Student Learning Outcomes

- Demonstrate an understanding of the functions of the organ systems of the human body.
- Use the Scientific Method to investigate biological questions and critically evaluate and effectively communicate scientific data.
- Understand and apply foundational knowledge for a future allied health career or program of study.

Anthropology
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Anthropology is the academic discipline concerned with the study of the biological and cultural development of mankind. The approach is comparative and holistic, focusing attention on the physical behavioral characteristics of humans, the range of their variations worldwide and the constants which cut across all human activity. Anthropological studies include people throughout the world since the beginning of human life.

TRANSFER MAJOR REQUIREMENTS in Anthropology are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in Anthropology are qualified are archaeologist, anthropology instructor, environmental consultant and state and national park anthropologist.

Faculty

Matt S. Archer
Professor, Anthropology/Women and Gender Studies
B.A., University of California, Los Angeles
M.A., University of Texas at Austin

Ph.D., University of Texas at Austin

Sohnya Castorena
Professor, Anthropology/Women and Gender Studies
B.A., University of San Diego
Ph.D, Temple University

Jennifer L. Molina-Stidger
Professor, Anthropology/Women and Gender Studies
B.A., University of California, Davis
M.A., University of New Mexico

Degrees/Certificates
Anthropology for Transfer
AA-T Degree

Anthropology is the study of humans, past and present. To understand the full sweep and complexity of cultures across all of human history, anthropology draws and builds upon knowledge from the social and biological sciences as well as the humanities and physical sciences. A central concern of anthropologists is the application of knowledge to the solution of human problems. Historically, anthropologists in the United States have been trained in one of four areas: sociocultural anthropology, biological/physical anthropology, archaeology and linguistics. Anthropologists often integrate the perspectives of several of these areas into their research, teaching and professional lives.

The Associate in Arts in Anthropology for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Anthropology or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Anthropology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ANTH 0001	Biological Anthropology	3
ANTH 0002	Cultural Anthropology	3

ANTH 0005	Introduction to Archaeology	3
Select 3-4 units from the following:		**3-4**
ANTH 0001L	Biological Anthropology Laboratory	
ANTH 0006	Introduction to Linguistic Anthropology	
MATH 0013	Introduction to Statistics	
or SOC 0015	Introduction to Statistics in Sociology	
Select 3-4 units from the following or any unused courses from the preceding area:		**3-4**
ESCI 0001 & 0001L	Physical Geology and Physical Geology Laboratory	
ESCI 0010 & 0010L	Introduction to Earth Science and Introduction to Earth Science Laboratory	
PHIL 0065	Introduction to the Philosophy of Science	
Select 3-4 units from the following or any unused courses from the preceding areas:		**3-4**
ANTH 0004	Native Peoples of North America	
ANTH 0007	Native Peoples of California	
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	
ANTH 0010	Introduction to Forensic Anthropology	
ANTH 0014	Global Problems	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
Total Units		**18-21**

Courses

Understanding course descriptions (p. 311)

ANTH 0001. Biological Anthropology
Units: 3
Hours: 54 lecture
Broad introduction to the science of biological anthropology. Topics include: the field of anthropology, the scientific method, evolutionary theory, genetics and inheritance, human variation, biology and behavior of living primates, and the fossil evidence of human evolution. (C-ID ANTH 110) (CSU, UC)

ANTH 0001L. Biological Anthropology Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ANTH 1
Hours: 54 laboratory
Introductory laboratory course designed to investigate the science of biological anthropology. Areas of study include the production and distribution of genetic variation, human osteology, human variation, comparative primate taxonomy, behavior and osteology, and fossil evidence for human evolution. Field trip required. Students are responsible for fees associated with required field trip. (C-ID ANTH 115L) (CSU, UC)

ANTH 0002. Cultural Anthropology
Units: 3
Hours: 54 lecture
Introduction to the study of human culture. Examines continuity and diversity in lifeways, knowledge, perspectives, practices and social institutions. Examples drawn from many different cultures and addresses multiple aspects of people's lives. Explores cultural change and intercultural interactions at local and global scales. Addresses the contemporary relevance of culture, cultural humility and cultural anthropology. (C-ID ANTH 120) (CSU, UC)

ANTH 0004. Native Peoples of North America
Units: 3
Hours: 54 lecture
Anthropological survey of the indigenous peoples and cultures of North America. Emphasizes ecological knowledges/practices, languages, material culture, social organizations, religion, mythologies, world view, and artistic representations and responses to change. Critical examination of the impact of tribal nations on each other as well as the interactions with other groups of people. Examines current conditions of Native American tribes and communities as well as contributions of Native Americans to the cultures of the Americas. Field trips may be required. (CSU, UC)

ANTH 0005. Introduction to Archaeology
Units: 3
Hours: 54 lecture
Survey of the history and theory of archaeology. Emphasis placed on techniques of archaeological data collection and analysis, cultural innovations and variations, reconstruction and interpretation of the past, and Cultural Resource Management work. Field trips may be required. (C-ID ANTH 150) (CSU, UC)

ANTH 0006. Introduction to Linguistic Anthropology
Units: 3
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore the many different ways people communicate. Examine how language is linked the way we see the world, ourselves and each other. Investigate how language works and how it changes over time. Study beliefs about language and their impacts. Examine how people use language to build and share meaning, to form, perform and change identities as well as to enact or resist power. (C-ID ANTH 130) (CSU, UC)

ANTH 0007. Native Peoples of California
Units: 3
Hours: 54 lecture
Anthropological survey of the indigenous peoples and cultures of California. Emphasizes ecological knowledges/practices, languages, material culture, social organizations, religion, mythologies, world view, artistic representations and responses to change. Critical examination of the impact of tribal nations on each other as well as the interactions with other groups of people. Examines current conditions of Native American tribes and communities in California as well as contributions of indigenous Californians to the cultures of the Americas. Field trips may be required. (CSU, UC)

ANTH 0009. Magic, Witchcraft, Ritual, Myth and Religion
Units: 3
Hours: 54 lecture
Exploration of supernatural beliefs and practices around the world and over time. Analysis of the forms and functions of myths, rituals, altered states of consciousness, spirit possession, religious movements, witchcraft, and curing. Investigation of the relationship between science, supernatural belief systems, and medicine. Examples dawn from many different cultures and addresses multiple aspects of people's religious and spiritual lives. (CSU, UC)

ANTH 0010. Introduction to Forensic Anthropology
Units: 3
Hours: 54 lecture
Overview of forensic anthropology, an applied field of physical anthropology. Emphasis on current techniques used in the analysis of human skeletal remains, medico-legal procedures, and the role of the anthropologist in the investigative process. Examines the basics of bone biology, methods of skeletal analysis, and recognition of bone trauma and pathological processes. (CSU, UC)

ANTH 0014. Global Problems
Units: 3
Hours: 54 lecture
An anthropological approach to the study of major global problems and current world situations. Examine the multidimensional impacts of global capitalism and assess participation within it. Course utilizes a critical approach and emphasizes knowledge from indigenous and other social movements which resist and advocate for alternatives. Highlights discussions about practical strategies for personal and collective positive global impacts. (CSU, UC)

ANTH 0027. Anthropology of Sex, Gender and Sexuality
Units: 3
Hours: 54 lecture
Introduction to the study of sex, gender and sexuality from multiple anthropological perspectives, including biological, cultural, linguistic and archaeological. Examine the diversity and complexities of human sexes, genders and sexualities in many different sociocultural, historical, and cross-species contexts. Investigate complex interactions of biological and cultural systems in the development and dynamics of sexes, genders and sexualities. Discuss relevant issues and current research pertaining to sex, gender and sexuality. (CSU, UC)

ANTH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Identify, gather, and evaluate anthropologically relevant data; explain and apply anthropological theories and concepts.
- Use anthropological data to generate representations of diverse human dynamics including linguistic, cultural, physical, and archaeological characteristics.
- Discuss anthropologically informed and relevant perspectives regarding the interaction between biology and culture.

- Critically investigate and analyze how one's personal life relates to linguistic, biological, archaeological, and behavioral aspects of the human condition.

Applied Art and Design
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Applied Art and Design is an academic discipline which focuses on the principles and practical applications of art, design, photography, computer graphics, imaging and animation. Study of the foundations of design, creative problem solving, portfolio development and internship experiences, all prepare students for transfer programs and career opportunities. Within the AA/AS degree or certificate options, students may concentrate in Graphic Design, Illustration, or Multimedia. Students who successfully complete the Applied Art and Design major can expect to find entry level employment in such areas as digital illustration, graphic design for print and internet, multimedia, animation, photographic retouching and pre-press operation.

Faculty

Angelina N. Coughlin
Professor, Applied Art and Design
B.F.A., Brooks Institute
M.F.A., Mount Saint Mary's University

Vincent Pacheco
Assistant Professor, Applied Art and Design
B.S., University of California, Davis
M.F.A., University of California, Davis

Natalie Rishe
Professor, Applied Art and Design
B.F.A., University of Nevada, Reno
M.F.A., University of California, Davis

Applied Art and Design Advisory Committee

- Nevada County Media, Nevada County, CA
- Transform Studios, Roseville, CA
- Kalena Fields, Stockton, CA
- Elyjah Wilbur, Video and Multimedia Technician for the City of Roseville, Roseville, CA
- Sierra Studio Films, Auburn, CA
- API Marketing, Auburn, CA
- Nevada City Film Festival, Nevada City, CA

Degrees/Certificates

Associate Degrees

- Applied Art and Design—Digital Media (p. 58)
- Applied Art and Design—Film and Video Production (p. 58)
- Applied Art and Design—Graphic Design (p. 59)
- Applied Art and Design—Illustration (p. 59)
- Applied Art and Design—Web and Interaction Design (p. 60)

Certificates of Achievement

- Applied Art and Design—Digital Media (p. 60)
- Applied Art and Design—Film and Video Production (p. 61)
- Applied Art and Design—Graphic Design (p. 61)
- Applied Art and Design—Illustration (p. 61)
- Applied Art and Design (p. 62)— (p. 60)Web and Interaction Design (p. 62)

Skills Certificates

- Animation and Motion Graphics (p. 62)
- Creative Entrepreneurship (p. 62)
- Graphic Design (p. 63)
- Illustration (p. 63)
- Video Production and Editing (p. 63)
- Visual Media (p. 63)
- Web Design (p. 64)

Applied Art and Design—Digital Media

(formerly Applied Art and Design-Multimedia)

AA or AS Degree

Successful completion of the curriculum in Digital Media qualifies students for entry level positions as interactive media designers, computer game designers, interface designers, animators and on-line web designers. This option also prepares students for transfer to a four-year college program in Digital Media. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)
-

Required Courses

Code	Title	Units
Select 9 units from the following:		**9**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
or AAD 0088	History of Filmmaking	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
Select 15 units from the following:		**15**
AAD 0028	Independent Study	
AAD 0052	Publication Design I	
AAD 0062	Digital Illustration	
AAD 0071	Introduction to Digital Painting	
AAD 0073	Digital Art Studio: Concepts and Practices	
AAD 0075	Introduction to Photoshop	
AAD 0079	Introduction to Digital Filmmaking and Video Production (also COMM 0031A)	
AAD 0082	Intermediate Digital Filmmaking	
AAD 0083	Introduction to Three-Dimensional Modeling	
AAD 0085	Introduction to Web Design	
AAD 0086	Intermediate Web Design	
AAD 0087	Content Management Systems for Designers	
AAD 0089	Documentary Filmmaking	
AAD 0090	Interaction Design for Web Products	
AAD 0093	Introduction to Motion Graphics	
AAD 0094	Digital Animation	
AAD 0096	Portfolio Design	
ART 0006C	Color Theory	
Total Units		**24**

Applied Art and Design—Film and Video Production
AS Degree

Successful completion of the curriculum in Film and Video Production program provides a comprehensive understanding of the skills necessary for successful employment in the Film and Video Production industry. This program is designed to meet the needs of students interested in seeking entry-level positions in filmmaking and video production. Additionally, students could choose to start their own business in commercial video production after the completion of the program. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
AAD 0079	Introduction to Digital Filmmaking and Video Production	3
AAD 0082	Intermediate Digital Filmmaking	3
AAD 0088	History of Filmmaking	3
AAD 0089	Documentary Filmmaking	3
AAD 0093	Introduction to Motion Graphics	3
PHOT 0060A	Beginning Photography	3
THEA 0010A	Acting I	3
Select 3 units from the following:		**3**
AAD 0012	Visual Communication (Also COMM 0012)	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
AAD 0075	Introduction to Photoshop	
Total Units		**24**

Applied Art and Design—Graphic Design
AA or AS Degree

The Graphic Design degree offers a comprehensive set of offerings in graphic design, branding and logo design, publication design, and packaging design. This option prepares students for transfer to a four-year college program in Graphic Design, Design Thinking, UI/UX Design, and other related fields. The program stresses the design thinking process as well as the professional and production methods currently used in the industry.

In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
AAD 0052	Publication Design I	3
AAD 0053	Publication Design II	3
AAD 0054	Typography	3
AAD 0061	Graphic Design III: Branding and Production	3
AAD 0062	Digital Illustration	3
AAD 0075	Introduction to Photoshop (also PHOT 0075)	3
Select 9 units from the following:		**9**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	

Code	Title	Units
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD 0085	Introduction to Web Design	
AAD 0096	Portfolio Design	
Total Units		**27**

Applied Art and Design—Illustration
AA or AS Degree

The Illustration degree offers a comprehensive set of courses in Illustration, animation and gaming, digital imaging, art foundations, digital art, and 3d modeling. This option prepares students for transfer to a four year university in illustration, graphic design, animation, and other related fields. The program stresses the design thinking process as well as the professional production currently used in the industry.

In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
Select 9 units from the following:		**9**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
Select 15 units from the following:		**15**
AAD 0055	Illustration (also ART 0055)	
AAD 0062	Digital Illustration	
AAD 0071	Introduction to Digital Painting (also ART 0071)	
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)	
AAD 0075	Introduction to Photoshop (also PHOT 0075)	
AAD 0083	Introduction to Three-Dimensional Modeling	
AAD 0094	Digital Animation	
AAD 0096	Portfolio Design	
ART 0004B	Drawing II	
or ART 0005A	Figure Drawing I	

ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
or ART 0008A	Watercolor Painting I	
Total Units		**24**

Applied Art and Design—Web and Interaction Design
AS Degree

The curriculum in the Web and Interaction Design program provides a comprehensive understanding of the skills necessary for successful transfer to a four-year program, and/or employment in the front-end Web design and development industry, including interface and experience design. The program stresses the design thinking process as well as the professional and production methods used currently in the industry.

This program is designed to meet the needs of students interested in front-end Web design and development fields, including user interaction and experience design (UI/UX), web accessibility and usability design, front-end development using HTML, CSS and JavaScript, and Content Management System design.

In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
AAD 0085	Introduction to Web Design	3
AAD 0086	Intermediate Web Design	3
AAD 0087	Content Management Systems for Designers	3
AAD 0090	Interaction Design for Web Products	3
Select 9 units from the following:		**9**
AAD 0052	Publication Design I	
AAD 0062	Digital Illustration	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD 0075	Introduction to Photoshop (Also PHOT 0075)	
Select 6 units from the following:		**6**
AAD 0013	History of Graphic Design	
or AAD 0012	Visual Communication	
AAD 0012	Visual Communication (Also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	
AAD 0054	Typography	

AAD 0060	Graphic Design I: Principles and Process	
AAD 0020	Portfolio Design (New number proposed: AAD 96)	
BUS 0280	Introduction to Marketing	
IT 0065	Data Analytics/Visualization Using Tableau	
Total Units		**27**

Applied Art and Design—Digital Media
(formerly Applied Art and Design-Multimedia)

Certificate of Achievement
The certificate in Digital Media qualifies students for entry level positions as interactive media designers, computer game designers, interface designers and on-line web designers. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 9 units from the following:		**9**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
or AAD 0088	History of Filmmaking	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
Select 24 units from the following:		**24**
AAD 0028	Independent Study	
AAD 0052	Publication Design I	
AAD 0062	Digital Illustration	
AAD 0066	Business Practices for Creative Professionals	
AAD 0071	Introduction to Digital Painting	
AAD 0073	Digital Art Studio: Concepts and Practices	
AAD 0075	Introduction to Photoshop	
AAD 0076	Advanced Projects in Photoshop	
AAD 0079	Introduction to Digital Filmmaking and Video Production (also COMM 0031A)	
AAD 0082	Intermediate Digital Filmmaking	
AAD 0083	Introduction to Three-Dimensional Modeling	
AAD 0085	Introduction to Web Design	
AAD 0086	Intermediate Web Design	
AAD 0087	Content Management Systems for Designers	
AAD 0089	Documentary Filmmaking (also PHOT 0089)	
AAD 0090	Interaction Design for Web Products	

AAD 0093	Introduction to Motion Graphics	
AAD 0094	Digital Animation	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
AAD 0096	Portfolio Design	
ART 0006C	Color Theory	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0280	Introduction to Marketing	
Total Units		**33**

Applied Art and Design—Film and Video Production
Certificate of Achievement

Successful completion of the curriculum in Film and Video Production program provides a comprehensive understanding of the skills necessary for successful employment in the Film and Video Production industry. This program is designed to meet the needs of students interested in seeking entry-level positions in filmmaking and video production. Additionally, students could choose to start their own business in commercial video production after the completion of the program. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0012	Visual Communication	3
AAD 0044	Sketching for Design	3
or ART 0004A	Drawing I	
AAD 0079	Introduction to Digital Filmmaking and Video Production	3
AAD 0082	Intermediate Digital Filmmaking	3
AAD 0088	History of Filmmaking	3
AAD 0089	Documentary Filmmaking	3
AAD 0093	Introduction to Motion Graphics	3
PHOT 0060A	Beginning Photography	3
THEA 0010A	Acting I	3
Select 6 units from the following:		**6**
AAD 0028	Independent Study	
AAD 0095	Internship in Applied Art and Design	
AAD 0097	Business Practices for Creative Professionals	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0280	Introduction to Marketing	
PHOT 0088	Business Practices for Photographers	
Total Units		**33**

Applied Art and Design—Graphic Design
Certificate of Achievement

The certificate in Graphic Design qualifies students for entry-level positions in graphic design, branding and logo design, publication design, and packaging design. The program stresses the design thinking process as well as the professional and production methods currently used in the industry.

The certificate is focused on providing a comprehensive skillset for emerging creative professionals; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0052	Publication Design I	3
AAD 0053	Publication Design II	3
AAD 0054	Typography	3
AAD 0061	Graphic Design III: Branding and Production	3
AAD 0062	Digital Illustration	3
AAD 0075	Introduction to Photoshop (also PHOT 0075)	3
Select 15 units from the following:		**15**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0028	Independent Study	
AAD 0044	Sketching for Design	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD 0085	Introduction to Web Design	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
AAD 0096	Portfolio Design	
AAD 0097	Business Practices for Creative Professionals	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0280	Introduction to Marketing	
PHOT 0060A	Beginning Photography	
or PHOT 0080	Color Photography	
Total Units		**33**

Applied Art and Design—Illustration
Certificate of Achievement

The certificate in Illustration offers a comprehensive set of courses in illustration, animation and gaming, digital imaging, art foundations, digital art, and 3d modeling. The program stresses the design thinking process as well as the professional production currently used in the industry. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 9 units from the following:		**9**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
AAD 0060	Graphic Design I: Principles and Process	

AAD 0070	Graphic Design II: Introduction to Digital Design	
Select 24 units from the following:		**24**
AAD 0028	Independent Study	
AAD 0055	Illustration (also ART 0055)	
AAD 0062	Digital Illustration	
AAD 0071	Introduction to Digital Painting (also ART 0071)	
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)	
AAD 0075	Introduction to Photoshop (also PHOT 0075)	
AAD 0083	Introduction to Three-Dimensional Modeling	
AAD 0094	Digital Animation	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
AAD 0096	Portfolio Design	
AAD 0097	Business Practices for Creative Professionals	
ART 0004B	Drawing II	
or ART 0005A	Figure Drawing I	
ART 0007A	Oil Painting I	
or ART 0008A	Watercolor Painting I	
BUS 0242	Entrepreneurship - Small Business Management	
PHOT 0060A	Beginning Photography	
or PHOT 0080	Color Photography	
Total Units		**33**

Applied Art and Design—Web and Interaction Design
Certificate of Achievement
Successful completion of the curriculum in the Web and Interaction Design program provides the skills necessary for meaningful employment in the front-end Web design and development industry, including careers in interface, experience, and usability design.

The program offers courses in front-end design and development using HTML, CSS, JavaScript, interaction design, and Content Management System design. Additionally, students gain an understanding of related design software applications, tools, and workflows. The program stresses the design thinking process as well as the professional and production methods used currently in the industry.

Students will be prepared to enter the industry or start their own business as a Web and/or Interaction Designer after the completion of the program.

The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0085	Introduction to Web Design	3
AAD 0086	Intermediate Web Design	3
AAD 0087	Content Management Systems for Designers	3

AAD 0090	Interaction Design for Web Products	3
Select 9 units from the following:		**9**
AAD 0052	Publication Design I	
AAD 0062	Digital Illustration	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD 0075	Introduction to Photoshop (also PHOT 0075)	
Select 12 units from the following:		**12**
AAD 0012	Visual Communication (also COMM 0012)	
or AAD 0013	History of Graphic Design	
AAD 0020	Portfolio Design (Name change proposal to AAD 0096)	
AAD 0028	Independent Study	
AAD 0044	Sketching for Design	
AAD 0054	Typography	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0066	Business Practices for Creative Professionals (New number proposed: AAD 97)	
AAD 0095	Internship in Applied Art and Design	
BUS 0280	Introduction to Marketing	
IT 0065	Data Analytics/Visualization Using Tableau	
Total Units		**33**

Animation and Motion Graphics
(Formerly Digital Animation)

Skills Certificate
Designed for students interested in becoming proficient in digital animation and motion graphics for filmmaking. Valuable for those preparing for careers where the fundamentals of animation, motion graphics, and other forms of time-based media are expected.

This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0044	Sketching for Design	3
AAD 0079	Introduction to Digital Filmmaking and Video Production	3
AAD 0083	Introduction to Three-Dimensional Modeling	3
AAD 0093	Introduction to Motion Graphics	3
AAD 0094	Digital Animation	3
Total Units		**15**

Creative Entrepreneurship
Skills Certificate
Designed for students interested in creative entrepreneurship. This focused award prepares students to jumpstart their business venture by covering topics such as business practices for creative professionals,

portfolio design and presentation, marketing practices, entrepreneurship management, and data analytics.

This is a specialty skills certificate designed to provide career-focused skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 15 units from the following:		**15**
AAD 0028	Independent Study	
AAD 0095	Internship in Applied Art and Design	
AAD 0096	Portfolio Design	
AAD 0097	Business Practices for Creative Professionals	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0280	Introduction to Marketing	
IT 0065	Data Analytics/Visualization Using Tableau	
Total Units		**15**

Graphic Design
Skills Certificate

The skills certificate in Graphic Design includes courses in graphic design, publication design, typography, digital imaging, and design foundations. The program stresses the design thinking process as well as the professional production methods currently used in the industry.

Required Courses

Code	Title	Units
Select 15 units from the following:		**15**
AAD 0013	History of Graphic Design	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0052	Publication Design I	
AAD 0054	Typography	
AAD 0062	Digital Illustration	
AAD 0075	Introduction to Photoshop (also PHOT 0075)	
Total Units		**15**

Illustration
(Formerly Digital Illustration)

Skills Certificate

Designed for students interested in becoming proficient in illustration. Valuable for those preparing for careers in illustration, 3d, animation and gaming, or for those upgrading their skills. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 15 units from the following:		**15**
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	

Code	Title	Units
AAD 0055	Illustration (also ART 0055)	
AAD 0062	Digital Illustration	
AAD 0071	Introduction to Digital Painting (also ART 0071)	
AAD 0073	Digital Art Studio: Concepts and Practices	
AAD 0083	Introduction to Three-Dimensional Modeling	
Total Units		**15**

Video Production and Editing
Skills Certificate

Designed for students interested in becoming proficient with video production and editing techniques, software and computer manipulation related to time-based media. Valuable for those preparing for a career in the video industry, or for those upgrading their skills. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0079	Introduction to Digital Filmmaking and Video Production (also COMM 0031A)	3
AAD 0082	Intermediate Digital Filmmaking	3
AAD 0089	Documentary Filmmaking	3
AAD 0093	Introduction to Motion Graphics	3
Total Units		**12**

Visual Media
(Formerly Visual Arts and Media)

Skills Certificate

Designed for students interested in understanding visual media and becoming proficient in techniques for conceptualizing and creating impactful visual communication. Valuable for those preparing for a career in the visual arts and media, providing knowledge and technical skills applicable to digital art and design, visual communication studies, or for those upgrading their skills.

This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0012	Visual Communication (also COMM 0012)	3
or AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	3
or ART 0004A	Drawing I	
AAD 0060	Graphic Design I: Principles and Process	3
AAD 0070	Graphic Design II: Introduction to Digital Design	3
PHOT 0060A	Beginning Photography	3
Total Units		**15**

Web Design
Skills Certificate

Intended for students interested in becoming proficient with software, tools, and processes related to front-end web design and development. Valuable for those preparing for a career as a web designer, or for those upgrading their skills. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0070	Graphic Design II: Introduction to Digital Design	3
or AAD 0052	Publication Design I	
or AAD 0062	Digital Illustration	
or AAD 0075	Introduction to Photoshop	
AAD 0085	Introduction to Web Design	3
AAD 0086	Intermediate Web Design	3
AAD 0087	Content Management Systems for Designers	3
AAD 0090	Interaction Design for Web Products	3
Total Units		**15**

Courses

Understanding course descriptions (p. 311)

AAD 0012. Visual Communication
Units: 3
Also known as COMM 12
Hours: 54 lecture
Study of visual communication including design principles, aesthetics, visual perception, non-verbal messages, relationship to verbal communication, audience analysis, mass media and persuasion. Historical overview of visual media as well as current trends and technology. (C-ID JOUR 170) (CSU, UC)

AAD 0013. History of Graphic Design
Units: 3
Hours: 54 lecture
History of graphic design and visual communication, including the sociopolitical and cultural contexts, as well as the artistic and technological characteristics of various movements. It includes modern graphic design movements of the 20th century through the expansive media innovations of current day. (CSU, UC)

AAD 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

AAD 0044. Sketching for Design
Units: 3
Hours: 72 (36 lecture, 36 activity)
Introduction to concept sketching techniques for design, illustration, photography and multimedia utilizing a variety of drawing media and creative problem solving concepts. Emphasis on developing visual communication skills for advertising, graphics, illustration, product design, and storyboarding for time-based media. (CSU)

AAD 0052. Publication Design I
Units: 3
Advisory: Completion of AAD 60 or AAD 70 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introductory course in use of computer for page layout and composition. Emphasis on the use of type, image, and layout as key elements in graphic communication. Covers importing text and graphics, layout principles, and producing print-ready artwork for reproduction. (CSU)

AAD 0053. Publication Design II
Units: 3
Prerequisite: Completion of AAD 52 with grade of "C" or better
Advisory: Completion of AAD 70 and AAD 54 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Page layout for developing and producing high-quality multi-page documents. Emphasis on publication design, production, typography, graphics, and pre-press. Includes research and application of effective magazine layout concepts, cover design, grid theory, graphics, text elements and printing standards and processes. (CSU)

AAD 0054. Typography
Units: 3
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
A professional and historical approach to understanding typographic principles and form, effects of type on the style and communication in print and screen. Includes study of historical and contemporary graphics and typographic design, conceptualizing, developing and refining typographical forms, methods for analyzing typographic usage, and proper application of type in a variety of print publications, screen environments, and computer generated typed forms. (CSU)

AAD 0055. Illustration
Units: 3
Also known as ART 55
Prerequisite: Completion of AAD 44, 60, 62, 75 or ART 4A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Professional practices of illustration, including concept development, communication of ideas, identification and use of appropriate styles and techniques, time management, pricing and contracts, and presentation of finished artwork. (CSU)

AAD 0060. Graphic Design I: Principles and Process
Units: 3
Advisory: Completion of AAD 44 and/or AAD 70 with grade(s) of "C" or better
Hours: 72 (36 lecture, 36 activity)
This course offers an introduction to graphic design and related fields in the creative industry. Topics include the principles and elements of design, methods for generating effective solutions to design problems using the design process, exploration of a wide variety of materials and techniques used in the industry, as well as the development of impactful presentations that showcase the research, testing, reflection, and refinement processes key to this field of study. (CSU)

AAD 0061. Graphic Design III: Branding and Production
Units: 3
Prerequisite: Completion of AAD 70 with grade of "C" or better, or completion of AAD 52, AAD 62, and AAD 75 with grade of "C" or better
Advisory: Completion of AAD 60 and AAD 54 with grade of "C" or better
Hours: 90 (27 lecture, 63 activity)
Advanced problem solving skills in graphic design across multiple, conceptually-linked assignments. Use of the computer to design effective graphic solutions and materials for print and screen. Research and and analysis of target audiences. Industry standards and procedures for working with art directors and printing service bureaus. (CSU)

AAD 0062. Digital Illustration
Units: 3
Advisory: Completion of AAD 70, AAD 44, or AAD 60 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Computer illustration for effective graphic communication. Emphasis on software tools and techniques in creation of graphic illustrations for use in a wide range of media including print, multimedia, and web. Application of design principles, the use of type and layout in combination with illustrations through class projects. Covers importing text and graphics, developing and executing design concepts, and producing print-ready artwork for reproduction using appropriate file formats and standards for integration into other electronic media. (CSU, UC)

AAD 0070. Graphic Design II: Introduction to Digital Design
Units: 3
Hours: 72 (36 lecture, 36 activity)
Introduction to fundamental concepts, techniques, and creation of art and design on the computer. Includes basic computer skills, photo manipulation, digital illustration, page layout, and preparation of images for print and screen environments. Students develop creative projects using current graphics software. (C-ID ARTS 250) (CSU, UC)

AAD 0071. Introduction to Digital Painting
Units: 3
Also known as ART 71
Prerequisite: Completion of AAD 44 or ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, tools, and techniques of painting and drawing using creative software. Exploration of traditional artistic techniques in a digital environment. Includes development of skills such as form, color, space, and composition. Development of projects in for both print and screen. (CSU)

AAD 0073. Digital Art Studio: Concepts and Practices
Units: 3
Also known as ART 73
Advisory: Completion of AAD 70, or AAD 75, or AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the tools, concepts, and processes for digital art creation with an emphasis on experimental animation, multimedia, digital art, and new genres. Topics include the integration of traditional design, color, and compositional principles with contemporary digital tools in an art studio context. (CSU, UC)

AAD 0075. Introduction to Photoshop
Units: 3
Also known as PHOT 75
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Introduction to the acquisition and computer enhancements of digital images for design and photography. Analysis and critique of images from initial concept to final project creation. Basic scanning, image adjustments, retouching, compositing, and file preparation for printing and other uses. (CSU, UC)

AAD 0076. Advanced Projects in Photoshop
Units: 3
Also known as PHOT 76
Prerequisite: Completion of PHOT 75 or AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Advanced digital project development using Photoshop. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Integration of other software programs. Evaluations and critiques of completed projects. (CSU)

AAD 0079. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as COMM 31A and PHOT 79
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

AAD 0082. Intermediate Digital Filmmaking
Units: 3
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the pre-production, production and post-production process of filmmaking at an intermediate level. Students produce advanced digital films that incorporate industry standard pre-production preparation such as script writing, storyboarding, and development of a production book. The production process incorporates sound recording, mixed soundtracks, camera work with an emphasis on visual metaphors, and detailed lighting schemes. Post-production focuses on advanced picture and sound editing techniques along with formatting for distribution. (CSU)

AAD 0083. Introduction to Three-Dimensional Modeling
Units: 3
Advisory: Completion of AAD 70 and ART 4A with grades of "C" or better
Hours: 108 (27 lecture, 81 laboratory)
This 3D-Modeling course focuses on the concepts of three dimensional computer graphics including how they are used in a variety of industries for both digital media and the physical world. Development of a visual vocabulary for creative expression through lecture presentations. By using industry standard tools and applications, students will complete projects involving modeling, animations, texturing, and lighting. (CSU)

AAD 0085. Introduction to Web Design
Units: 3
Advisory: Completion of AAD 70 or 75 with grade of "C" or better
Hours: 90 (36 lecture, 36 laboratory, 18 activity)
An introduction to web design, covering topics and strategies necessary for the creation and design of websites. Topics include semantic markup using HyperText Markup Language (HTML); design through the use of Cascading Style Sheets (CSS); human-centered design problems specific to web delivery; the creation and optimization of graphics and images for the web; accessibility; search engine optimization, and current industry standards. (CSU)

AAD 0086. Intermediate Web Design
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Intermediate course in front-end web design and development. Current topics will be covered as they relate to user interface design, user experience design, usability principles, and accessibility expectations. Intermediate strategies addressing visual design and brand identity through the combination of layout design, visual assets such as images and graphics, copy and content, typography, and more. Special topics include coverage of industry standards and emerging technologies. (CSU)

AAD 0087. Content Management Systems for Designers
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Advisory: Completion of AAD 86 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Intermediate-level course in front-end Web development and design with a focus on development within a CMS environment (Content Management System). Students learn how to install a CMS; work on a local server and hosted server for development; enhance the site functionality with plugins, widgets, and themes; customize the appearance of the site to meet brand identity requirements; manage visitor interactions; and manage updates and security issues. (CSU)

AAD 0088. History of Filmmaking
Units: 3
Hours: 54 lecture
Entry level film history course covering the birth of cinema to present-day. Also covers cinema's relationship to new media and digital technology. Students will acquire general knowledge of film language that is the product of its historical and cultural contexts. Historical study begins in Europe and the United States where cinema was first developed and moves across various regions around the world as it relates to cinematic history. (CSU, UC)

AAD 0089. Documentary Filmmaking
Units: 3
Also known as PHOT 89
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the principles, techniques and terminology that are specific to documentary filmmaking. Students produce documentary films that incorporate industry standard pre-production preparation such as creating contracts, research, location surveys, and script writing. Major topics include camera operation, capturing b-roll, location sound recording, mixing, editing and formatting for distribution. (CSU, UC)

AAD 0090. Interaction Design for Web Products
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Interaction Design for the Web with a focus on User Experience (UX) and User Interface (UI) design. This course covers the use of CSS, HTML, and JavaScript for creating interactive elements and engaging digital products. The use of scripts, animation, and multimedia tools and processes will be covered, as will the use of forms and input elements. Stylistic concerns, content development for a targeted audience, and the digital product design process will be examined. Students create original products focusing on integrating interactivity and animation while applying usability principles. (CSU)

AAD 0093. Introduction to Motion Graphics
Units: 3
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to fundamental concepts, practices, and theories of digital, time based, production. Application of graphic design principles to filmmaking and video production using various forms of animation and visual effects. Exploration of traditional and experimental approaches to creating dynamic visual content for use in video, design and animation. Topics include the integration of text, video, graphics, and sound into short animation pieces as well as components for larger productions. Aesthetic, conceptual and technological considerations discussed and applied. (CSU, UC)

AAD 0094. Digital Animation
Units: 3
Prerequisite: Completion of AAD 70, AAD 44, or ART 4A with grade of "C" or better
Advisory: Completion of AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Digital Animation focuses on animation principles, structure, concept design, project planning, storytelling, as well as industry standard animation tools and techniques. Explores mass media output for animation and their appropriate animation styles and development. (CSU)

AAD 0095. Internship in Applied Art and Design
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AAD 0096. Portfolio Design
Units: 3
Formerly known as AAD 20
Hours: 72 (36 lecture, 36 activity)
Intended for students nearing program completion and who have determined they will pursue a future as a creative professional. The course covers the development of a professional digital portfolio for emerging creative professionals. Topics include work selection and sequencing, design, and formatting, the integration of written content, as well as portfolio output and distribution. Students will also create professional documents including a résumé, biography, and statement. Professional communication practices and industry expectations will also be covered. (CSU)

AAD 0097. Business Practices for Creative Professionals
Units: 3
Formerly known as AAD 66
Hours: 54 lecture
Intended for students nearing program completion and who have determined they will pursue a future as a creative professional. The course covers business skills and best practices for emerging creative professionals, including legal requirements for operating a business, drafting contracts, pricing and billing, copyright protections and completing "work for hire," licensing structures, and methods for building and maintaining professional relationships with clients, industry colleagues, and related business services. (CSU)

Program Student Learning Outcomes (PSLOs)

- Generate informed design solutions by applying the elements and principles of design to enhance the concepts and content through the application of the design process.
- Prove a command of industry-standard software, tools, and practices in preparation for entry into the industry.
- Optimize designs for various delivery methods such as print or screen, utilizing the appropriate formats and technologies as required.
- Critique the application of the elements and principles of design as applied to course-related creative projects as well as to contemporary and historical works, using relevant terminology.
- Develop a portfolio consisting of work samples that illustrate the styles, mediums, skills, talents, and subject area of interest to the student.
- Explain the key principles of ethical imaging including the use and application of Artificial Intelligence, copyright, Creative Commons, fair use, and public domain; apply these principles appropriately in creative projects.

Art
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The faculty of the Art Department is committed to the objective of making the arts of the past and present available to the students through historical surveys and the studio experience. It is believed that this heritage of thought and skill, going beyond our immediate time and culture, will enrich the students' lives, their personal view of their world and their communication of ideas, through added knowledge and inter-cultural understanding.

TRANSFER MAJOR REQUIREMENTS in Art are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in Art are qualified are professional artist, teacher, fine artist and crafts artist.

(Student art work may be retained by the Department, at its discretion, for one year)

Faculty

Brenna M. Chapman
Professor, Art/Art History/Women and Gender Studies
B.A., University of California, Davis
M.A., University of California, Davis

Sandra C. Escobar
Professor, Art
B.A., California State University, Northridge
M.A., California State University, Northridge
M.F.A., California State University, Chico

Nicholas Gagliardi
Assistant Professor, Art
B.F.A, Sonoma State University
M.F.A, University of Georgia

Jennifer Packer
Professor, Art
B.A., Rutgers State University
M.F.A., University of California, Santa Barbara

Degrees/Certificates

Associate Degree for Transfer

Associate Degree

Studio Arts for Transfer
AA-T Degree
Studio Arts is a program that provides students with broad exposure to the visual arts through basic requirements in two and three-dimensional studio and art history. Program curriculum introduces students to the fundamental concerns of art, including lab and material safety, visual literacy, design, problem solving and critical thinking. Through various hands on projects, students develop the skills necessary to approach problems, analyze constraints and requirements and use appropriate techniques to invent creative solutions in a variety of media.

The Associate in Arts in Studio Arts for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Studio Arts or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Studio Arts for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and

- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ARHI 0120	Survey of Western Art II: Renaissance Traditions	3
ARHI 0130	Survey of Western Art III: Modern through Contemporary	3
ART 0002	Two-Dimensional Design Foundations	3
ART 0003	Three-Dimensional Design Foundations	3
ART 0004A	Drawing I	3
Select 3 units from the following:		**3**
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
Select 9 units from the following:		**9**
ART 0004B	Drawing II	
or ART 0005A	Figure Drawing I	
ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
or ART 0008A	Watercolor Painting I	
or ART 0009A	Acrylic Painting I	
ART 0012A	Sculpture I	
or ART 0017	Ceramic Sculpture/Handbuilding	
ART 0018A	Ceramics I	
ART 0022	Metal Arts	
ART 0032A	Fiber Arts I	
or ART 0041	Introduction to Jewelry and Metalsmithing	
ART 0040A	Printmaking I	
ART 0073	Digital Art Studio: Concepts and Practices (also AAD 0073)	
PHOT 0060A	Beginning Photography	
ART 0005B	Figure Drawing II	
or ART 0007B	Oil Painting II	
or ART 0008B	Watercolor Painting II	
or ART 0012B	Sculpture II	
or ART 0018B	Ceramics II	
or ART 0019	Figure Sculpture	
or ART 0020	Raku Ceramics	

or ART 0040B	Printmaking II	
Total Units		**27**

Studio Art
AA Degree
(formerly Art)

The AA program in Studio Art is intended to prepare students for entry-level positions in the fine and applied art fields. The program seeks to provide breadth through basic requirements in two and three-dimensional studio and art history courses. Additional course work is selected by students toward specific career alternatives such as fine artist, graphic designer, crafts person, illustrator, or computer artist. Employment opportunities in these fields are highly dependent on the quality and breadth of one's artistic portfolio. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ARHI 0120	Survey of Western Art II: Renaissance Traditions	3
ARHI 0130	Survey of Western Art III: Modern through Contemporary	3
ART 0002	Two-Dimensional Design Foundations	3
ART 0003	Three-Dimensional Design Foundations	3
ART 0004A	Drawing I	3
Select 3 units from the following:		**3**
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0132	History of Women in Art	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
Select 9 units from the following:		**9**
ART 0004B	Drawing II	
ART 0005A	Figure Drawing I	
ART 0005B	Figure Drawing II	
ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
ART 0007B	Oil Painting II	
ART 0008A	Watercolor Painting I	
ART 0008B	Watercolor Painting II	
ART 0009A	Acrylic Painting I	
ART 0009B	Acrylic Painting II	
ART 0012A	Sculpture I	

ART 0012B	Sculpture II
ART 0017	Ceramic Sculpture/Handbuilding
ART 0018A	Ceramics I
ART 0018B	Ceramics II
ART 0019	Figure Sculpture
ART 0020	Raku Ceramics
ART 0022	Metal Arts
ART 0024	Advanced Metal Arts
ART 0028	Independent Study
ART 0032A	Fiber Arts I
ART 0033	Art Metal Casting
ART 0034	Collage and Assemblage
ART 0040A	Printmaking I
ART 0040B	Printmaking II
ART 0041	Introduction to Jewelry and Metalsmithing
ART 0052	Portrait Drawing and Painting
ART 0055	Illustration (also AAD 0055)
or ART 0071	Introduction to Digital Painting
or AAD 0020	Portfolio Design
or AAD 0071	Introduction to Digital Painting
or AAD 0090	Interaction Design for Web Products
or PHOT 0060B	The Creative Image
Total Units	**27**

Courses

Understanding course descriptions (p. 311)

ART 0002. Two-Dimensional Design Foundations
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, applications, and historical and contemporary references related to two-dimensional art and composition, including the study of the basic principles and elements of line, shape, texture, value, color, proportion, and spatial illusion. Students develop a visual vocabulary for creative expression through lecture presentations, studio projects, problem-solving, and written assignments. (C-ID ARTS 100) (CSU, UC)

ART 0003. Three-Dimensional Design Foundations
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, applications, and historical references related to three-dimensional design and spatial composition, including the study of the elements of art and principles of design as they apply to three-dimensional space and form. Development of visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. (C-ID ARTS 101) (CSU, UC)

ART 0004A. Drawing I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to quick and long forms of drawing; different types of line drawing including gesture and contour; rendering of volumetric form showing light and shadow; description of forms in space along with perspective drawing; and basic principles of compositional arrangement or placement of elements on the page. Instruction in the use of black and white drawing media including pencil, charcoal, and ink. References to various historical and cultural styles, including non-eurocentric examples and techniques. (C-ID ARTS 110) (CSU, UC)

ART 0004B. Drawing II
Units: 3
Prerequisite: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Continued exploration of the various concerns of drawing, including gesture and contour drawing, rendering of volumetric form showing light and shadow, description of forms in space, and basic principles of compositional arrangement using color drawing media including pencils, pastels, and inks. Drawing studied with reference to various historical, contemporary, and cultural styles and techniques. Creative studies in scale, non-traditional materials, and different surfaces also explored. (C-ID ARTS 205) (CSU, UC)

ART 0005A. Figure Drawing I
Units: 3
Prerequisite: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to drawing the human figure from direct observation using live models and a variety of black and white drawing media and techniques. Topics include an introduction to human anatomy and the historical and contemporary roles of figure drawing. Students practice objective, descriptive approaches to drawing the figure. (C-ID ARTS 200) (CSU, UC)

ART 0005B. Figure Drawing II
Units: 3
Prerequisite: Completion of ART 5A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced drawing of the human figure from direct observation of live models. Continued explorations of the human form in space, anatomical construction, proportions, and composition with emphasis on the use of color. Study of figurative art in historical and global cultural contexts. Students practice subjective, expressive interpretations of the human figure, building on fundamental drawing skills to develop personalized approaches to drawing the human form through exercises covering various historical and contemporary approaches to drawing. (CSU, UC)

ART 0006C. Color Theory
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Basic principles and properties of color. Theoretical study and direct studio projects of historical and contemporary colorists. Study of the physics of light and color; physiology of color vision; psychological and compositional effects of color use; cultural interpretations and traditions; history of color theory and its impact on art and design. (C-ID ARTS 270) (CSU, UC)

ART 0007A. Oil Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An introduction to the techniques and concepts of oil painting. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, introduction to color theory, and sources of inspiration are explored through in-class and independent painting assignments. (CSU, UC)

ART 0007B. Oil Painting II
Units: 3
Prerequisite: Completion of ART 7A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of oil painting techniques and concepts. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, color theory, and sources of inspiration are explored through in-class and independent painting assignments, with emphasis on development of personal expression and style. (CSU, UC)

ART 0008A. Watercolor Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to watercolor as a transparent painting medium through exploration of traditional watercolor methods and techniques. Topics include composition, color use, development of sources of personal inspiration, and the study of watercolor in historical and contemporary art periods. (C-ID ARTS 210) (CSU, UC)

ART 0008B. Watercolor Painting II
Units: 3
Prerequisite: Completion of ART 8A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced, in-depth study of the techniques and processes of painting in transparent watercolor. Continued exploration of design and composition with emphasis on the subjective and expressive use of color, including abstract and non-objective approaches. Students practice subjective uses of watercolor to develop personal style. Watercolor painting studied in relation to global and cultural contexts. (CSU, UC)

ART 0009A. Acrylic Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An introduction to the techniques and concepts of acrylic painting. Painting techniques explored in historical, cultural, and contemporary contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, introduction to color theory, and sources of inspiration explored through in-class and independent painting assignments. (C-ID ARTS 210) (CSU, UC)

ART 0009B. Acrylic Painting II
Units: 3
Prerequisite: Completion of ART 9A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of acrylic painting techniques and concepts. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, color theory, and sources of inspiration are explored through in-class and independent painting assignments, with emphasis on development of personal expression and style. (CSU, UC)

ART 0012A. Sculpture I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduces the fundamental issues of sculpture through a variety of materials, processes and techniques. Skills acquired in a wide range of techniques and materials, both traditional (wood, metal, plaster) as well as non-traditional (fabric, video projections, performance, sustainable/salvaged/recycled materials). Emphasis on conceptual idea development, connecting metaphorical ideas and symbolic meaning to the crafting/making of sculptural objects. (CSU, UC)

ART 0012B. Sculpture II
Units: 3
Prerequisite: Completion of ART 12A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
In-depth exploration of sculpture philosophy and materials with a focused emphasis toward development of personal direction and individual style. Students work with a variety of materials to create works of art. (CSU, UC)

ART 0017. Ceramic Sculpture/Handbuilding
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Exploration of various ceramic hand-forming methods with clay as a medium; cultural, traditional, and contemporary ceramics techniques explored through the development of three-dimensional projects. Emphasis on handbuilding and hand forming techniques. (CSU, UC)

ART 0018A. Ceramics I
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the ideas, techniques, history and tradition of the art and craft of ceramics. Designed for students interested in working with clay, the course provides experiences in making functional as well as sculptural pieces using a variety of techniques. Emphasizes well-thought-out forms, designs and functional uses along with good craftsmanship. Ceramics explored through handbuilding projects, wheel throwing, decorating and glazing of ceramic works. A rigorous exploration of clay as a craft and art form. (CSU, UC)

ART 0018B. Ceramics II
Units: 3
Prerequisite: Completion of ART 18A with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Students integrate techniques and concepts learned in introductory ceramics to produce works of a more prioritized and personal nature. Introduces advanced techniques and concepts of using clay for creative expression to produce a fundamentally more self-directed portfolio using the potter's wheel and or hand building techniques. Provides increased sensitivity to the materials, to aesthetic design, and to further development of individual and imaginative use of the materials. Glaze technology is introduced. (CSU, UC)

ART 0019. Figure Sculpture
Units: 3
Advisory: Completion of ART 12A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to figure sculpture using the live model. Emphasis on understanding the human figure as it relates culturally to contemporary and traditional sculptural concepts. Introduction to a variety of construction materials beginning with clay, plaster and mixed media. (CSU, UC)

ART 0020. Raku Ceramics
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Raku, a traditional ceramics process. Explores origins and cultural developments and their application to the contemporary world. Includes fabrication techniques, glaze chemistry, firing techniques, and design theory. (CSU, UC)

ART 0022. Metal Arts
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Exploration of metalworking techniques, design principles, and material use for sculpture, functional and nonfunctional art forms. Common welding processes, forming, bending, and blacksmithing techniques for ferrous and nonferrous metals. (CSU)

ART 0024. Advanced Metal Arts
Units: 3
Prerequisite: Completion of ART 22 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced exploration of metal techniques, design principles, and material use for sculpture and functional and nonfunctional art forms. Emphasis on development of a personal creative vision, furthering technical skills, and complex problem solving. Includes ferrous and nonferrous metal machining, advanced welding techniques, advanced forming methods, and public outdoor art installation. (CSU)

ART 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ART 0032A. Fiber Arts I
Units: 3
Formerly known as ART 32
Hours: 90 (36 lecture, 54 laboratory)
Introduction to basic materials, methods and vocabulary used in fiber and textile media as well as the hands-on development of expressive visual ideas. Develop familiarization with materials and basic understanding of several off-loom construction techniques. Emphasis on techniques requiring little specialized equipment with materials that are found readily in the environment. Contemporary and historical development and cultural relevance of the fiber media is also explored. (C-ID ARTS 282) (CSU, UC)

ART 0033. Art Metal Casting
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Foundations of art casting techniques and skills with an emphasis on the elements of art and principles of design. Introduction to mold making, wax working, traditional and nontraditional metal casting methods, chasing finishing for bronze and aluminum. (CSU)

ART 0034. Collage and Assemblage
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Explores the variation and formation of an altered surface with found and constructed materials. The application of historical and contemporary techniques and concepts provides the foundation for creating two and three dimensional works of art. Development of a personal visual language is essential to this course. (CSU)

ART 0040A. Printmaking I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to printmaking processes. Direct practice in woodcut, linocut, and collagraph; planographic processes, such as monotype and monoprint; drypoint, a form of intaglio printing using a non-toxic etching process; stencil techniques; chine collé; color printing; registration; and traditional and contemporary printmaking practices. Students practice skills required to work in a shared studio environment using an etching press, and practice hand-pressing using various implements. Most inks used are soy-based and non-toxic. (C-ID ARTS 220) (CSU, UC)

ART 0040B. Printmaking II
Units: 3
Prerequisite: Completion of ART 40A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of printmaking processes. Direct practice in relief, intaglio, collagraph, monotype, and digital prints and transfers. Exploration of traditional and contemporary printmaking practices. Techniques of creating and labeling print editions. Students practice skills required to work in a shared studio environment using an etching press, and practice hand-pressing using various implements. Most inks used are soy-based and non-toxic. (CSU, UC)

ART 0041. Introduction to Jewelry and Metalsmithing
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to a wide range of methods, techniques, and materials used to create jewelry and small-scale metal artwork and objects. Includes examination of the history and contemporary practices of jewelry-making and small metal casting/fabrication with a global cultural perspective. (CSU)

ART 0052. Portrait Drawing and Painting
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to drawing and painting the human portrait from live models. Basic proportions, facial features, basic rendering and painting techniques, and portrayal of individual portrait characteristics with a variety of drawing and painting media. Historical study of the art form of portraiture integrated into studio projects. (CSU, UC)

ART 0055. Illustration
Units: 3
Also known as AAD 55
Prerequisite: Completion of AAD 44, 60, 62, 75 or ART 4A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Professional practices of illustration, including concept development, communication of ideas, identification and use of appropriate styles and techniques, time management, pricing and contracts, and presentation of finished artwork. (CSU)

ART 0071. Introduction to Digital Painting
Units: 3
Also known as AAD 71
Prerequisite: Completion of AAD 44 or ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, tools, and techniques of painting and drawing using creative software. Exploration of traditional artistic techniques in a digital environment. Includes development of skills such as form, color, space, and composition. Development of projects in for both print and screen. (CSU)

ART 0073. Digital Art Studio: Concepts and Practices
Units: 3
Also known as AAD 73
Advisory: Completion of AAD 70, or AAD 75, or AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the tools, concepts, and processes for digital art creation with an emphasis on experimental animation, multimedia, digital art, and new genres. Topics include the integration of traditional design, color, and compositional principles with contemporary digital tools in an art studio context. (CSU, UC)

ART 0095. Internship in Art
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Differentiate and evaluate verbally or in written form a work of art (his or her own art, the work of other students, and/or historical works of art) in terms of technical and aesthetic success and historical/cultural references.
- Analyze problem, formulate/invent idea then execute and use appropriate techniques to build or construct a solution/project that meets assignment criteria.
- Practice and demonstrate appropriate, safe and sustainable studio/lab practices, when inventing and producing solutions, to meet assigned project criteria.
- Use both pre-compiled knowledge and devise alternative knowledge structures to demonstrate understanding of works of art. Identify, analyze, and/or create images and objects which may contain multiple meanings and ways of communicating.
- Identify and analyze the achievements and contributions of significant artists and cultures throughout history.

Art History
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Art history encompasses the study of visual objects from the earliest human creations to the contemporary world. We live in an increasingly visual world, and the discipline of art history provides students a framework for critically interacting with that world. Through historical surveys and introduction to critical theory, students are equipped with the skills to recognize and analyze the style, form, and context of objects in isolation and in comparison. At the core of this study is verbal and written fluency in visual literacy. Students will be able to recognize and thoughtfully scrutinize the fundamental relationships between art and production, materials, individual creativity, communication, power, value systems, and culture.

Faculty

Brenna M. Chapman
Professor, Art/Art History/Women and Gender Studies
B.A., University of California, Davis
M.A., University of California, Davis

Degrees/Certificates
Art History for Transfer
AA-T Degree
Art History is a program that provides students with an understanding of the history of visual arts and architecture. The program curriculum introduces students to the different art historical methodologies that shape the study of art of the past and present. Students examine art objects stylistically and contextually while highlighting a relationship between the object and the cultural values and beliefs of its creators. Students also explore the role of the artist, the patrons and the audience of art throughout history. The courses emphasize the fundamentals of visual analysis resulting in critical thinking and writing, as well as visual literacy.

The Associate in Arts in Art History for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Art History or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Art History for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	3
ARHI 0120	Survey of Western Art II: Renaissance Traditions	3
ARHI 0130	Survey of Western Art III: Modern through Contemporary	3
ART 0004A	Drawing I	3
Select 3 units from the following Art History courses:		**3**
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
Select 3 units from the following, or unused course from the preceding area:		**3**
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (also PHOT 0010)	
ARHI 0142	History of Latinx and Chicanx Art	
Select 3 units from the following Studio Arts courses:		**3**
ART 0002	Two-Dimensional Design Foundations	
ART 0003	Three-Dimensional Design Foundations	
ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
ART 0012A	Sculpture I	
ART 0018A	Ceramics I	
ART 0040A	Printmaking I	
ART 0073	Digital Art Studio: Concepts and Practices (also AAD 0073)	
PHOT 0060A	Beginning Photography	
Total Units		**21**

Courses

Understanding course descriptions (p. 311)

ARHI 0101. Art Appreciation
Units: 3
Formerly known as ART 10
Hours: 54 lecture
Introductory course for non-art majors offering a look at works of art through the study of theory, terminology, themes, design principles, media, techniques, with an introduction to the visual arts across time and diverse cultures. (C-ID ARTH 100) (CSU, UC)

ARHI 0110. Survey of Western Art I: Prehistory through the Middle Ages
Units: 3
Formerly known as ART 1A
Hours: 54 lecture
Survey of developments in European and Near Eastern art and visual culture from Paleolithic times through the Middle Ages, including Mesopotamia, Egypt, Greece, Rome, and early Christian and Islamic cultures. Significant monuments and artworks of each major culture discussed, analyzed, and placed within historical context. Special attention paid to architectural monuments as both political and religious structures, the development of figural sculpture, and the evolving debate over the rightful ownership of ancient objects. (C-ID ARTH 110) (CSU, UC)

ARHI 0120. Survey of Western Art II: Renaissance Traditions
Units: 3
Formerly known as ART 1B
Hours: 54 lecture
Survey of developments in western art and visual culture from 1400-1850. Significant artists and monuments of each major period and region discussed, analyzed, and placed within historical context. Special attention given to the evolving status of the artist, the development of major European art institutions, and the functions of art and architecture within society. (combined with ARHI 130, C-ID ARTH 120) (CSU, UC)

ARHI 0130. Survey of Western Art III: Modern through Contemporary
Units: 3
Formerly known as ART 1C
Hours: 54 lecture
Study of the historical development of art and architecture in Europe and the United States from mid-nineteenth century to contemporary practices. Significant artists and structures of each major region and period discussed and analyzed within their historical contexts with special attention given to the changing status of the artist, the development of major Western art institutions and the functions of art and architecture in society. (combined with ARHI 120, C-ID ARTH 120) (CSU, UC)

ARHI 0132. History of Women in Art
Units: 3
Formerly known as ART 1E
Hours: 54 lecture
Surveys women in the arts of western civilization both as art subjects and artists. Includes introduction of critical approaches to gender, class, race, sexuality, and identity as they influence art production and representation in various cultures and time periods. (CSU, UC)

ARHI 0134. History of Photography
Units: 3
Formerly known as ART 11
Also known as PHOT 10
Hours: 54 lecture
Historical survey of photography as an art form and communication tool from its invention to the present. Explores various perspectives including photography as an art form and a technology, influential themes, periods, and photographers. Investigates technical considerations, photography's role in mass culture, and other societal influences. (CSU, UC)

ARHI 0140. History of the Arts of Africa, the Americas, and Oceania
Units: 3
Formerly known as ART 1G
Hours: 54 lecture
Study of various art forms of the cultures of Africa, the Americas, and Oceania from prehistoric times to the present. (C-ID ARTH 140) (CSU, UC)

ARHI 0142. History of Latinx and Chicanx Art
Units: 3
Hours: 54 lecture
Survey of 20th and 21st century Latinx and Chicanx art in context, covering historical origins, influences, and innovations as well as intersections with social justice, gender, sexuality, and race. (CSU, UC)

ARHI 0150. History of Asian Art
Units: 3
Formerly known as ART 1D
Hours: 54 lecture
Study of the painting, sculpture, architecture and other art forms of India, China, Japan, Korea, and Southeast Asia from prehistoric times to present. (C-ID ARTH 130) (CSU, UC)

ARHI 0155. History of Islamic Art
Units: 3
Formerly known as ART 1F
Hours: 54 lecture
Survey of the art and architecture produced by the wide and varied cultures that can be considered Islamic. Fourteen hundred years of visual culture from Spain to North Africa to the Middle East to South and South East are covered. In addition, special attention paid to the Islamic diaspora and the role of Islamic artists in the contemporary world today. (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Differentiate and evaluate verbally or in written form a work of art (his or her own art, the work of other students, and/or historical works of art) in terms of technical and aesthetic success and historical/cultural references.
- Analyze problem, formulate/invent idea then execute and use appropriate techniques to build or construct a solution/project that meets assignment criteria.
- Practice and demonstrate appropriate, safe and sustainable studio/lab practices, when inventing and producing solutions, to meet assigned project criteria.
- Use both pre-compiled knowledge and devise alternative knowledge structures to demonstrate understanding of works of art. Identify, analyze, and/or create images and objects which may contain multiple meanings and ways of communicating.
- Identify and analyze the achievements and contributions of significant artists and cultures throughout history.

Astronomy
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Astronomy curriculum introduces students to basic topics such as the characteristics of the Solar System, the nature of the sun and other stars, the galaxy we exist in, its extent and evolution.

Several different level courses are presented in a multi-mode instructional fashion--for example, multi-media, planetarium presentations and laboratory and field experiences. Special emphasis is placed on the understanding of observable celestial phenomena and events familiar to the individual's natural environment.

Faculty

David E. Dunn
Professor, Astronomy
B.S., University of California, Davis

M.S., University of Iowa
Ph.D., University of Iowa

Barry A. Rice
Professor, Astronomy
B.S., Rensselaer Polytechnic Institute
Ph.D., University of Arizona

Degrees/Certificates

Associate Degree

Astronomy (p. 74)

AS Degree
Successful completion of the curriculum in the Astronomy degree recognizes a concentration in the field of Astronomy. Successful completion of the curriculum in Astronomy and the associated electives prepare the student, who is interested in Astronomy, Physics, Planetary Sciences, and allied fields, for transfer to four-year colleges or universities. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following general education patterns:

- Sierra College Associate Degree Requirements (https://catalog.sierracollege.edu/student-resources/general-education/associate-degree-requirements/);
- California General Education Transfer Curriculum (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ASTR 0007	Life in the Universe	3
ASTR 0011	Observational Astronomy	1
ASTR 0014	Astrophotography and Imaging	1
Select 6 units from the following:		6
ASTR 0002	Introduction to Planetary Systems	
ASTR 0005	Introduction to Stars, Galaxies, and the Universe	
ASTR 0010	Elementary Astronomy	
Select a Physics Sequence:		**10-13**
PHYS 0105	General Physics I	
PHYS 0105L	General Physics I Laboratory	
PHYS 0110	General Physics II	
PHYS 0110L	General Physics II Laboratory	
OR		
PHYS 0205	Principles of Physics: Mechanics	
PHYS 0205L	Principles of Physics Laboratory: Mechanics	
PHYS 0210	Principles of Physics: Electricity and Magnetism	
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics	

PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics	
Total Units		**21-24**

Optional Recommended Elective:

Code	Title	Units
ASTR 0025	Frontiers in Astronomy	

Courses

Understanding course descriptions (p. 311)

ASTR 0002. Introduction to Planetary Systems
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and fundamental facts of astronomy associated with planetary systems. Includes historical developments of planetary astronomy, basic principles of planetary system observations and analysis, and general concepts for interpreting the night sky with charts and almanacs. Particular detail given to the formation, evolution, and current condition of the Sun and Solar System, as well as current knowledge of other planetary systems. (CSU, UC)

ASTR 0005. Introduction to Stars, Galaxies, and the Universe
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and fundamental facts of astronomy emphasizing stars, galaxies, and the universe. Includes historical developments of astronomy, basic principles of astronomical observations and analysis, and general concepts for interpreting the night sky with charts. Particular detail given to structure and evolution of stars, general characteristics of deep sky objects (star clusters, nebulae, and galaxies), large-scale structure of the Universe, and cosmology. (CSU, UC)

ASTR 0007. Life in the Universe
Units: 3
Formerly known as INT 11
Hours: 54 lecture
Study of the emerging discipline of astrobiology. Designed for science and non-science majors. Relevant principles of biology, astronomy, and earth science used in searching for life in the universe. Includes cultural and philosophical implications of life existing elsewhere in the universe. (CSU, UC)

ASTR 0010. Elementary Astronomy
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and the fundamental facts of astronomy. Includes historical developments of astronomy, the formation, evolution and current condition of sun and solar system, stellar structure and evolution, deep sky objects (star clusters, nebulae, galaxies), structure of universe, and cosmology. Not open to students who have successfully completed both ASTR 2 and ASTR 5. (CSU, UC)

ASTR 0011. Observational Astronomy
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ASTR 2, 5, or 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 laboratory
Basic interpretation of astronomical observations through telescopes, binoculars, computers, cameras, and other simple measuring equipment. Use of planetarium to facilitate recognition of constellations, stars, planetary motions, and study coordinate systems and celestial motions. Development of observational skills to study outdoor sky and outcomes of indoor laboratory experiments. Emphasis on quantitative and qualitative analysis of variety of astronomical data. (CSU, UC)

ASTR 0014. Astrophotography and Imaging
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ASTR 2, 5, or 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 laboratory
Basic principles and practices of astrophotography and image processing. Astronomical observations and data collection associated with the use of telescopes, binoculars, computers, cameras, and other related equipment. Development of observational techniques and data analysis procedures for the study of the outdoor sky with related indoor experiments and studies. Particular emphasis placed on quantitative and qualitative analysis of a variety of astronomical data collected with cameras. NOTE: About 5 nights of activities will be required. (CSU, UC)

ASTR 0025. Frontiers in Astronomy
Units: 3
Prerequisite: Completion of ASTR 5 or 10 with grade of "C" or better
Hours: 54 lecture
Topics at the forefront of astronomical research including an in-depth look beyond introductory astronomy. Emphasis on theoretical principles and supporting observational data. Includes relativity and warped spacetime, black holes, dark matter, quasars, gravitational waves, grand unified and super symmetry theories, and other recent developments in cosmology. (CSU, UC)

ASTR 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Demonstrate knowledge and skill in Observational Astronomy, correlating the observable sky to events in the cosmos.
- Explain knowledge and skill in Celestial Navigation, evaluating the significance of important astronomical phenomena.
- Operate a variety of Optical Systems, demonstrating proficiency in their use.
- Use various Imaging Systems to produce high quality image data products, demonstrating overall mastery of image reduction skills.
- Analyze basic science and core physics, to discover how they apply to astronomy.

- Use concepts from planetary astronomy to investigate the types of different planetary classes and other objects in the solar system.
- Develop an understanding of solar physics - the sun's method of energy production, its anatomy, solar phenomena, and life history.
- Relate core concepts in basic science to stellar astronomy, assessing the various factors that are important to stellar evolution.
- Synthesize information from various sources (classroom instruction, online resources, etc.) to produce a coherent understanding of galactic/extragalactic astronomy.
- Evaluate concepts in cosmology, relating concepts in underlying physics and observations to scientific frameworks of our universe's formation and evolution.
- Critique new findings in the frontiers of astrophysics, assessing and appraising their conceptual frameworks.
- Investigate astrobiology, and relate concepts of life, evolution, and the universe to what can be observed.

Athletics
Contact Information

Division
Wellness and Athletics

Dean
Rachel Johnson

Associate Dean
Darci Brownell

Division Office
Ft, Rocklin Campus

Overview

Athletics courses are designed to provide healthy, competitive athletic experiences for student-athletes in a variety of men's and women's sports. The athletics teams compete at the intercollegiate level and function as part of the California Community College Athletic Association.

Faculty

Mary V. Conway
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Daniel Diaz Romero
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management/Assistant Football Coach
B.S., University of California, Davis
M.A., Western Governor's University
M.S., University of Central Missouri

Heather Eubanks
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Lutheran University
M.A., Azusa Pacific University

John C. Fusano
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason S. Gantt
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California State University, Sacramento
M.S., California State University, Sacramento

Alanna Jackson
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., University of Nevada, Reno
M.S., California State University, Sacramento

Brandie Murrish
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben S. Noonan
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Robert B. Willson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Courses

Understanding course descriptions (p. 311)

ATHL 0100. Baseball Training
Units: 0.5-3
Formerly known as PHED 102
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced baseball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses baseball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate baseball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0101. Basketball Training
Units: 0.5-3
Formerly known as PHED 106
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses basketball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate basketball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0102. Cross Country Training
Units: 0.5-3
Formerly known as PHED 115
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced cross country skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses knowledge of running and training skills, strategy, and appreciation for developing improved fitness awareness through distance training. Intended for students with varsity high school experience who are preparing for competitive intercollegiate cross country. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0105. Springboard Diving Training
Units: 0.5-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced diving skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses diving training, skills, knowledge, strategy, and appreciation. Intended for students with high school and/or recreational experience who are preparing for competitive intercollegiate diving. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0106. Football Training
Units: 0.5-3
Formerly known as PHED 101
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced football skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses football training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate football. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0107. Golf Training
Units: 0.5-3
Formerly known as PHED 103
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golfing skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses golf training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate golf. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0109. Soccer Training
Units: 0.5-3
Formerly known as PHED 116
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced soccer skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses soccer training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate soccer. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0110. Softball Training
Units: 0.5-3
Formerly known as PHED 111
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced softball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses softball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate softball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0111. Swimming Training
Units: 0.5-3
Formerly known as PHED 107
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses swimming training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate swimming. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0112. Tennis Training
Units: 0.5-3
Formerly known as PHED 104
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced tennis skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses tennis training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate tennis. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0113. Track and Field Training
Units: 0.5-3
Formerly known as PHED 105
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced track or field event skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses physical training, skills, knowledge, and appreciation of track and field events. Intended for students with varsity high school experience who are preparing for competitive intercollegiate track and field. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0115. Beach Volleyball Training
Units: 0.5-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses beach volleyball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate beach volleyball. May be taken four times for credit. (CSU)

ATHL 0116. Volleyball Training
Units: 0.5-3
Formerly known as PHED 110
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses volleyball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate volleyball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0117. Water Polo Training
Units: 0.5-3
Formerly known as PHED 108
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses water polo training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate water polo. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0118. Wrestling Training
Units: 0.5-3
Formerly known as PHED 112
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses wrestling training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate wrestling. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0150. Intercollegiate Baseball (M)
Units: 1-3
Formerly known as PHED 161
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced baseball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate baseball competition conducted through NCAA and California Community College Athletic Association (CCCAA) rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0151. Intercollegiate Basketball (M)
Units: 1-3
Formerly known as PHED 143
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's basketball competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0152. Intercollegiate Basketball (W)
Units: 1-3
Formerly known as PHED 123
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's basketball competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0153. Intercollegiate Football (M)
Units: 1-3
Formerly known as PHED 142
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced football skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate football competition conducted through NCFA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0154. Intercollegiate Golf (M)
Units: 1-3
Formerly known as PHED 162
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golf skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's golf competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0155. Intercollegiate Golf (W)
Units: 1-3
Formerly known as PHED 127
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golf skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's golf competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0156. Intercollegiate Soccer (W)
Units: 1-3
Formerly known as PHED 124
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced soccer skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's soccer competition conducted through FIFA laws of the game and CCCAA rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0157. Intercollegiate Softball (W)
Units: 1-3
Formerly known as PHED 131
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced softball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's softball competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0158. Intercollegiate Swimming (M)
Units: 1-3
Formerly known as PHED 165
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's swimming and diving competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0159. Intercollegiate Swimming (W)
Units: 1-3
Formerly known as PHED 134
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's swimming and diving competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0161. Intercollegiate Tennis (W)
Units: 1-3
Formerly known as PHED 132
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced tennis skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's tennis competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0162. Intercollegiate Volleyball (W)
Units: 1-3
Formerly known as PHED 122
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's volleyball competition conducted through the California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0163. Intercollegiate Water Polo (M)
Units: 1-3
Formerly known as PHED 146
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's water polo competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0164. Intercollegiate Water Polo (W)
Units: 1-3
Formerly known as PHED 137
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's water polo competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0165. Intercollegiate Wrestling (M)
Units: 1-3
Formerly known as PHED 145
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate wrestling competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0166. Intercollegiate Beach Volleyball (W)
Units: 1-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced beach volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's beach volleyball competition conducted through NCAA and California Community College Athletic Association Rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0167. Intercollegiate Cross Country (W)
Units: 1-3
Formerly known as PHED 126
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced cross country skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's cross country competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0169. Intercollegiate Track and Field (W)
Units: 1-3
Formerly known as PHED 133
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced track and field skills, conditioning and previous competitive experience
Hours:58 laboratroy per unit
Intercollegiate women's track and field competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0170. Intercollegiate Wrestling (W)
Units: 1-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's wrestling competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0199. Intercollegiate Sports Conditioning
Units: 0.5-2.5
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced sport specific skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Instruction in sport-specific strength and conditioning protocols related to improving muscular strength, power, agility, and speed. Principles of sport-specific technical and tactical methodology presented. May be taken four times for credit. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Identify and practice high safety standards, support environmental needs, and provide a safe positive experience for other participants (students, student athletes, visiting athletes, community, and faculty).
- Demonstrate a measurable improvement in one or more fitness or sport specific components.
- Demonstrate essential motor skills to fit a variety of activities. Student will be able to describe and perform activities reflecting increased knowledge and ability over the semester.
- Develop personal responsibility and the importance of different leadership roles.
- Distinguish principles of healthy weight management through exercise and nutrition.
- Create a balance between physical fitness, social well-being, health, and academic success.

Automotive Technology

Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

The Automotive Technology Curriculum is designed to prepare students to become competent technicians and gain employment in the automotive industry at the completion of the program and to upgrade skills of those already in the field.

Automotive Technology Advisory Committee

- Dave Burkhard, Instructor, San Juan High School
- Robert Butler, Owner, Pacific Auto, Auburn
- Bill Cardwell, Car Care Center, Sacramento
- Lynn Cardwell, Car Care Center, Sacramento
- Art Coppock (Retired), Snap-on Tools, Sacramento
- Vic Delius, Service Manager, Weaver Chevrolet, Alta
- Russ French, Fleet Operations Supervisor, City of Rocklin
- Bill Happ, Woodcreek High School, Roseville

- Steve Ledbetter, Emeritus Professor, Sierra College
- David Lewis, Engineer, Department of Consumer Affairs, Engineering and Technology Research, Sacramento
- Tom Ley, Service Manager, Future Nissan, Roseville
- Mark Means, Instructor, Woodcreek High School, Roseville
- Michelle Oberg, Bureau of Automotive Repair, Citrus Heights
- Dick Panciera, Service Manager (Retired), Reliable Pontiac and Cadillac, Roseville
- John Panelli (Retired), Sierra College Automotive, Colfax
- Alan Rowley, Technician, Monroe Transmission
- Scott Ruskauff, Owner, Back to Life Auto, Lincoln
- Greg Sahr, Technician, Duncan's Auto Service
- John Scalaro, Snap-on Equipment
- Thomas Serpico, Service Manager, Future Nissan
- Vince Wisniewski, Snap-on Tools

Degrees/Certificates

Skills Certificate

Automotive Basics (p. 80)

Noncredit Certificate

Automotive Basics (p. 80)

Automotive Basics
Skills Certificate
Designed to give students foundational automotive skills, knowledge, and abilities required to enter the workforce.

This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
AUTO 0100	Basic Automotive Services and Repair	4
AUTO 0140	Automotive Skill Development	3
Total Units		**7**

Automotive Basics
Noncredit Certificate of Completion
Designed to give students foundational automotive skills, knowledge, and abilities required to enter the workforce.

This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
AUTO 0800	Basic Automotive Services and Repair	0
AUTO 0840	Automotive Skill Development	0
Total Units		**0**

Courses

Understanding course descriptions (p. 311)

AUTO 0028. Independent Study

Units: 1-3

Designed for students interested in furthering their knowledge at an independent study level where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

AUTO 0095. Internship in Automotive Technology

Units: 0.5-4

Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AUTO 0100. Basic Automotive Services and Repair

Units: 4

Hours: 108 (54 lecture, 54 laboratory)

Presents introductory automotive technical skills used by entry-level service technicians. Course content includes vehicle operation, tool usage, practical measuring skills, fasteners, electrical meter usage, common automotive services and problem solving techniques. Class projects are performed in an automotive shop environment to provide a hands-on experience with common industry tools and equipment. Emphasis is placed on basic shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help the student prepare for the ASE G1 service exam. (not transferable)

AUTO 0140. Automotive Skill Development

Units: 3

Prerequisite: Completion of AUTO 100 with grade of "C" or better

Hours: 110 (26 lecture, 84 laboratory)

Covers basic automotive component diagnosis, service and repair for major vehicle systems including: brakes, suspension, heating, air conditioning, electrical, engines and transmissions. Shop activities are designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations. Emphasis is placed on shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help students prepare for the ASE G1 service exam. (not transferable)

AUTO 0800. Basic Automotive Services and Repair

Units: 0

Hours: 108 (54 lecture, 54 laboratory)

Presents introductory automotive technical skills used by entry-level service technicians. Course content includes vehicle operation, tool usage, practical measuring skills, fasteners, electrical meter usage, common automotive services and problem solving techniques. Class projects are performed in an automotive shop environment to provide a hands-on experience with common industry tools and equipment. Emphasis is placed on basic shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help the student prepare for the ASE G1 service exam. (pass/no pass grading) (noncredit)

AUTO 0840. Automotive Skill Development

Units: 0

Prerequisite: Completion of AUTO 100 with grade of "C" or better or AUTO 800 with grade of "Pass"

Hours: 110 (26 lecture, 84 laboratory)

Covers basic automotive component diagnosis, service and repair for major vehicle systems including: brakes, suspension, heating, air conditioning, electrical, engines and transmissions. Shop activities are designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations. Emphasis is placed on shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help students prepare for the ASE G1 service exam. (pass/no pass grading) (noncredit)

Program Student Learning Outcomes (PSLOs)

- Develop industry required skills for students to gain automotive service entry level jobs such as lube technicians or technician aids.
- Provide courses for currently employed automotive service students to advance their skill and knowledge to be qualified for advanced placement job (journeyman).
- Support the automotive industry training needs by providing certification/license training courses.

Biological Sciences
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Biological Sciences Department offers course work in Anatomy, Biology, Botany, Microbiology, Physiology and Zoology.

TRANSFER AND MAJOR REQUIREMENTS in Biological Sciences are available in the Counseling Center. Transfer students planning to major in Biology, Botany, Zoology, Ecology, Microbiology, Anatomy, Physiology, Forestry, Wildlife Management, Natural Resources, Medicine, Dentistry, Veterinary Medicine, Optometry and Pharmacy should consult with a counselor for specific transfer requirements.

Faculty

Aoss Albumalalah
Assistant Professor, Biological Sciences
M.D., Baghdad University, Iraq, Baghdad
Ph.D., Baghdad University, Iraq, Baghdad

Mohammed Aly
Assistant Professor, Biological Sciences
M.D., Cairo University

April M. Bird
Professor, Biological Sciences
B.S., University of California, Santa Cruz
M.S., University of Oregon

Adriel B. Cruz
Professor, Biological Sciences
B.S., University of California, Davis
M.S., California State University, Sacramento

Jarred Dela Cruz
Assistant Professor, Biological Sciences
B.S., CSU Sacramento
M.S., San Francisco State University

Kwame Eshun
Assistant Professor, Biological Sciences
B.S., University of Cape Coast, Ghana
Ph.D., Loma Linda University

Emine Gunhan
Professor, Biological Sciences
M.D., Ankara University
M.S., Louisiana State University
Ph.D., University of California, Davis

Rachel Hamby
Assistant Professor, Biological Sciences

Matthew Holdgagte
Professor, Biological Sciences
B.S., University of New Hampshire
Ph.D, Portland State University

Omar Juarez
Assistant Professor, Biological Sciences

Monique Kolster
Assistant Professor, Biological Sciences
B.A., University of California, Santa Barbara
M.S., University of Montana

Karen Le Grand
Assistant Professor, Biological Sciences
B.A., California State University, Northridge
Ph.D, University of California, Davis

Keri R. Muma
Professor, Biological Sciences
B.S., University of the Pacific
M.S., University of the Pacific

Warren R. Place
Professor, Biological Sciences
B.S., Humboldt State University
Ph.D., University of California, Davis

Heather R. Roberts
Professor, Biological Sciences
B.S., Texas A and M University
M.S., Baylor University
Ph.D., Texas Tech University

Jennifer Skillen
Professor, Biological Sciences

B.S., University of California, Davis
Ph.D., Michigan State University

Ishtar Thomas-Lane
Professor, Biological Sciences
B.A., California State University, Sacramento
M.S., California State University, Sacramento

Sasha M. Warren
Professor, Biological Sciences
A.A., Chabot College
B.S., Humboldt State University
Ph.D., University of California, Davis

Degrees/Certificates

Associate Degree for Transfer

- Biology for Transfer (p. 82)

Associate Degrees

- Biological Sciences (p. 83)
- Watershed Ecology (p. 84)

Certificate of Achievement

- Watershed Ecology (p. 84)

Biology for Transfer
AS-T Degree
This program provides students with a strong foundation in biology. Upon completion of this degree, students will be able to apply the scientific method to design, conduct experiments, and test hypotheses; conduct scientific literature review, critically evaluate, and interpret biological information; outline the organization and integration of biological systems; apply laboratory and/or field skills necessary to answer biological questions; and, as an informed and responsible individual, evaluate contemporary biological issues that have social and/or ethical implications.

The Associate in Science in Biology for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in biology, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Biology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

NOTE: The California State University General Education Breadth pattern (CSU GE) is NOT an option for this degree.

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
BIOL 0001	General Biology	4
BIOL 0140	Organismal Biology	4.5-9
or BIOL 0002	Botany	
& BIOL 0003	and General Zoology	
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A	General Chemistry I - Part 1	
& CHEM 0003B	and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
MATH 0016A	Calculus for Social and Life Sciences	4
or MATH 0030	Analytical Geometry and Calculus I	
Select one of the following physics sequences:		**9-10**
PHYS 0105 & 0105L & PHYS 0110 & PHYS 0110L	General Physics I and General Physics I Laboratory and General Physics II and General Physics II Laboratory	
PHYS 0205 & 0205L & PHYS 0210 & PHYS 0210L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics and Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
Total Units		**31.5-38**

Biological Sciences
AS Degree

The Biological Science curriculum provides students with the opportunity to meet the requirements for transferring to four-year colleges in the areas of Agriculture, Animal Science, Biochemistry, Bioengineering, Biological Sciences, Biotechnology, Chiropractic, Clinical Lab Technician, Curator, Dental Hygiene, Dentistry, Environmental Studies, Forestry, Nutrition/Dietetics, Occupational Therapy, Plant Science, Pharmacy, Physical Therapy, Premedical, Nursing, Range Management, Veterinary Medicine, Wildlife/Fisheries Biologist and Zoologist, or entry level positions in related fields. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)

- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
Select At Least Two Courses:		**8.5-10**
BIOL 0001	General Biology	
BIOL 0002	Botany	
or BIOL 0140	Organismal Biology	
BIOL 0003	General Zoology	
or BIOL 0140	Organismal Biology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0006	Human Physiology	
Select 9-11 units from the following courses or unused courses from the previous area:		**9-11**
CHEM 0001A	General Chemistry I (OR)	
or CHEM 0003A	General Chemistry I - Part 1	
& CHEM 0003B	and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	
CHEM 0002A	Introduction to Chemistry I	
CHEM 0002B	Introduction to Chemistry II	
ESCI 0001	Physical Geology	
MATH 0011	Data Science for All	
MATH 0012	College Algebra	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0027	Trigonometry	
MATH 0029	Pre-Calculus Mathematics	
MATH 0030	Analytical Geometry and Calculus I	
MATH 0042	Business Calculus	
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory	
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
STAT C1000	Introduction to Statistics	
Select a minimum of .5 units from the following:		**.5-4**
BIOL 0016A	Local Ecosystems of Placer County	
BIOL 0016B	Local Ecosystems of Nevada County	
BIOL 0016C	Vernal Pools and the California Prairie	
BIOL 0016D	Biology of Waterfowl and Marsh Birds	
BIOL 0016E	Ecology of the Sierran Conifer Forest	
BIOL 0016G	Field Paleontology and Ancient Environments	
BIOL 0016H	Ecology of the Mendocino Coast	

BIOL 0016I	Biology of Mono Lake and the Great Basin	
BIOL 0016J	Ecology of Point Reyes National Seashore	
BIOL 0016K	Foothill Ecology of the Sierra Nevada	
BIOL 0016L	Aquatic and Riparian Environments of California Waterways	
BIOL 0016M	Marine Mammals and Birds	
BIOL 0016N	Ecology of the Modoc Plateau	
BIOL 0016O	Ecology of the High Sierra and White-Inyo Mountains	
BIOL 0016P	Ecology of Death Valley and Desert Ecosystems	
BIOL 0016Q	Ecology of Mid-Western North America	
BIOL 0016R	Canyon Lands of the Southwest	
BIOL 0016T	Ecology of the Northern California Coast	
BIOL 0016U	Ecology of the Central California Coast	
BIOL 0016V	Ecology of Southern California Deserts	
BIOL 0016W	Ecology of the Klamath and Southern Cascade Ranges	
BIOL 0016Y	Ecology of National Parks and Wilderness Ecosystems	
BIOL 0016Z	Ecology of the American River	
BIOL 0017B	Ecology of the Sutter Buttes	
BIOL 0023	Wildflower Identification	
Total Units		**18-25**

Recommended Electives

Code	Title	Units
CSCI 0010	Introduction to Computing	3
or CSCI 0050	Introduction to Unix/Linux	
ESS 0001	Introduction to Environmental Sciences and Sustainability	3

Watershed Ecology
AS Degree

The Watershed Ecology Technician's (WET) program offers courses leading to an associate in science degree. Watershed ecology includes the study of all aspects of the environment including organisms within an entire watershed-the land area draining into the major creeks and river systems. The program can serve as the basic preparation for entry-level positions with organizations and governmental agencies that perform a variety of environmental studies. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California General Education Transfer Curriculum (Cal-GETC) (https://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BIOL 0001	General Biology	4
or BIOL 0011	Concepts of Biology	
BIOL 0013	Field Methods in Ecology	3
BIOL 0014	Natural History, Ecology and Conservation (also ESS 0014)	4
BIOL 0095	Internship in Biological Sciences	1
ESS 0013	Environmental Regulations	1
GEOG 0090	Introduction to Geographic Information Systems (GIS)	4
Select 9-12 units from any of the following emphases: [1]		**9-12**
Animal Study Emphasis		
BIOL 0003	General Zoology	
BIOL 0016D	Biology of Waterfowl and Marsh Birds	
BIOL 0016M	Marine Mammals and Birds	
BIOL 0030	Introduction to Ornithology	
BIOL 0033	Introduction to Zoology	
BIOL 0035	Introduction to Entomology	
BIOL 0036	Introduction to Mammalogy	
Plant Study Emphasis		
BIOL 0002	Botany	
BIOL 0016C	Vernal Pools and the California Prairie	
BIOL 0016E	Ecology of the Sierran Conifer Forest	
BIOL 0023	Wildflower Identification	
BIOL 0024	Wildland Trees and Shrubs (Dendrology)	
General Emphasis		
AGRI 0221	Introduction to Soil Science	
BIOL 0016A	Local Ecosystems of Placer County	
BIOL 0017B	Ecology of the Sutter Buttes	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ESS 0008	California Water	
ESS 0010	Conservation of Natural Resources	
GEOG 0001	Physical Geography	
STAT C1000	Introduction to Statistics	
Total Units		**26-29**

[1]

Only 3 units total may be taken from the BIOL 16 and BIOL 17 field study courses. Courses are grouped according to specific interests, but students are not limited to a specific emphasis. Students opting to take BIOL 0001 are advised to consult with a counselor regarding pre/corequisites.

Watershed Ecology
Certificate of Achievement

Watershed ecology includes the study of all aspects of the environment including organisms within an entire watershed-the land area draining into the major creeks and river systems. The certificate program can serve as the basic preparation for entry-level positions with organizations and governmental agencies that perform a variety of environmental studies. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BIOL 0001	General Biology	4
or BIOL 0011	Concepts of Biology	
BIOL 0013	Field Methods in Ecology	3
BIOL 0014	Natural History, Ecology and Conservation (also ESS 0014)	4
BIOL 0095	Internship in Biological Sciences	1
ENGL 0001A	Academic Reading and Writing	3
or ENGL 0012	Writing in the Workplace	
ESS 0013	Environmental Regulations	1
GEOG 0090	Introduction to Geographic Information Systems (GIS)	4
Select 9-12 units from any of the following emphases: [1]		**9-12**
Animal Study Emphasis		
BIOL 0003	General Zoology	
BIOL 0016D	Biology of Waterfowl and Marsh Birds	
BIOL 0016M	Marine Mammals and Birds	
BIOL 0030	Introduction to Ornithology	
BIOL 0033	Introduction to Zoology	
BIOL 0035	Introduction to Entomology	
BIOL 0036	Introduction to Mammalogy	
Plant Study Emphasis		
BIOL 0002	Botany	
BIOL 0016C	Vernal Pools and the California Prairie	
BIOL 0016E	Ecology of the Sierran Conifer Forest	
BIOL 0023	Wildflower Identification	
BIOL 0024	Wildland Trees and Shrubs (Dendrology)	
General Emphasis		
AGRI 0221	Introduction to Soil Science	
BIOL 0016A	Local Ecosystems of Placer County	
BIOL 0017B	Ecology of the Sutter Buttes	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ESS 0008	California Water	
ESS 0010	Conservation of Natural Resources	
GEOG 0001	Physical Geography	
MATH 0013	Introduction to Statistics	
Total Units		**29-32**

[1]

Only 3 units total may be taken from the BIOL 16 and BIOL 17 field study courses. Courses are grouped according to specific interests, but students are not limited to a specific emphasis. Students opting to take BIOL 0001 are advised to consult with a counselor regarding pre/corequisites.

Courses

Understanding course descriptions (p. 311)

BIOL 0001. General Biology
Units: 4
Prerequisite: Completion of CHEM 1A, CHEM 3A/3B, or higher level chemistry course with grade of "C" or better; AND completion of intermediate algebra or higher with grade of "C" or better or appropriate placement; AND eligibility for ENGL 11
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Part of the BIOL 1/BIOL 140 and BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of general biological concepts including the scientific method, biomolecules, cell structure and function with emphasis on cellular and molecular biology, genetics, and evolution. Lab focuses on key concepts of cell and molecular biology. Non-life science majors see BIOL 10 or BIOL 11. (C-ID BIOL 190) (CSU, UC)

BIOL 0002. Botany
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of botany, including diversity, classification, life cycles, and evolutionary trends of plants, fungi, algae, and cyanobacteria. Emphasis is on the anatomy, morphology, physiology, development, evolution, and ecology of plants. Field trips may be required; transportation will be provided. Recommended for biology majors and students in environmental science, plant biology or related programs. Non-life science majors see BIOL 14, BIOL 21, or BIOL 24. Not recommended for students taking BIOL 140. (C-ID BIOL 155) (CSU, UC)

BIOL 0003. General Zoology
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of zoology through a detailed survey of the diversity of the animal kingdom, with an emphasis on the evolution and functional anatomy of the major groups. Field trips may be required; transportation will be provided. Recommended for biology majors and students in environmental science, pre-veterinary or related programs. Non-life science majors see BIOL 33. Not recommended for students taking BIOL 140. (C-ID BIOL 150) (CSU, UC-with unit limitation)

BIOL 0004. Microbiology
Units: 5
Prerequisite: Completion of high school chemistry, CHEM A, or higher level chemistry course with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Introduction to the biochemistry, morphology, physiology, genetics, and classification of microorganisms. Emphasis on the significance of microorganisms to human health and global ecology. Laboratory topics include traditional and modern techniques of microbial classification, recombinant DNA technology, and bacteriophage biology. Students enrolling in BIOL 4 after having taken BIOL 8A will lose credit for BIOL 8A. Not open to students that have successfully completed BIOL 8B. (CSU, UC-with unit limitation)

BIOL 0005. Human Anatomy
Units: 5
Prerequisite: Eligibility for ENGL 11
Advisory: Completion of BIOL 55, 56, HSCI 3, or previous science course with grade of "C" or better, or experience in health care field; completion of MATH D with grade of "C" or better; eligibility for ENGL C1000
Hours: 162 (54 lecture, 108 laboratory)
Structural organization, relationships among structures, and histology of the human body: gross and microscopic structure of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, from cellular to organ system levels of organization. This is a rigorous course in human anatomy primarily intended for nursing, allied health, kinesiology, and other health related majors. Cadaver prosections used for instruction. Nonmajors see BIOL 55, 56, and 56L. Students enrolling in BIOL 5 after having taken BIOL 7A will lose credit for BIOL 7A. (C-ID BIOL 110B) (CSU, UC-with unit limitation)

BIOL 0005X. Success in Anatomy
Unit: 1
Corequisite: Concurrent enrollment in BIOL 5
Hours: 18 lecture
Optional course for students concurrently enrolled in BIOL 5 to gain a deeper understanding of course material through discussions focused on anatomical concepts, terminology, and the implementation of anatomical knowledge to clinical and problem solving situations. Advanced study techniques, necessary for success in science courses, are modeled to strengthen student self-awareness, confidence, and ability to monitor learning. (CSU, UC)

BIOL 0006. Human Physiology
Units: 5
Prerequisite: Completion of CHEM 2A or 1A or 3A/3B; AND BIOL 5 or 7A/7B or 55 with grades of "C" or better
Advisory: Completion of MATH D with grade of "C" or better; completion of a non-majors general biology course with grade of "C" or better; and eligibility for ENGL C1000
Hours: 126 (72 lecture, 54 laboratory)
Study of the physiology, integration, and homeostasis of the human body from chemical through organism levels. Organ systems covered are integumentary, muscular, nervous, sensory, cardiovascular, lymphatic and immune, respiratory, urinary, digestive, endocrine, and reproductive system. Experiments using living and non-living models are performed in lab using methods of data acquisition, recording systems, and analysis of data. Primarily intended for Nursing, Allied Health, Kinesiology, and other health or life science majors. (C-ID BIOL 120B) (CSU, UC-with unit limitation)

BIOL 0010. Introduction to Biology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Designed for non-life science majors desiring an introductory biology course without a lab. Introduces the main concepts of biology, covering molecular and cell biology, heredity and nature of genes, biotechnology, evolution, diversity of life, and principles of ecology. Students enrolling in BIOL 11 after having taken BIOL 10 will lose credit for BIOL 10. Not recommended for students who have already completed BIOL 56. (CSU, UC-with unit limitation)

BIOL 0011. Concepts of Biology
Units: 4
Advisory: Eligibility for ENGL C1000 and MATH 12
Hours: 108 (54 lecture, 54 laboratory)
Designed for non-life science majors desiring an introductory biology course with a lab. Introduces the main concepts of biology, covering molecular and cell biology, heredity and nature of genes, biotechnology, evolution, diversity of life, and principles of ecology. Students enrolling in BIOL 11 after having taken BIOL 10 will lose credit for BIOL 10. Not recommended for students who have completed BIOL 56 and 56L. (CSU, UC-with unit limitation)

BIOL 0013. Field Methods in Ecology
Units: 3
Formerly known as BIOL 13B
Advisory: Completion of BIOL 14 or ESS 14 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
Introduction to methods for sampling and studying environmental parameters of ecosystems and organisms. Provides experience with quantitative and qualitative field research techniques and procedures applicable to environmental assessment and population monitoring and proper reporting methods. Field trips required. Students may be required to provide their own transportation. (CSU)

BIOL 0014. Natural History, Ecology and Conservation
Units: 4
Also known as ESS 14
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Introduction to the study of biology and ecology of organisms and ecosystems of the world, with an emphasis on California. Special focus on significance of functioning ecosystems and human influence on the environment. May include field trips during or in lieu of lab time. (CSU, UC)

BIOL 0015. Marine Biology
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
An introduction to the basic biological and ecological properties of major saltwater environments, including the conservation of and human impacts on marine resources. Designed for both science and non-science majors. Laboratory hours may be partially fulfilled by required field trips. Hiking and boat travel may be necessary. (CSU, UC)

BIOL 0016A. Local Ecosystems of Placer County
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces local natural areas and their inhabitants. Selected ecosystems in Placer County are investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016B. Local Ecosystems of Nevada County
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces local natural areas and their inhabitants. Selected ecosystems in Nevada County are investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016C. Vernal Pools and the California Prairie
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that explores the past, present, and future of California's prairie, grassland, and vernal pool ecosystems of the Central Valley. Emphasis on remaining natural areas and conservation efforts. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016D. Biology of Waterfowl and Marsh Birds
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field identification and observation of marsh birds (primarily ducks, geese, swans, and wading birds). Includes general waterfowl biology and ecology. Emphasizes evolution, migration, reproductive cycles, current population trends, and habitat needs. Operational needs and conflicts of national and local wildlife refuge system are discussed. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016E. Ecology of the Sierran Conifer Forest
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces forest biology/ecology, emphasizing interrelationships between the Sierran forest inhabitants (animals, plants, fungi) and their environment. Study sites include a variety of forest and other associated mountain ecological communities. Depending on season offered, special topics may include: fungi biology, wildflower ecology, tree anatomy and physiology, forest nutrient cycles, forest birds, and soil organisms. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016G. Field Paleontology and Ancient Environments
Units: 1-2
Also known as ESCI 16G
Hours: 30 (12 lecture, 18 laboratory) per unit
Investigations into the ecology of environments in the geologic past through field work at fossil sites. Comparisons and contrasts made between ancient (fossil) communities and the current (living) communities of selected study sites. Differences and similarities between the plants and animals used as evidence to reconstruct ancient ecological communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016H. Ecology of the Mendocino Coast
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study examining the Northern California Coast and its diverse ecological environments. Using the Fort Bragg/Mendocino/Fort Ross areas, investigates the biological relationships found in: the redwood, riparian, pygmy, mixed evergreen and closed-cone pine forests, and the shoreline communities of tidepool, sandy beach, dune, prairie and scrub. Plants, animals, environmental factors and effects of human activities are assessed for each of the ecological communities examined. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016I. Biology of Mono Lake and the Great Basin
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study investigating the natural history and ecology of the Great Basin with special emphasis on Mono Lake and the Mono Basin. Examines physical, biological, historical, and ecological aspects that make the Mono Basin unique. Emphasis on biological and ecological aspects of the Mono Basin. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016J. Ecology of Point Reyes National Seashore
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study exploring the coastal mosaic of Point Reyes National Seashore and vicinity. Using the ecological communities present (forests, shoreline, pond and prairie), this area provides a rich biological "laboratory" to study its unique organisms and natural ecosystems, including grasslands, mudflats, forests, marshes, cliffs, beach, and dune sites. Depending on season offered, emphasis may be on wildflowers, mushrooms, owls, elk, reptiles or other life forms. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016K. Foothill Ecology of the Sierra Nevada
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study investigating the ecology of the foothills to mid-montane zones of the Sierra Nevada. Focus on major terrestrial and aquatic ecosystems and ecological islands from 500 to 6000 feet elevation. This class may require ability to hike moderate distances on uneven ground. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016L. Aquatic and Riparian Environments of California Waterways
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study of the biological diversity and ecology of aquatic environments and the biology of water life. Focuses on the water cycle and its biological importance and human interactions. Ponds, vernal pools, streams, rivers, lakes, springs, meadows, bogs, marshes (fresh and salt), shorelines, deltas, and/or bay/estuary environments may be investigated. Study sites may include Lake Tahoe, the American River, San Francisco Bay and other aquatic locations. Hiking or boat travel may be necessary. This class may require ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016M. Marine Mammals and Birds
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study of the biology of marine mammals and marine birds. Shore and pelagic organisms are studied, emphasizing California-associated species and their habitats. Field and lecture topics include: ecology, evolution, behavior, reproduction, distribution, anatomy, physiology, identification, and population status of whales, true and eared seals, sea otters, shore, bay and pelagic birds. This class may require ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016N. Ecology of the Modoc Plateau
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field ecology of volcanic and cold desert landscapes found in the Modoc Plateau region of California/Oregon. Ecosystems and environmental relationships stressed. Areas of emphasis include forest ecology, fresh water marsh/watershed, environmental factors, volcanic geology, plant succession, and human influences. Study sites include Lava Beds National Monument and Tule Lake Wildlife Refuge. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016O. Ecology of the High Sierra and White-Inyo Mountains
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study which examines high-elevation mountain ecosystems using the high Sierra Nevada and White-Inyo Mountain Range of California as specific study sites. Observation and study of sub-alpine and alpine ecosystems like forests, montane chaparral, meadows, aquatic habitats, alpine tundra, and fell-fields. This class requires the ability to hike moderate to long distances on uneven ground at high elevations. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016P. Ecology of Death Valley and Desert Ecosystems
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study that explores the unique desert ecosystems of Death Valley National Park and nearby areas. Extreme differences of elevation from high mountains to below sea level provide a rich variety of desert environments, plants, and animals. Field work emphasizes identification of animals and plants (many unique to these exotic desert habitats), their special physical and behavioral adaptations to the harsh desert climate and habitats, and the effects of human activities upon the fragile desert ecosystems. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Q. Ecology of Mid-Western North America
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field introduction to ecology of the major biomes, communities and life zones of the Midwestern and Western regions of the United States, emphasizing plains grasslands, montane forests, desert badlands, alpine zones, and aquatic habitats. Topics explored in each ecological area include climate, common plants and animals, species relationships, geology, historical changes, paleoecology and other environmental factors. Fossil and other evidence of past environments compared to present communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016R. Canyon Lands of the Southwest
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field biology and ecology of the southwestern canyonlands and semi-arid regions, such as the areas in and around the Grand Canyon, Zion Canyon, Bryce Canyon, or other similar areas in the Southwest. Local plants, animals, microenvironments, river systems, human impacts and resource management and special biotic relationships with the canyon landscapes emphasized. This class requires the ability to hike moderate to long distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016T. Ecology of the Northern California Coast
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field course exploring the unique biological and ecological features of the California north coast. Coastal ecosystems studied include redwood forest, coastal grassland, rocky tidepools, marshes, stream, bog, coastal strand, and mixed-evergreen forest. Topics covered include climate, geology, ecology, plant and animal diversity, and human impacts. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016U. Ecology of the Central California Coast
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study of the unique features of the central California coast between Morro Bay, Big Sur, Monterey Bay, and Point Reyes National Seashore. Coastal habitats explored, identifying coastal plants, animals, and geologic processes, and emphasizing the interrelationships characteristic of coastal environments. Environments studied include sandy beach, ocean bay, tidepool, mudflat, coastal forest, oak woodland, grassland and coastal scrub. Areas are contrasted with other coastal regions. Human impacts and living styles viewed as they affect the natural environments. This class requires the ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016V. Ecology of Southern California Deserts
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Explore and study the "hot" deserts of southern California, such as the Mojave, Sonoran/Colorado, or other arid locations, discovering the unique animals and plants which are adapted to these extreme and beautiful environments. Deserts compared to nearby coastal habitats or the desert ecosystems in Arizona (depending on local conditions). California study sites visited may include Joshua Tree National Park, Mojave Desert, Salton Sea, and Anza-Borrego State Park. Focus on the interdependency between the physical environments and the biological inhabitants that live there.This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016W. Ecology of the Klamath and Southern Cascade Ranges
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study that explores ecology and unique features of the Klamath and southern Cascade mountain ranges. Study sites include a variety of locations such as Mt. Lassen, Crater Lake, and/or the Marble Mountains. Topics include conifer forest ecosystems, lake ecosystems, ecological succession, montane biogeography, volcanic history and geology. This class requires the ability to hike moderate distance on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Y. Ecology of National Parks and Wilderness Ecosystems
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study exploring the ecology of selected wilderness ecosystems in and/or around national parks. Observation and study of the various habitats (forest, chaparral, riparian, etc.), including the physical and biological factors shaping these ecosystems, and the management techniques, history, and objectives of wilderness preservation and resource use in these areas. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Z. Ecology of the American River
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study of the aquatic, riparian, and associated ecosystems of Sierra Nevada river systems with specific attention on the American River system. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0017B. Ecology of the Sutter Buttes
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces the ecology of the Sutter Buttes. The area is investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0021. Introduction to Plant Science
Units: 4
Also known as AGRI 156
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Emphasizes structure, growth, physiology and reproduction of flowering plants and their responses to modifications and environment; including propagation, media, soil and plant nutrition. Explores the interrelationship of plant science with other life sciences and technology. Applies principles of plant science to agricultural systems. (CSU, UC)

BIOL 0023. Wildflower Identification
Unit: 1
Hours: 26 (13 lecture, 13 activity)
Plant identification, terminology, keying, uses, and ecology. Field trips may require ability to hike moderate distances on unlevel ground. (CSU)

BIOL 0024. Wildland Trees and Shrubs (Dendrology)
Units: 4
Also known as AGRI 163
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A study of botanical characteristics, taxonomy, and physiology of the major trees and shrubs in the Western United States with emphasis on California. Discussion of plant community relationships, geographical ranges, and human impact on forest ecosystems. Identifying specimens under field conditions and using herbarium specimens. (CSU)

BIOL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

BIOL 0030. Introduction to Ornithology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of birds, with an emphasis on northern California avifauna. (CSU, UC)

BIOL 0033. Introduction to Zoology
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A survey of the animal kingdom emphasizing the evolution, structure, function, ecology, and natural history of major groups of animals. Designed for non-science majors. (CSU, UC-with unit limitation)

BIOL 0035. Introduction to Entomology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of insects, with examples from the insect fauna of northern California. Describes the key relationships (medical, agricultural, etc.) insects have with humans. Recommended for general education students or other majors interested in entomology. (CSU, UC)

BIOL 0036. Introduction to Mammalogy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of mammals, with an emphasis on species of northern California. Topics include: identifying characteristics, local species, ecological relationships, human interactions, and behavioral, structural, and physiological adaptations. Recommended for general education students or other majors interested in mammals. (CSU)

BIOL 0055. General Human Anatomy and Physiology
Units: 4
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 108 (54 lecture, 54 laboratory)
An overview of the basic anatomy and physiology of all body systems. Designed for non-science majors and those interested in human anatomy and physiology. Experiments and observations performed on models, nonliving systems, and oneself. (CSU, UC-with unit limitation)

BIOL 0056. Biology: A Human Perspective
Units: 3
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 lecture
Principles of biology and how they relate to humans. Emphasis on the human organism, including anatomy, physiology, medicine, research, genetics, evolution, ecology and human impacts on the environment. Not recommended for Biological Sciences majors or students who have completed BIOL 10 or BIOL 11. (CSU, UC-with unit limitation)

BIOL 0056L. Biology: A Human Perspective Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in BIOL 56
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Optional laboratory course to be taken with BIOL 56. Topics parallel lecture course, including anatomy, physiology, medicine, research, genetics, evolution, ecology and human impacts on the environment. Not recommended for students who have completed BIOL 11. (CSU, UC-with unit limitation)

BIOL 0095. Internship in Biological Sciences
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

BIOL 0140. Organismal Biology
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 140 course series for life science majors. Introduction to the principles of ecological and evolutionary processes that shape biodiversity with an emphasis on evolutionary relationships among major groups of organisms, their distinguishing structural and functional traits, the function and evolution of major organ systems, and ecological interactions among organisms. Through lecture and lab activities the diversity of life on Earth is covered, including animals, plants, fungi, and unicellular organisms. Field trips may be required; transportation will be provided. Recommended for biology majors and students in related programs. Non-life science majors see BIOL 14. Not recommended for students taking BIOL 2 and BIOL 3. (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Apply the scientific method to design, conduct experiments, and test hypotheses.
- Conduct scientific literature review, critically evaluate, and interpret biological information.
- Outline the organization and integration of biological systems.
- Apply laboratory and/or field skills necessary to answer biological questions.
- As an informed and responsible individual, evaluate contemporary biological issues that have social and/or ethical implications.

Building Industries

Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

Building Industries curriculum includes job safety, construction skills, work ethics, and hands-on laboratory courses to provide trade related skills such as electrical, plumbing, carpentry, and photovoltaics. The program provides foundational training for building industries and construction management programs as well as training for entry-level employment in construction fields.

Faculty

Louie Garcia
Professor, Building Industries
B.S., University of Phoenix
M.B.A., University of Phoenix

Building Industries Advisory Committee

- Burne Engineering Services Inc., El Dorado Hills, CA
- Golden Sierra Job Training Agency, Roseville, CA
- LB Construction Inc., Roseville, CA
- North State Building Industry Association, Roseville, CA
- PHCC of California, Sacramento, CA
- Roseville Union High School District, Roseville, CA

Degrees/Certificates

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Associate Degrees
Construction Management (p. 90)
Drafting Architectural/Civil (p. 91)
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Certificate of Achievement
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Drafting Architectural/Civil (p. 91)
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Facilities Automation and Building Energy (p. 92)

Skills Certificates

Architectural Drafting Specialist (p. 92)

Construction Basics (p. 92)

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Noncredit Certificates
Construction Fundamentals (p. 92)
Energy Surveying and Lighting Retrofits (p. 92)
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Construction Management
AS Degree

The curriculum in Construction Management focuses on providing a broad base of knowledge and skills targeted toward the management of construction operations. The objective of the degree is to provide a foundation for continued study in construction management at a four-year college or university or for employment in the construction industry. The program is oriented toward the practical problems of the construction

industry and the curriculum emphasizes subject areas that provide a basis for employment in the industry including business, mathematics and foundational construction courses. Students completing the Construction Management program will find a wide variety of career choices including estimator, construction manager, construction owner, and project manager. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0, and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BI 0001	OSHA Construction Safety Training	1
BI 0005	Introduction to the Built Environment	3
BI 0006	Introduction to Construction Management	3
BI 0020	Foundations and Framing	3
BI 0022	Introduction to Energy Efficiency Construction	3
BUS 0201	Financial Accounting	3
BUS 0202	Financial Accounting II	3
BUS 0203	Managerial Accounting	3
ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
MATH 0016A	Calculus for Social and Life Sciences	4
or MATH 0030	Analytical Geometry and Calculus I	
PHYS 0105	General Physics I	4
PHYS 0105L	General Physics I Laboratory	1
Total Units		**37**

Drafting Architectural/Civil
AA or AS Degree

Successful completion of the curriculum in Drafting Architectural/Civil prepares students for entry-level positions as document support technicians in the fields of architecture, interior design and kitchen/bath design. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BI 0008	Civil Applications of Computer-Aided Design	3
BI 0010	Architectural Drawing I	3
BI 0011	Architectural Drawing II	3
BI 0012	Architectural Drawing III-BIM (Building Information Modeling)	3
BI 0015	Managing the Computer-Aided Design (CAD) Environment	3
BI 0022	Introduction to Energy Efficiency Construction	3
BI 0024	Fundamentals of Construction Documents and Estimating	3
BI 0095	Internship in Building Industries	0.5-4
Total Units		**21.5-25**

Optional Recommended Electives:

Code	Title	Units
BI 0020	Foundations and Framing	
BI 0026	Residential House Wiring and Codes	
BI 0032	Residential Building Codes	
BI 0034	Plumbing and Mechanical Installation and Design	
ENGR 0180	Engineering Surveying	

Drafting Architectural/Civil
Certificate of Achievement

Successful completion of the curriculum in Drafting Architectural/Civil prepares students for entry-level positions as document support technicians in the fields of architecture, interior design and kitchen/bath design. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BI 0008	Civil Applications of Computer-Aided Design	3
BI 0010	Architectural Drawing I	3
BI 0011	Architectural Drawing II	3
BI 0012	Architectural Drawing III-BIM (Building Information Modeling)	3
BI 0015	Managing the Computer-Aided Design (CAD) Environment	3
BI 0022	Introduction to Energy Efficiency Construction	3
BI 0024	Fundamentals of Construction Documents and Estimating	3
BI 0095	Internship in Building Industries	0.5-4
Total Units		**21.5-25**

Optional Recommended Electives:

Code	Title	Units
BI 0020	Foundations and Framing	
BI 0026	Residential House Wiring and Codes	
BI 0032	Residential Building Codes	

BI 0034	Plumbing and Mechanical Installation and Design	
ENGR 0180	Engineering Surveying	

Facilities Automation and Building Energy
Certificate of Achievement
The Facilities Automation certificate of achievement provides the essential skills and workforce preparation needed for careers related to automated building controls, such as building automation specialist, facilities manager, operating engineer, and facilities technician. Students will gain skills in automation, robotics, computer networking, information technology, and planning, installing and maintaining mechanical and plumbing systems.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BI 0034	Plumbing and Mechanical Installation and Design	3
BI 0095	Internship in Building Industries	.5-4
IT 0080	IoT - Internet of Things	3
IT 0105	Computer Network Fundamentals	3
MECH 0004	Fundamentals of Mechatronics	4
MECH 0025	Computers for Robotics and Automation	4
MECH 0054	Mechatronics Systems	4
Total Units		**21.5-25**

Architectural Drafting Specialist
Skills Certificate
Designed to give students the drafting support knowledge and abilities required to enter the workforce at the specialist level. Focuses on skills relative to specialized architectural documentation such as is used in architectural and civil construction trades. Appropriate for students seeking retraining. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BI 0008	Civil Applications of Computer-Aided Design	3
or BI 0022	Introduction to Energy Efficiency Construction	
BI 0010	Architectural Drawing I	3
BI 0011	Architectural Drawing II	3
BI 0012	Architectural Drawing III-BIM (Building Information Modeling)	3
Total Units		**12**

Construction Basics
Skills Certificate
The Construction Basics Skills Certificate curriculum prepares students to work safely for small to large home builders in a labor role. This skills certificate provides a foundation for students to help employers directly build residential homes. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BI 0001	OSHA Construction Safety Training	1
BI 0003	Introduction to Construction and CNC Woodworking	3
BI 0005	Introduction to the Built Environment	3
Total Units		**7**

Construction Fundamentals
Noncredit Certificate of Completion
The Construction Fundamentals certificate of completion provides the essential skills and workforce preparation needed for entry level careers in the building trades and construction industry. Students will gain knowledge and skills interpreting technical trade calculations, taking accurate measurements, blueprint reading, handling equipment and materials, basic building and installation methods and practicing safety construction techniques according to Occupational Safety and Health Administration (OSHA) standards.

Required Courses:

Code	Title	Units
BI 0805	Introduction to Industry and Occupational Safety for the Building Trade	0
BI 0806	Introduction to Building Trades and Tools	0
BI 0807	Basic Material Handling and Building	0
Total Units		**0**

Energy Surveying and Lighting Retrofits
Noncredit Certificate of Completion
The Construction and Energy Technology noncredit Certificate of Completion prepares students to work for businesses in residential and commercial energy auditing, electrical wiring and commercial lighting retrofit trade industries.

Required Courses

Code	Title	Units
BI 0800	Introduction to Energy Surveying	0
BI 0801	Basic Electricity and Wiring Fundamentals	0
BI 0802	Introduction to Lighting Retrofits	0
Total Units		**0**

Courses
Understanding course descriptions (p. 311)

BI 0001. OSHA Construction Safety Training
Unit: 1
Formerly known as CET 1
Hours: 18 lecture
Covers a variety of construction safety and health hazards workers may encounter. Provides safety information to construction workers about employee and employer rights and responsibilities. Emphasizes identification, avoidance, abatement, control, and prevention of job-related hazards on construction sites. This course is taught by authorized industry outreach trainers, and upon successful completion, students will receive the OSHA 10 Hour card. (not transferable)

BI 0002. OSHA 30-Hour Construction Safety Training
Units: 2
Hours: 36 lecture
Covers specific OSHA requirements as they apply to the construction industry and teaches safety awareness to help recognize and reduce the risks of job site hazards. This course is an orientation and covers safety and health hazards workers may face on construction work sites with emphasis on hazard identification, avoidance, control and prevention and is intended for supervisors or workers who have some safety responsibility. Upon successful completion, 30 hour OSHA card issued by instructor. (not transferable)

BI 0003. Introduction to Construction and CNC Woodworking
Units: 3
Formerly known as CET 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 1
Hours: 108 (36 lecture, 72 laboratory)
Designed to teach the skills required to be successful in the construction and woodworking industries. Topics include fundamentals of woodworking, safe operation of hand tools, introduction to wood CNC manufacturing, project drawings, and environmentally sound design and construction techniques. Hands-on experience with construction and woodworking tools and materials based on assigned student project(s). (not transferable)

BI 0005. Introduction to the Built Environment
Units: 3
Formerly known as CET 5
Hours: 54 lecture
Introduction to the building industry: trends, organizations, construction processes, contracting laws, regulations, business aspects and career pathways. (CSU)

BI 0006. Introduction to Construction Management
Units: 3
Prerequisite: Completion of BI 5 with grade of "C" or better
Hours: 54 lecture
Introduction to Construction Management. Topics are based on learning outcomes from the American Council for Construction Education (ACCE). This course introduces the structure of construction estimation, financing, and proper planning. (CSU)

BI 0007. Building with Green Construction Materials
Units: 4
Formerly known as CET 7
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 1
Hours: 180 (18 lecture, 162 laboratory)
Project-based study of the performance characteristics of building materials using sustainable construction techniques and materials. Includes the basic properties and installation techniques of metals, aggregates, cement products, asphalt products and wood. Safe handling of construction materials and tools. (CSU)

BI 0008. Civil Applications of Computer-Aided Design
Units: 3
Formerly known as DES 10
Prerequisite: Completion of ADVM 2 or BI 10 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Development of drafting skills used in the areas of industrial and civil engineering support. Emphasis on land division, determination of location and direction, development of plots based upon legal description and the fundamentals of utilizing surveying data as applied to preliminary and final maps. Designed for students who have attained an intermediate knowledge of the processes and practices of engineering design/drafting support. Introduction to AutoCAD Civil 3D software. (CSU)

BI 0010. Architectural Drawing I
Units: 3
Formerly known as DES 20
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Introduction to the fundamentals of residential construction and design documentation. Drawings of a residence are developed and detailed, to include sketches, site plan and floor plans, foundation, elevations, and section views. AutoCAD instruction is incorporated to develop CAD drawings and electronic data sets. (CSU)

BI 0011. Architectural Drawing II
Units: 3
Formerly known as DES 21
Prerequisite: Completion of BI 10 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Advances the skills and knowledge of residential architectural drawing production started in BI 10. Course focuses on production of residential architectural drawings of a 2-story wood framed house in the context of current and relevant building codes, construction materials and methods, industry standard work flow, production and graphic standards through the use of a drawing software application. Additional skills of software utilization, drawing management, complex drawing creation and printing will be covered. This course teaches intermediate AutoCAD skills. (CSU)

BI 0012. Architectural Drawing III-BIM (Building Information Modeling)
Units: 3
Formerly known as DES 22
Prerequisite: Completion of BI 11 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Continuation of the architectural design started in BI 10 and 11. Students utilize Building Information Modeling (BIM) using REVIT software to develop commercial architectural documentation (including electronic data sets) in adherence to the International Building Code (IBC) and local county and state codes. (CSU)

BI 0015. Managing the Computer-Aided Design (CAD) Environment
Units: 3
Formerly known as DES 40
Prerequisite: Completion of BI 8, ADVM 11 or BI 12 with grade of "C" or better, or equivalent as determined by instructor
Advisory: Completion of ADVM 3D with grade of "C" or better
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Designed for the advanced Drafting and Engineering Support student. Topics include proper CAD management skills and the development of "as built" models used in the manufacturing, architectural and civil disciplines. Focus on utilizing, creating and instituting CAD standards, policies and procedures. Development of prototypes integral to the design process in their chosen area of concentration (mechanical, civil and/or architecture). (CSU)

BI 0020. Foundations and Framing
Units: 3
Formerly known as CET 20
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of construction foundation and framing techniques involving layout and construction to include, establishing elevations, site preparation, types of foundation forms, rebar and bolt installation, concrete placement techniques for slab on grade, cast in place (CIP), and pre-cast installations, structural steel, various types of floor systems, and applicable code requirements specific to the above. Introduction to California Green Technology and "Net Zero Energy" policies and sustainability practices for residential, commercial, and industrial construction. (CSU)

BI 0022. Introduction to Energy Efficiency Construction
Units: 3
Formerly known as CET 22
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of residential, commercial, and industrial framing techniques to include interior and exterior walls, ceilings, roof systems, stair design, installation and placement of sub trades including dry mechanical, plumbing, electrical, and structural steel post and beam installations. Introduction the future of construction as it evolves utilizing California Green Technology, "Net Zero Energy" policies, and sustainability practices. (CSU)

BI 0024. Fundamentals of Construction Documents and Estimating
Units: 3
Formerly known as CET 24
Hours: 54 lecture
Establishes a vocabulary and understanding of construction related documents including the symbols and detail views of building plans. Cost estimating to include material and labor cost calculations, specifications, problem solving, and bid preparations. (CSU)

BI 0026. Residential House Wiring and Codes
Units: 3
Formerly known as CET 26
Hours: 108 (36 lecture, 72 laboratory)
Introduction in the electrical trade. Inside wiring as applied to residential, commercial, and industrial structures. Electrical service requirements for photovoltaic systems. Use of tools and materials of the trade. Review of the National Electrical Code and the applications and California Electrical Code updates to the California Green Technology and "Net Zero Energy" policies. (CSU)

BI 0028. Independent Study
Units: 1-3
Formerly known as CET 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

BI 0030. Finish Carpentry
Units: 3
Formerly known as CET 30
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 3
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of woodworking hand tools, power hand tools and woodworking machinery to safely develop knowledge and skills leading to finish trim carpentry. Emphasis on residential construction finish carpentry standards, details, nomenclature, trims, and methods of setting interior and exterior doors, window jamb and trims, closet packs, cabinet installs, wainscoting, stair trim and railings, base and ceiling trims and finished flooring applications. (not transferable)

BI 0032. Residential Building Codes
Units: 3
Formerly known as CET 32
Hours: 54 lecture
Instruction in building codes for light frame one- or two-story dwellings related to local jurisdictions and the State of California. Application of codes to existing buildings with a study of regulations and abatement procedures for standard frame and Insulated Concrete Forms (ICF) green technology buildings. Includes codes related to California Green Technology and "Net Zero Energy" policies. (not transferable)

BI 0034. Plumbing and Mechanical Installation and Design
Units: 3
Formerly known as CET 34
Hours: 108 (36 lecture, 72 laboratory)
Introduction to the planning, installing, and maintaining of mechanical (HVAC/R) and plumbing systems in accordance with local codes and ordinances. Includes use of materials and codes related to California Green Technology and "Net Zero Energy" policies. (CSU)

BI 0095. Internship in Building Industries
Units: 0.5-4
Formerly known as CET 95
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU)

BI 0800. Introduction to Energy Surveying
Units: 0
Formerly known as CET 800
Prerequisite: Completion of BI 1 with grade of "C" or better, or equivalent as determined by the program chair
Hours: 40 (24 lecture, 16 laboratory)
Competency-based course of instruction designed to align with the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) Level-1 energy auditing standards. Provides hands-on experience in residential and commercial energy auditing. Emphasis on principles and sources of energy, detailed facilities evaluation techniques, data collection for energy auditing, establishing baselines, and conducting accurate inventories. Includes workplace safety policies and practices to comply with OSHA guidelines. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0801. Basic Electricity and Wiring Fundamentals
Units: 0
Formerly known as CET 801
Prerequisite: Completion of BI 800 with grade of "Pass"
Hours: 40 (20 lecture, 20 laboratory)
This comprehensive introduction to electrical wiring provides a well-rounded understanding of the fundamentals of basic electricity, electrical safety, electrical circuitry, and the processes and procedures of the electrical wiring trades. Includes relevant electrical codes. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0802. Introduction to Lighting Retrofits
Units: 0
Formerly known as CET 802
Prerequisite: Completion of BI 801 with grade of "Pass"
Hours: 40 (20 lecture, 20 laboratory)
Provides well-rounded competency-based understanding of lighting retrofit trade fundamentals through hands-on experience in commercial retrofit procedures and skills. Includes electrical safety, policies, and practices as relate to retrofit work. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0804. Rapid Prototyping for Product Design
Units: 0
Formerly known as CET 804
Hours: 18 (9 lecture, 9 laboratory)
Hands-on exposure to processes used to fabricate prototypes. An introduction to tools and technologies for prototyping, including design for manufacture. Example products show the process from idea to market including the series of prototypes that helped get the product to successful sales. Course materials cover safe hand tool use, power woodworking hand tools, wood shop tools, laser cutting, and CNC routers. (pass/no pass grading) (noncredit)

BI 0805. Introduction to Industry and Occupational Safety for the Building Trade
Units: 0
Formerly known as CET 805
Hours: 28 (24 lecture, 4 laboratory)
Provides an introduction to the building trades as an occupation. Covers a variety of construction safety and health hazards workers may encounter. Provides safety information to construction workers about employee and employer rights and responsibilities. Emphasizes identification, avoidance, abatement, control, and prevention of job-related hazards on construction sites. Upon successful completion, 10 hour OSHA card issued by instructor. (pass/no pass grading) (noncredit)

BI 0806. Introduction to Building Trades and Tools
Units: 0
Formerly known as CET 806
Prerequisite: Completion of BI 805 with grade of "Pass"
Hours: 48 (27 lecture, 21 laboratory)
Provides an overview of the local/regional building trade industry. Introduces students to the proper and safe operation of hand and power tools used in construction. Covers the fundamentals of construction math, measurements and blueprints. Emphasizes the employability skills such as time management, communication and proper attire for success in the construction industry. (pass/no pass grading) (noncredit)

BI 0807. Basic Material Handling and Building
Units: 0
Formerly known as CET 807
Prerequisite: Completion of BI 806 with grade of "Pass"
Hours: 53 (36 lecture, 17 laboratory)
Provides an overview of building materials and techniques for construction. Introduces students to basic trades including plumbing, electrical, and HVAC. Covers the fundamentals of framing, flooring, and tiling. Explains relevant building codes. (pass/no pass grading) (noncredit)

Program Student Learning Outcomes (PSLOs)

- Demonstrate a fundamental understanding of the construction and energy industries and identify career pathways and opportunities.
- Identify code compliant construction.
- Demonstrate safety compliance in the construction and energy industries.
- Utilize fundamental building principles to lay out and construct structures and systems.
- Explain the principles of Green Building and prescribe building solutions utilizing emerging technology.

Business
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

The business discipline offers training in nine major areas: Accounting, Administrative Professional, Business Administration, Business Entrepreneurship, General Business, Management, Marketing and Real Estate. For Information Technology (formerly known as Computer Information Systems) and Computer Science, see separate catalog listings. The Business department plays a vital role in preparing students for their careers. Experience has demonstrated the importance of a background in general education for all students planning a career in business.

TRANSFER MAJOR REQUIREMENTS in Business Administration are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Graduates in Business Administration are qualified for positions in Accounting, Finance, Management, Marketing and Business Teacher Education.

AA and AS degrees can be earned in the major areas of business. Also some transfer majors may earn AA/AS degrees. Certificates may be earned in some areas of business.

Faculty

Denise Bushnell
Professor, Business
B.S., University of Alabama
M.B.A., Walden University

Tammy Drake
Assistant Professor, Business
B.A., Florida Atlantic University
M.B.A., Amberton University

Craig Hassler
Assistant Professor, Business
B.S., University of Southern California
J.D., University of San Francisco
M.S., Syracuse University

Kurt D. Heisinger
Professor, Business
B.S., California Polytechnic State University, San Luis Obispo
M.B.A., University of California, Davis
Certified Public Accountant
Certified Management Accountant

Todd A. Jensen
Professor, Business
B.S., California State University, Chico
M.B.A., University of Oregon
Certified Public Accountant

Christine D. Karau
Professor, Business
B.A., California State University, Sacramento
M.A., Chapman University, Orange
M.A., University of Nebraska, Lincoln

Katherine Knox
Assistant Professor, Business
B.S., California State University, Sacramento

M.B.A, Saint Mary's College of California
M.S., Golden Gate University
M.A.C, Golden Gate University

Melissa A. Prinzing
Professor, Business
B.S., California Polytechnic State University, San Luis Obispo
M.B.A., California Polytechnic State University, San Luis Obispo

Dennis Wingate
Professor, Business
B.S., University of California, Davis
M.B.A., Colorado State University

Accounting Advisory Committee

- Clark Pacific, West Sacramento, CA
- Paytech, Yuba City, CA
- State of CA Dept of Transportation, Sacramento, CA
- State of CA Franchise Tax Board, Sacramento, CA
- Teichert, Sacramento, CA
- Ballou Company, Durham, CA
- Coldwell Banker
- Dream Catcher Realty, Rocklin, CA
- Keller Williams Capital Valley Realty, Citrus Heights, CA
- Apple Education, Apple Inc., Rocklin and Roseville, CA
- BriarPatch Food Co-op, Grass Valley, CA
- Grass Valley Chamber of Commerce, Grass Valley, CA
- Truckee Downtown Merchants Association, Truckee, CA

Degrees/Certificates

Associate Degree for Transfer

- Business Administration for Transfer 2.0 (p. 97)

Associate Degrees

- Accounting (p. 97)
- Administrative Office Specialist (p. 98)
- General Business (p. 98)
- Innovation and Entrepreneurship (p. 98)
- Management (p. 99)
- Marketing (p. 99)
- Real Estate (p. 99)

Certificates of Achievement

- Administrative Office Specialist (p. 100)
- General Business (p. 100)
- Innovation and Entrepreneurship (p. 100)
- Management (p. 101)
- Marketing (p. 101)
- Real Estate (p. 101)

Skills Certificates

- Administrative Office Specialist (p. 102)
- Innovation and Entrepreneurship (p. 102)

Noncredit Certificates

• Entrepreneurship for Makers (p. 102)

Business Administration for Transfer 2.0
AS-T Degree
Business Administration 2.0 is designed to provide a broad knowledge of the functional areas of a business while developing managerial skills, communication skills, technical abilities and decision-making capability. Students will analyze and critically evaluate information to solve business problems, evaluate and use appropriate technology in the changing business environment, analyze ethical and social issues in business situations and make business and economic decisions that reflect professional responsibility.

The Associate in Science in Business Administration for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Business Administration or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Business Administration for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

• completion of all courses required for the major with grades of "C" or better; and
• (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
BUS 0201	Financial Accounting	3
BUS 0202	Financial Accounting II	3
BUS 0203	Managerial Accounting	3
BUS 0270	Business Law	3
or BUS 0271	Law and Society	
ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
STAT C1000	Introduction to Statistics	4
Select 3-4 units from the following:		**3-4**
MATH 0024	Modern Business Mathematics	
MATH 0042	Business Calculus	
Select 3 units from the following:		**3**
BUS 0260	Introduction to Business	

Code	Title	Units
BUS 0265	Business Communications	
Total Units		**28-29**

*Optional Recommended Electives:

Code	Title	Units
BUS 0250	Microsoft Applications for Business	
BUS 0252	Excel for Business Applications	
CSCI 0010	Introduction to Computing	
IT 0015	Business Information Systems	

*Many California State Universities prefer students to complete a computer course in addition to their major requirements in Business Administration. Students are strongly recommended to speak with a counselor to determine the appropriate computer course.

Accounting
AA or AS Degree
Successful completion of the curriculum in accounting prepares students for positions as accounting clerks, bookkeepers, payroll clerks or entry-level accountants. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

• Sierra College Associate Degree Requirements (Local General Education) (p. 305)
• (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0146	QuickBooks for Small Business Accounting	3
BUS 0201	Financial Accounting	3
BUS 0202	Financial Accounting II	3
BUS 0203	Managerial Accounting	3
BUS 0220	Introduction to Federal Income Tax for Individuals	3
BUS 0252	Excel for Business Applications	3
Select 3 units from the following:		**3**
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0130	Payroll: Essential Laws and Regulations	
BUS 0210	Ethical Studies in Business	
BUS 0215	Personal Finance	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0250	Microsoft Applications for Business	
BUS 0260	Introduction to Business	
BUS 0270	Business Law	
BUS 0277	Human Resource Management	
Total Units		**21**

Administrative Office Specialist
AA or AS Degree
(formerly Business Information Worker)

The Administrative Office Specialist program, provides career-oriented skills for professional office environment positions including an overview of current computer application and applying basic written business communication, essential soft skills, information technology and customer service skills. Students will learn the skills they need to start their career as an entry level employee in almost any industry. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0252	Excel for Business Applications	3
IT 0015	Business Information Systems	3
IT 0055	Database Management	3
IT 0065	Data Analytics/Visualization Using Tableau	3
IT 0060	Project Management Concepts and Software	3
Select 6 units from the following:		**6**
BUS 0261	Customer Service Skills	
BUS 0265	Business Communications	
or ENGL 0012	Writing in the Workplace	
BUS 0028	Independent Study	
or BUS 0095	Internship in Business	
or BUS 0159	Essential Skills - Soft Skills for a Changing World	
Total Units		**21**

General Business
AA or AS Degree
Successful completion of the curriculum in general business prepares students for entry-level positions in business. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0201	Financial Accounting	3
BUS 0260	Introduction to Business	3
BUS 0265	Business Communications	3
or BUS 0266	Introduction to Oral Communication	
BUS 0270	Business Law	3
BUS 0275	Management Concepts and Applications	3
or BUS 0277	Human Resource Management	
BUS 0280	Introduction to Marketing	3
Select 6 units from the following:		**6**
BUS 0028	Independent Study	
or BUS 0095 & BUS 0159	Internship in Business and Essential Skills - Soft Skills for a Changing World	
BUS 0210	Ethical Studies in Business	
BUS 0215	Personal Finance	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0250	Microsoft Applications for Business	
BUS 0273	International Business Practices	
BUS 0220	Introduction to Federal Income Tax for Individuals	
BUS 0276	Organizational Behavior and Human Relations	
BUS 0290	Real Estate Principles	
Total Units		**24**

Innovation and Entrepreneurship
AA or AS Degree
(formerly Business Entrepreneurship)

This degree provides foundational business skills for entrepreneurs in any discipline and is fully customizable to fit students' goals. Students receive classroom learning mixed with apprenticeships and internships to help them launch new ventures. The program offers a robust core of business classes for those interested in starting a business with an opportunity to focus on managing capital. Students completing this program will have a solid understanding of accounting practices for their enterprise. In addition, students will identify and design sustainable, socially-minded business opportunities. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0144	Accounting Fundamentals for Small Business Owners	

BUS 0241	Innovation Concepts for Starting a Small Business	3
BUS 0242	Entrepreneurship - Small Business Management	3
BUS 0265	Business Communications	3
or BUS 0266	Introduction to Oral Communication	
BUS 0280	Introduction to Marketing	3
Select 3 units from the following:		**3**
BUS 0146	QuickBooks for Small Business Accounting	
BUS 0215	Personal Finance	
BUS 0220	Introduction to Federal Income Tax for Individuals	
BUS 0260	Introduction to Business	
BUS 0261	Customer Service Skills	
BUS 0273	International Business Practices	
BUS 0277	Human Resource Management	
BUS 0284	Selling Dynamics	
IT 0060	Project Management Concepts and Software	
Select 3 units from the following:		**3**
BUS 0028	Independent Study (or other 0028 course)	
BUS 0095	Internship in Business (or other 0095 course)	
Total Units		**18**

Management

AA or AS Degree

The curriculum in Management prepares students for entry-level management positions. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0144	Accounting Fundamentals for Small Business Owners	3
BUS 0265	Business Communications	3
BUS 0275	Management Concepts and Applications	3
BUS 0277	Human Resource Management	3
IT 0060	Project Management Concepts and Software	3
Select 6 units from the following:		**6**
BI 0006	Introduction to Construction Management	
BUS 0028	Independent Study	

BUS 0095	Internship in Business	
BUS 0252	Excel for Business Applications	
BUS 0270	Business Law	
BUS 0276	Organizational Behavior and Human Relations	
BUS 0278	Negotiation, Conflict Resolution and Peacebuilding in the Workplace	
BUS 0279	The New Supervisor	
BUS 0280	Introduction to Marketing	
RECM 0020	Program Planning and Event Management	
Total Units		**21**

Marketing

AA or AS Degree

The curriculum in Marketing prepares students for positions as salespersons, business persons, merchandisers and marketing managers. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0280	Introduction to Marketing	3
BUS 0282	Digital Marketing Essentials	3
AAD 0070	Graphic Design II: Introduction to Digital Design	3
COMM 0073	Introduction to Public Relations	3
BUS 0284	Selling Dynamics	3
BUS 0265	Business Communications	3
Select 3 units from the following:		**3**
AAD 0085	Introduction to Web Design	
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0250	Microsoft Applications for Business	
BUS 0261	Customer Service Skills	
IT 0065	Data Analytics/Visualization Using Tableau	3
IT 0055	Database Management	3
Total Units		**27**

Real Estate

AA or AS Degree

The curriculum in Real Estate provides individuals with the technical knowledge and academic background to be competitive in the real estate industry. Successful coursework completion allows individuals to

sit for the California Real Estate Salesperson Examination. (For up-to-date licensing requirements refer to the California Department of Real Estate at http://dre.ca.gov.) Career opportunities in real estate and related occupations include real estate salesperson, loan processor, property manager, transaction coordinator and escrow/title officer. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BUS 0215	Personal Finance	3
BUS 0270	Business Law	3
or BUS 0292	Legal Aspects of Real Estate	
BUS 0280	Introduction to Marketing	3
BUS 0284	Selling Dynamics	3
BUS 0290	Real Estate Principles	3
BUS 0291	Real Estate Practice	3
Select 3 units from the following:		3
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0144	Accounting Fundamentals for Small Business Owners	
BUS 0201	Financial Accounting	
BUS 0260	Introduction to Business	
BUS 0265	Business Communications	
Total Units		**21**

Administrative Office Specialist
Certificate of Achievement
(formerly Business Information Worker)

The Administrative Office Specialist certificate of achievement provides career-oriented skills for professional office environment positions including an overview of current computer application and applying basic written business communication, essential soft skills, information technology and customer service skills. Students will learn the skills they need to start their career as an entry level employee in almost any industry. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0252	Excel for Business Applications	3
IT 0015	Business Information Systems	3
IT 0055	Database Management	3
IT 0060	Project Management Concepts and Software	3

IT 0065	Data Analytics/Visualization Using Tableau	3
Select 6 units from the following:		
BUS 0261	Customer Service Skills	3
BUS 0265	Business Communications	3
or ENGL 0012	Writing in the Workplace	
BUS 0028	Independent Study	
or BUS 0095 & BUS 0159	Internship in Business and Essential Skills - Soft Skills for a Changing World	
Total Units		**21**

General Business
Certificate of Achievement
Successful completion of the curriculum in general business prepares students for entry-level positions in business. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0144	Accounting Fundamentals for Small Business Owners	3
or BUS 0201	Financial Accounting I	
BUS 0260	Introduction to Business	3
BUS 0265	Business Communications	3
or BUS 0266	Introduction to Oral Communication	
BUS 0270	Business Law	3
BUS 0275	Management Concepts and Applications	3
or BUS 0277	Human Resource Management	
BUS 0280	Introduction to Marketing	3
Select 6 units from the following:		6
BUS 0028	Independent Study	
or BUS 0095 & BUS 0159	Internship in Business and Essential Skills - Soft Skills for a Changing World	
BUS 0210	Ethical Studies in Business	
BUS 0215	Personal Finance	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0250	Microsoft Applications for Business	
BUS 0273	International Business Practices	
BUS 0220	Introduction to Federal Income Tax for Individuals	
BUS 0276	Organizational Behavior and Human Relations	
BUS 0290	Real Estate Principles	
Total Units		**24**

Innovation and Entrepreneurship
Certificate of Achievement
(formerly Interdisciplinary Entrepreneurship)

This certificate provides foundational business skills for entrepreneurs in any discipline and is fully customizable to fit students' goals. Students receive classroom learning mixed with apprenticeships and internships

to help them launch new ventures. The program offers a robust core of business classes for those interested in starting a business with an opportunity to focus on managing capital. Students completing this program will have a solid understanding of accounting practices for their enterprise. In addition, students will identify and design sustainable, socially-minded business opportunities. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0144	Accounting Fundamentals for Small Business Owners	3
BUS 0241	Innovation Concepts for Starting a Small Business	3
BUS 0242	Entrepreneurship - Small Business Management	3
BUS 0265	Business Communications	3
or BUS 0266	Introduction to Oral Communication	
BUS 0280	Introduction to Marketing	3
or BUS 0282	Digital Marketing Essentials	
Select 3 units from the following:		**3**
BUS 0146	QuickBooks for Small Business Accounting	
BUS 0215	Personal Finance	
BUS 0241	Innovation Concepts for Starting a Small Business	
BUS 0260	Introduction to Business	
BUS 0261	Customer Service Skills	
BUS 0273	International Business Practices	
BUS 0277	Human Resource Management	
BUS 0284	Selling Dynamics	
IT 0060	Project Management Concepts and Software	
Select 3 units from the following:		**3**
BUS 0028	Independent Study (or other 0028 course)	
BUS 0095	Internship in Business (or other 0095 course)	
Total Units		**21**

Management
Certificate of Achievement

The curriculum in Management prepares students for entry-level management positions. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0144	Accounting Fundamentals for Small Business Owners	3
BUS 0265	Business Communications	3
BUS 0275	Management Concepts and Applications	3
BUS 0277	Human Resource Management	3

Code	Title	Units
IT 0060	Project Management Concepts and Software	3
Select 6 units from the following:		**6**
BI 0006	Introduction to Construction Management	
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0252	Excel for Business Applications	
BUS 0276	Organizational Behavior and Human Relations	
BUS 0270	Business Law	
BUS 0278	Negotiation, Conflict Resolution and Peacebuilding in the Workplace	
BUS 0279	The New Supervisor	
BUS 0280	Introduction to Marketing	
RECM 0020	Program Planning and Event Management	
Total Units		**21**

Marketing
Certificate of Achievement

The curriculum in Marketing prepares students for positions as salespersons, business persons, merchandisers and marketing managers. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0280	Introduction to Marketing	3
BUS 0282	Digital Marketing Essentials	3
BUS 0284	Selling Dynamics	3
AAD 0070	Graphic Design II: Introduction to Digital Design	3
BUS 0265	Business Communications	3
COMM 0073	Introduction to Public Relations	3
Select 3 units from the following:		**3**
AAD 0085	Introduction to Web Design	
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0242	Entrepreneurship - Small Business Management	
BUS 0250	Microsoft Applications for Business	
BUS 0261	Customer Service Skills	
IT 0055	Database Management	3
IT 0065	Data Analytics/Visualization Using Tableau	3
Total Units		**27**

Real Estate
Certificate of Achievement

The curriculum in Real Estate provides individuals with the technical knowledge and academic background to be competitive in the real estate industry. Successful coursework completion allows individuals to sit for the California Real Estate Salesperson Examination. (For up-to-date licensing requirements refer to the California Department of Real Estate

at http://dre.ca.gov.) Career opportunities in real estate and related occupations include real estate salesperson, loan processor, property manager, transaction coordinator and escrow/title officer. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0215	Personal Finance	3
BUS 0270	Business Law	3
or BUS 0292	Legal Aspects of Real Estate	
BUS 0280	Introduction to Marketing	3
BUS 0284	Selling Dynamics	3
BUS 0290	Real Estate Principles	3
BUS 0291	Real Estate Practice	3
Select 3 units from the following:		**3**
BUS 0028	Independent Study	
BUS 0095	Internship in Business	
BUS 0144	Accounting Fundamentals for Small Business Owners	
BUS 0201	Financial Accounting I	
BUS 0260	Introduction to Business	
BUS 0265	Business Communications	
Total Units		**21**

Administrative Office Specialist
Skills Certificate

The Administrative Office Specialist skills certificate prepares students for entry-level employment in an office. The emphasis is on practical, career-oriented skills for professional office environment positions including an overview of current computer application and applying basic written business communication, essential soft skills, and customer service skills. Students will learn the skills they need to start their career as an entry level employee in almost any industry, A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0250	Microsoft Applications for Business	3
BUS 0261	Customer Service Skills	3
BUS 0265	Business Communications	3
or ENGL 0012	Writing in the Workplace	
IT 0015	Business Information Systems	3
BUS 0159	Essential Skills - Soft Skills for a Changing World	2
Total Units		**14**

Innovation and Entrepreneurship
(formerly Interdisciplinary Business Entrepreneurship)

Skills Certificate

This skills certificate provides foundational business skills for entrepreneurs in any discipline and is fully customizable to fit students' goals. Students receive classroom learning mixed with apprenticeships and internships to help them launch new ventures. A skills certificate

is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0028	Independent Study (or other 0028 or 0095 course)	3
or BUS 0095	Internship in Business	
BUS 0241	Innovation Concepts for Starting a Small Business	3
BUS 0242	Entrepreneurship - Small Business Management	3
Total Units		**9**

Entrepreneurship for Makers
Noncredit Certificate of Completion

This certificate is for existing and potential entrepreneurs with a focus on makers. It provides a course of study that enables students, who are interested in pursuing or enhancing their "maker" talents, to develop critical entrepreneurial skills.

Required Courses

Code	Title	Units
BI 0804	Rapid Prototyping for Product Design	0
BUS 0841	Innovation Concepts for Starting a Small Business	0
BUS 0842	Entrepreneurship - Small Business Management	0
or BUS 0861	Customer Service Skills	
BUS 0859	Essential Skills - Soft Skills for a Changing World	0

Courses

Understanding course descriptions (p. 311)

BUS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

BUS 0095. Internship in Business
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

BUS 0130. Payroll: Essential Laws and Regulations
Units: 3
Formerly known as BUS 11
Advisory: Completion of BUS 144 or BUS 201 with grade of "C" or better
Hours: 54 lecture
Covers fundamental payroll laws and calculations. Topics include the Federal Labor Standards Act (FLSA) and related California laws including hours of work, regular and overtime pay, minimum wage, child labor laws, the Equal Pay Act, and taxable or non-taxable compensation. This class is part of a three-class series designed to prepare students for accounting careers and payroll industry certification. (not transferable)

BUS 0144. Accounting Fundamentals for Small Business Owners
Units: 3
Formerly known as BUS A
Hours: 54 lecture
An introductory course for students without previous study in bookkeeping or accounting. Provides practical skills for bookkeepers, account clerks, business owners, managers, administrative assistants and others needing practical knowledge of basic accounting. Includes basic accounting principles, payroll, sales and purchasing cycles. This course is not a prerequisite for BUS 201. (not transferable)

BUS 0146. QuickBooks for Small Business Accounting
Units: 3
Formerly known as BUS 8
Prerequisite: Completion of BUS 144 or BUS 201 or equivalent with grade of "C" or better
Hours: 54 lecture
Introduction to the principles and procedures of accrual accounting using an industry computer accounting program. Accounting applications include general ledger, purchases and accounts payable, sales and accounts receivable, payroll, merchandise inventory, and job costing. Includes completion of the accounting cycle, preparation of financial statements, and analysis of financial statements for service and retail organizations. (not transferable)

BUS 0159. Essential Skills - Soft Skills for a Changing World
Units: 2
Hours: 36 lecture
Interactive lessons designed to teach college students, adult learners, and workforce development representatives the transferable skills all modern workers need for success in our global economy. Topics include: Adaptability, Analysis/Solution Mindset, Collaboration, Communication, Digital Fluency, Entrepreneurial Mindset, Empathy, Resilience, Self-Awareness, Innovation and Creativity and Social/Diversity Awareness. (CSU)

BUS 0201. Financial Accounting I
Units: 3
Formerly known as BUS 1
Hours: 54 lecture
Principles of accounting and recording transactions within the accounting cycle. Students analyze financial statements, compare and contrast different forms of business entities, and discuss internal controls for entities to reduce the risk of fraud. Topics also include the preparation of a bank reconciliation, petty cash transactions, inventories, and cost of goods sold. (combined with BUS 202, C-ID ACCT 110) (CSU, UC)

BUS 0202. Financial Accounting II
Units: 3
Formerly known as BUS 2
Prerequisite: Completion of BUS 201 with grade of "C" or better
Hours: 54 lecture
Concepts of accounts receivable and how to account for bad debts and depreciation of assets. Study of current and long term liabilities and how to account for them, including accounts payable, payroll taxes, mortgages, and bonds. Covers the concept of equity including stocks and dividends. Financial ratio analysis tools also help students quickly assess the overall financial health of a business. (combined with BUS 201, C-ID ACCT 110) (CSU, UC)

BUS 0203. Managerial Accounting
Units: 3
Formerly known as BUS 3
Prerequisite: Completion of BUS 202 with grade of "C" or better
Hours: 54 lecture
Examination of how managers use accounting information in decision-making, planning, directing operations, and controlling operations. Focus on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations, and capital budgeting, cost control, and accounting for costs in manufacturing organizations. (C-ID ACCT 120) (CSU, UC)

BUS 0210. Ethical Studies in Business
Units: 3
Also known as PHIL 210
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore critical moral issues in the business realm, including diversity, equity, and inclusion, corporate responsibility, global economic impacts, environmental concerns, the distribution of wealth, advertising ethics, and digital privacy. This course analyzes these topics emphasizing fundamental moral philosophical theories and principles essential for understanding and resolving ethical challenges in today's business environment. (C-ID PHIL 120) (CSU, UC)

BUS 0215. Personal Finance
Units: 3
Formerly known as BUS 101
Prerequisite: Completion of Elementary Algebra or appropriate placement
Hours: 54 lecture
Practical approach to personal finance principles. Offers a basic understanding of spending, saving, budgeting, borrowing, lending and investing money; credit and debit cards, credit reports/scores, identity theft, insurance, compound interest, retirement, estate planning, and investments. The social, psychological, and economic issues related to financial planning will be explored in addition to the calculation and analysis of the financial impacts of their decisions. This course will emphasize the principles to develop economic decision-making skills. Students will create a personal financial plan, including goals, budgets and a savings plan. (CSU, UC)

BUS 0216. Investments
Units: 3
Formerly known as BUS 19
Advisory: Completion of BUS 201 and BUS 202 or BUS 215 with grade of "C" or better
Hours: 54 lecture
Introduction to investment opportunities, principles and practices. Includes investments in government and corporate securities, mutual funds, real estate, and tax advantaged securities. (CSU)

BUS 0220. Introduction to Federal Income Tax for Individuals
Units: 3
Hours: 54 lecture
Introduction to Federal Income Tax with emphasis on terminology, statutory materials, principles, and tax planning for Federal Individual Income Tax. Provides basic concepts of gross income, exclusions, adjusted gross income, deductions, exemptions, tax credits, and the calculation of tax to properly prepare a Form 1040 Individual Tax Return. (CSU)

BUS 0241. Innovation Concepts for Starting a Small Business
Units: 3
Formerly known as BUS 141
Hours: 54 lecture
Develops essential skills in evaluating, articulating, refining, and pitching a new product or service offering, either as a new business idea or as an additional offering in an existing business. Applies innovative concepts on how to plan and get started, personal and people skills, different business trades and industries, networking and opportunities, how to get and develop customers. (CSU)

BUS 0242. Entrepreneurship - Small Business Management
Units: 3
Formerly known as BUS 140
Hours: 54 lecture
Practical aspects of managing a small business. Focus will be on how to grow and manage an existing business (including independent contractors/freelancers and online businesses). Areas of coverage include: forms of ownership, franchising, and preparing a business plan; financing growth for a business; accounting and marketing fundamentals; managing human resources, technology, regulation, how to grow/scale, professional networking and insurance requirements. (CSU)

BUS 0250. Microsoft Applications for Business
Units: 3
Formerly known as IT 10
Hours: 72 (54 lecture, 18 laboratory)
An overview of business and academic use of software for word processing, spreadsheets, charting data, databases, and presentations. Using Microsoft software, managing files, using online tools, transmitting files via the Internet. Common computer hardware and software system concepts; impact of computers on society, networks and security. Course will use Microsoft Office 365 (2019 or higher) applications of Word, Excel, and PowerPoint. (CSU)

BUS 0252. Excel for Business Applications
Units: 3
Advisory: Completion of BUS 250 and SKDV 10 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Design and use of "what-if" analysis, data analytics and charting, financial functions, data and lookup tables, amortization schedules and templates. Includes working with multiple worksheets and workbooks, analyzing worksheet results, sorting and querying a worksheet database, using macros, and integrating software. (CSU)

BUS 0260. Introduction to Business
Units: 3
Formerly known as BUS 20
Hours: 54 lecture
A survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. and a global society. Demonstrates how these influences impact the primary areas of business including: organizational structure and design, leadership, human resource management, organized labor practices, marketing, organizational communication, technology, entrepreneurship, legal, accounting, financial practices, stocks and securities market. (C-ID BUS 110) (CSU, UC)

BUS 0261. Customer Service Skills
Units: 3
Formerly known as BUS 116
Hours: 54 lecture
Provides the student with understanding and knowledge of the importance of meeting customer needs in a service economy. Emphasis on developing specific skills and abilities critical to providing excellent customer service. Introduction to the concepts of internal and external customers, customer satisfaction and retention. Topics include communicating with customers, developing a positive attitude, handling complaints and ethical issues. (CSU)

BUS 0265. Business Communications
Units: 3
Formerly known as BUS 102
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Applies the principles of effective communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes planning, organizing, composing, and revising business documents using word processing software and artificial intelligence tools for written documents and presentation-graphics software to create and deliver professional-level oral reports. (C-ID BUS 115) (CSU)

BUS 0266. Introduction to Oral Communication
Units: 3
Formerly known as BUS 85
Advisory: Completion of ENGL N or equivalent with grade of "C" or better or placement by matriculation assessment process recommended
Hours: 54 lecture
Introduction to oral communication focuses on the basic foundations of interpersonal communication, small group communication, and public speaking. Students will be introduced to the breadth of the communication discipline. Examine and practice human communication principles and theories to develop critical thinking and communication competencies in a variety of contexts, including personal, professional, intercultural, computer-mediated, and family interactions. (C-ID COMM 115) (CSU, UC)

BUS 0270. Business Law
Units: 3
Hours: 54 lecture
Fundamental legal principles pertaining to business transactions. Introduction to the legal process. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes. (C-ID BUS 125) (CSU, UC)

BUS 0271. Law and Society
Units: 3
Formerly known as BUS 49
Hours: 54 lecture
Introduction to the law as an instrument of social and political control in society. Topics include sources of law and ethics, contracts, torts, agency, judicial and administrative processes, employment law, forms of business organizations, and domestic and international governmental regulations. (C-ID BUS 120) (CSU, UC)

BUS 0273. International Business Practices
Units: 3
Formerly known as BUS 55
Advisory: Eligibility for ENGL C1000 or equivalent
Hours: 54 lecture
Foundations for understanding the global marketplace and effective international business practices and procedures. Students identify/compare cultural differences and acquire skills necessary for interacting with foreign business professionals. Topics include: international trade, importing/exporting, currencies and exchange, ethics, international travel, technological impacts, and careers in international business. (CSU)

BUS 0275. Management Concepts and Applications
Units: 3
Formerly known as BUS 100
Hours: 54 lecture
Career focused course that explores management concepts. Includes the four management functions of planning, controlling, leading, and organizing, with emphasis on practical application of skills in communication, leadership, decision-making, staffing, motivation, delegation, and team-building to supervise others. Students are given opportunities to apply newly acquired ideas and techniques to workplace situations. (CSU)

BUS 0276. Organizational Behavior and Human Relations
Unit: 1.5
Formerly known as BUS 99
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 27 lecture
Closely examines concepts for motivating and coordinating people to manage change in organizations. The content and activities focus on the fundamentals of understanding, analyzing and changing behaviors of individuals and groups in a diverse work environment. Carefully examines the interactions among people within organizations to satisfy employee needs while achieving organizational objectives. (CSU)

BUS 0277. Human Resource Management
Units: 3
Formerly known as BUS 103
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A foundational management course for understanding how to manage human capital. The coursework includes a mix of practical application projects and case studies that demonstrate the importance of human resources to care for employees, drive innovation, and create a competitive advantage. An overview of the functional areas of Human Resources including recruitment and staffing, labor laws and legal compliance, compensation and benefits, training and development, workplace health, safety, and security and employee relations. (CSU)

BUS 0278. Negotiation, Conflict Resolution and Peacebuilding in the Workplace
Unit: 1.5
Hours: 27 lecture
Develop skills necessary for effective conflict resolution and confrontation management in the workplace. Explore resolution styles, and negotiation techniques, understand the nature, causes, and levels of conflict in the workplace. Learn practical techniques for resolving or managing conflict in positive ways; and apply cross-cultural approaches to promote workplace civility and peacebuilding. (CSU)

BUS 0279. The New Supervisor
Unit: 1.5
Hours: 27 lecture
Opportunities and challenges of becoming a new supervisor; contemporary roles of the supervisor; skills, functions, and activities of managing others; direction and guidance, ensuring compliance and quality, onboarding and training, monitoring performance, evaluating employees, and human relations. (CSU)

BUS 0280. Introduction to Marketing
Units: 3
Formerly known as BUS 120
Hours: 54 lecture
Explores the fundamental concepts of marketing that allow businesses to find, satisfy, and retain customers. Topics includes marketing research, identifying and selecting target markets, understanding consumer behavior, and making product, pricing, distribution, and promotion decisions. Students will also explore and assess the effectiveness of digital marketing tools including social media marketing, email marketing, and search engine marketing. (CSU)

BUS 0282. Digital Marketing Essentials
Units: 3
Formerly known as BUS 122
Advisory: Completion of BUS 280 and BUS 250 with grades of "C" or better or equivalent
Hours: 54 lecture
Exploration, analysis, and application of digital tools used by marketing professionals. Focus on technical skills and marketing expertise in the following areas: Social Media Marketing Platforms, SEO, Analytics tools, Basic Design Software, Content Creation, CRM Software, Advertising Platforms, E-commerce Platforms, and Digital Marketing Integration. Emphasis on basic marketing skill acquisition to effectively run a department of 1, or work as a marketing contractor or coordinator. (CSU)

BUS 0284. Selling Dynamics
Units: 3
Formerly known as BUS 124
Hours: 54 lecture
Demonstrates the importance of effective personal selling techniques, communication skills and organizational success. The course will examine the personal selling philosophy and career opportunities in professional consumer and business selling. Explore the presentation process, presentation strategies and trade shows. Techniques are illustrated in the steps of selling: approach, sales demonstration, overcoming objections, negotiation, closing, and servicing the sale. Examine the social, ethical, and legal issues of selling. This course is recommended for any student who wants to develop better personal and selling techniques for resume, job or promotion opportunities. (CSU)

BUS 0290. Real Estate Principles
Units: 3
Hours: 54 lecture
Introductory real estate course surveying general concepts, rules, principles, applications, and practice areas common to California real estate and real estate transactions; provides understanding, background, and terminology necessary and required for advanced study in other fundamental or specialized courses. Helpful to everyone seeking understanding of real estate related businesses or professions, seeking to qualify for license examination, and/or covering tested concepts and terminology. (CSU)

BUS 0291. Real Estate Practice
Units: 3
Advisory: Completion of BUS 290 with grade of "C" or better
Hours: 54 lecture
Fundamental Real Estate course that focuses on application and use of core real estate concepts in day-to-day operations, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics, while utilizing common, form documents (contractual, disclosure, etc.) consistent with professional and industry standards. This course will include interactive, participatory, and other in-class activities designed to address legally required topics, including regulatory and ethical practices. This course is helpful to everyone preparing for the real estate license examination, covering many additional and tested concepts with terminology. (CSU)

BUS 0292. Legal Aspects of Real Estate
Units: 3
Advisory: Completion of BUS 290 with grade of "C" or better
Hours: 54 lecture
Explores the practical aspects of California Law with a focus on its relevance to Real Estate and Real Estate Businesses. This includes involving all students in discussions on sources of law, government regulation, litigation process, dispute resolution alternatives, property ownership divisions, transfer, title, contracts, escrow, agency, disclosure duties and landlord/tenant relationships. Students will also consider common sources of liability risk related to common real estate transactions and how to manage them. This course is helpful to everyone with an interest in Real Estate related transactions, preparing for the Real Estate Licensing exam and is required for those intending to ultimately seek a Real Estate Broker's License. (CSU)

BUS 0809. Personal Investment and Retirement Planning for Retirees
Units: 0
Hours: 8 lecture
Course designed for older adults. Techniques are offered to manage investments during retirement; includes generating both income and growth for investments, fixed income, stocks, mutual funds, annuities. May be repeated. (noncredit)

BUS 0815. Personal Finance
Units: 0
Hours: 54 lecture
Practical approach to personal finance principles. Offers a basic understanding of spending, saving, budgeting, borrowing, lending and investing money; credit and debit cards, credit reports/scores, identity theft, insurance, compound interest, retirement, estate planning, and investments. The social, psychological, and economic issues related to financial planning will be explored in addition to the calculation and analysis of the financial impacts of their decisions. This course will emphasize the principles to develop economic decision-making skills. Students will create a personal financial plan, including goals, budgets and a savings plan. (pass/no pass grading) (noncredit)

BUS 0816. Investments
Units: 0
Advisory: Completion of BUS 201 and BUS 202 with grade of "C" or better or BUS 815 with grade of "Pass"
Hours: 54 lecture
Introduction to investment opportunities, principles and practices. Includes investments in government and corporate securities, mutual funds, real estate, and tax advantaged securities. (pass/no pass grading) (noncredit)

BUS 0841. Innovation Concepts for Starting a Small Business
Units: 0
Hours: 54 lecture
Develops essential skills in evaluating, articulating, refining, and pitching a new product or service offering, either as a new business idea or as an additional offering in an existing business. Applies innovative concepts on how to plan and get started, personal and people skills, different business trades and industries, networking and opportunities, how to get and develop customers. (pass/no pass grading) (noncredit)

BUS 0842. Entrepreneurship - Small Business Management
Units: 0
Hours: 54 lecture
Practical aspects of managing a small business. Focus will be on how to grow and manage an existing business (including independent contractors/freelancers and online businesses). Areas of coverage include: forms of ownership, franchising, and preparing a business plan; financing growth for a business; accounting and marketing fundamentals; managing human resources, technology, regulation, how to grow/scale, professional networking and insurance requirements. (pass/no pass grading) (noncredit)

BUS 0859. Essential Skills - Soft Skills for a Changing World
Units: 0
Formerly known as BUS 800
Hours: 36 lecture
Interactive lessons designed to teach college students, adult learners, and workforce development representatives the transferable skills all modern workers need for success in our global economy. Topics include: Adaptability, Analysis/Solution Mindset, Collaboration, Communication, Digital Fluency, Entrepreneurial Mindset, Empathy, Resilience, Self-Awareness, Innovation and Creativity, and Social/Diversity Awareness. (pass/no pass grading) (noncredit)

BUS 0861. Customer Service Skills
Units: 0
Hours: 54 lecture
Provides the student with understanding and knowledge of the importance of meeting customer needs in a service economy. Emphasis on developing specific skills and abilities critical to providing excellent customer service. Introduction to the concepts of internal and external customers, customer satisfaction and retention. Topics include communicating with customers, developing a positive attitude, handling complaints and ethical issues. (pass/no pass grading) (noncredit)

Program Student Learning Outcomes (PSLOs)

- Communicate effectively in written and oral forms.
- Demonstrate and develop critical and quantitative thinking skills and problem solving skills specific to business or transfer readiness (e.g., Accounting, Management, Marketing, Real Estate, Entrepreneurship, Computer Applications).

- Identify and apply ethical principles and responsible citizenship behavior.
- Demonstrate the effective use of technology to support business practices and engage in the workplace OR to support transfer readiness and preparation for a bachelor's degree.

Chemistry
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Chemistry program at Sierra College is designed to meet the needs of the diverse community of interests served by the community college. A full program of chemistry for the professional scientist is offered through analytical chemistry and a two-semester course in organic chemistry. A separate track is offered for nursing students that presents general inorganic, organic and biochemistry in a one-year sequence. The Chemistry Department also has a strong commitment to the student with no prior chemistry, or to those whose background is weak.

The entire program is taught with a strong emphasis on the laboratory. In the more advanced classes, students receive hands-on experience with a wide variety of instruments.

TRANSFER MAJOR REQUIREMENTS in Chemistry are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Chemistry are qualified for positions in research, industry, education, engineering and the allied medical fields.

Faculty

Daudi Bogonko
Assistant Professor, Chemistry
B.S., Fresno Pacific Univeristy
M.S., California Polytechnic State University, Pomona

Michael C. Brelle
Professor, Chemistry
B.S., California State University, Chico
Ph.D., University of California, Santa Cruz

Hannah Brinkman
Assistant Professor, Chemistry

Keri Clemens
Professor, Chemistry
B.S., University of California, Davis
Ph.D., University of California, Davis

Essmaiil Djamali
Assistant Professor, Chemistry

B.S., Barry University
Ph.D., University of California, San Diego

Jason R. Giuliani
Professor, Chemistry
B.S., California State University, Chico
Ph.D., University of California, Davis

Stuart D. Hay
Professor, Chemistry
B.S., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Susan L. Kurnett
Professor, Chemistry
B.A., University of California, Irvine
M.S., California State University, Sacramento

Yuting Lin
Assistant Professor, Chemistry
B.S., University of Washington
M.S., University of North Carolina at Chapel Hill

Rhiannon Porter
Professor, Chemistry
B.S., California Polytechnic State University, San Luis Obispo
Ph.D., University of California, Davis

Trevor Roberti
Professor, Chemistry
B.S., California State University, Long Beach
Ph.D., University of California, Santa Cruz

Mark F. Springsteel
Professor, Chemistry
B.S., California State University, Fullerton
Ph.D., University of California, Davis

Doug White
Assistant Professor, Chemistry
B.S., University of California, Davis: M.S., Oregon State University

Degrees/Certificates
Associate Degree for Transfer

Associate Degree

Chemistry for Transfer
AS-T Degree
This program provides students with a strong foundation in chemistry, covering the composition, structure, properties, and reactions of substances. Courses in general chemistry, organic chemistry, physics, and calculus are required. Upon completion of this degree, students will demonstrate proficiency in chemistry concepts and scientific communication, and apply critical thinking skills to problem solving.

The Associate in Science in Chemistry for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree

in chemistry, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Chemistry for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

NOTE: The California State University General Education Breadth pattern (CSU GE) is NOT an option for this degree.

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
CHEM 0012A	Organic Chemistry I	5
CHEM 0012B	Organic Chemistry II	5
PHYS 0205	Principles of Physics: Mechanics	4
PHYS 0205L	Principles of Physics Laboratory: Mechanics	1
PHYS 0210	Principles of Physics: Electricity and Magnetism	3
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	1
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
Total Units		**37-38**

Chemistry
AS Degree

The Chemistry major recognizes a concentration in the field of Chemistry. Successful completion of the curriculum in Chemistry and the associated electives prepare Chemistry students for transfer to four-year colleges or universities. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better,

complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
CHEM 0005	Chemistry - Quantitative Analysis	4
CHEM 0012A	Organic Chemistry I	5
CHEM 0012B	Organic Chemistry II	5
Total Units		**24-25**

Recommended Electives

Code	Title	Units
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	5
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	4
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics	4

UC Transfer Pathway (UCTP): Chemistry
AS-T Degree

The UC Transfer Pathway in Chemistry prepares students to transfer into the UC system to complete a bachelor's degree in Chemistry.

In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Students must fulfill the major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete the following general education pattern:

- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
CHEM 0001A	General Chemistry I	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
CHEM 0012A	Organic Chemistry I	5
CHEM 0012B	Organic Chemistry II	5
ENGL 0001A	Academic Reading and Writing	4
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
MATH 0033	Differential Equations and Linear Algebra	6
PHYS 0205	Principles of Physics: Mechanics	4
PHYS 0205L	Principles of Physics Laboratory: Mechanics	1
PHYS 0210	Principles of Physics: Electricity and Magnetism	3
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	1
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics	3
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics	1
Select 3 units from the following:		**3**
ENGL 0001B	Critical Thinking and Writing about Literature	
ENGL 0001C	Critical Thinking and Writing	
PHIL 0004	Introduction to Critical Thinking	
Select 3-4 units from the following:		**3-4**
AAD 0012	Visual Communication (Also COMM 0012)	
ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (Also PHOT 0010)	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
COMM 0006	Performance of Diverse Literatures	
COMM 0012	Visual Communication (Also AAD 0012)	
DFST 0003	American Sign Language III	
DFST 0004	American Sign Language IV	
DFST 0010	Introduction to Deaf Studies	
ENGL 0016	Introduction to LGBTIQ Literature	
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
ENGL 0027	Literature by Women	
ENGL 0029	Introduction to Drama as Literature	
ENGL 0030A	American Literature - Beginnings through Civil War	
ENGL 0030B	American Literature - Civil War to the Present	
ENGL 0032	Introduction to Poetry	
ENGL 0033	Introduction to Shakespeare (The Drama)	
ENGL 0034	Introduction to the Novel	
ENGL 0035	Introduction to the Short Story	
ENGL 0037	American Film Masterpieces	
ENGL 0038	International Film Masterpieces	
ENGL 0040	The Filmed Novel	
ENGL 0042	The Documentary Film	
ENGL 0045	Young Adult Literature	
ENGL 0046A	English Literature	
ENGL 0046B	English Literature	
ENGL 0047A	World Literature	
ENGL 0047B	World Literature	
ENGL 0048	Literature of Science Fiction	
ETHN 0050	Ethnic Images in Film	
FREN 0002	Elementary French - Level II	
FREN 0003	Intermediate French - Level I	
FREN 0004	Intermediate French - Level II	
HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
HIST 0017A	History of the United States to 1877	
HIST 0017B	History of the United States since 1865	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0022	American Military History	
HIST 0023	Chicano/Mexican American History	
HIST 0024	Russian History - 10th Century to Present	
HIST 0025	Native American History	
HIST 0027	Women in American History	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
HUM 0001	Introduction to Humanities I	
HUM 0002	Introduction to Humanities II	
HUM 0003	Introduction to Asian Humanities	
HUM 0005	Classical Roots of the Contemporary Western World	
HUM 0009	Introduction to Women, Gender and Religion (Also WMST 0003)	
HUM 0010	World Religions	

HUM 0015	Introduction to Mythology	
HUM 0017	Introduction to Atheism	
HUM 0020	Introduction to the Hebrew Bible	
HUM 0021	Introduction to the New Testament	
JPN 0002	Elementary Japanese - Level II	
LGBT 0002	Queer (LGBTIQ) Film History	
PHIL 0002	Introduction to Philosophy: Ethics	
PHIL 0006	Introduction to Philosophy: Knowledge and Reality	
PHIL 0010	Philosophy of Religion	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0020	History of Ancient Greek Philosophy	
PHIL 0021	History of Modern Philosophy	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0060	Introduction to Environmental Ethics	
PHIL 0065	Introduction to the Philosophy of Science	
MUS 0002	Music Appreciation	
MUS 0006A	Music Theory I	
MUS 0009A	Music Theory III	
MUS 0010	Music Fundamentals	
MUS 0011	Introduction and History of Jazz	
MUS 0012A	Survey of Music History and Literature to 1750	
MUS 0012B	Survey of Music History and Literature from 1750 to Present	
MUS 0013	Introduction to Music: History of Rock and Roll	
PHOT 0010	History of Photography	
SPAN 0003	Intermediate Spanish - Level I	
SPAN 0004	Intermediate Spanish - Level II	
THEA 0013	Introduction to Theatre	
THEA 0016A	Costume History	
WMST 0003	Introduction to Women, Gender and Religion (Also HUM 0009)	
Select 3-4 units from the following:		**3-4**
ADMJ 0050	Introduction to Administration of Justice	
AGRI 0198	Food, Society and the Environment	
AGRI 0215	Introduction to Agricultural Business and Economics	
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0005	Introduction to Archaeology	
ANTH 0006	Introduction to Linguistic Anthropology	
ANTH 0007	Native Peoples of California	
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	
ANTH 0014	Global Problems	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	

ARHI 0132	History of Women in Art	
BUS 0271	Law and Society	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
COMM 0010	Communication Theory, Methods, and Practice	
COMM 0070	Mass Communication: Media and Society	
ECON 0001A	Principles of Macroeconomics	
ECON 0001B	Principles of Microeconomics	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ETHN 0011	Introduction to Ethnic Studies	
ETHN 0020	Introduction to African American Studies	
ETHN 0045	Federal Indian Law and Policy	
ETHN 0050	Ethnic Images in Film	
ETHN 0053	Introduction to Native American Studies	
GEOG 0002	Cultural Geography	
GEOG 0003	Geography of California	
GEOG 0005	World Regional Geography	
HDEV 0001	Human Development Through the Lifespan	
HDEV 0004	Child, Family, and Community	
HDEV 0009	Child Growth and Development	
HDEV 0021	Psychology of Intimate Relationships and Family (Also PSYC 0110)	
HDEV 0022	The Family (Also SOC 0004)	
HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
HIST 0017A	History of the United States to 1877	
HIST 0017B	History of the United States since 1865	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0022	American Military History	
HIST 0023	Chicano/Mexican American History	
HIST 0024	Russian History - 10th Century to Present	
HIST 0025	Native American History	
HIST 0027	Women in American History	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
HUM 0009	Introduction to Women, Gender and Religion (Also WMST 0003)	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (Also WMST 0002)	
POLS 0001	American Government and Politics	

POLS 0002	Introduction to Comparative Government
POLS 0003	Introduction to International Relations
POLS 0004	Russian and East European Political Systems
POLS 0005	California Politics and Government
POLS 0007	Politics of the Developing World
POLS 0008	American Foreign Policy
POLS 0009	Politics of the Middle East
POLS 0012	Terrorism
POLS 0016	Introduction to Political Theory
POLS 0017	Introduction to Political Science Research Methods
POLS 0027	Women and Politics in a Global Society
PSYC 0100	Introduction to Psychology
PSYC 0103	Social Psychology
PSYC 0104	Developmental Psychology
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0107	Abnormal Psychology
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Intimate Relationships and Family (Also HDEV 0021)
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0160	Psychology and Film
PSYC 0180	Cultural Psychology
SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0004	The Family (Also HDEV 22)
SOC 0005	Sociology of Women's Health
SOC 0009	Introduction to Crime, Deviance, and Social Control
SOC 0010	Feminism and Social Action
SOC 0027	Sociology of Gender
SOC 0047	Introduction to Hip Hop and Social Justice (Also known as ETHN 0047)
SOC 0110	Introduction to Social Justice
WMST 0001	Introduction to Women's Studies
WMST 0002	Introduction to LGBT Studies/Queer Theory (Also LGBT 0001)
WMST 0003	Introduction to Women, Gender and Religion (Also HUM 0009)
WMST 0004	Feminism and Social Action (Also SOC 0010)

Select 3-5 units from the following:		**3-5**
AGRI 0156	Introduction to Plant Science (Also BIOL 0021)	
AGRI 0200	Introduction to Animal Science	
ANTH 0001	Biological Anthropology	
ANTH 0010	Introduction to Forensic Anthropology	
BIOL 0001	General Biology	
BIOL 0002	Botany	

BIOL 0003	General Zoology
BIOL 0004	Microbiology
BIOL 0005	Human Anatomy
BIOL 0006	Human Physiology
BIOL 0010	Introduction to Biology
BIOL 0011	Concepts of Biology
BIOL 0014	Natural History, Ecology and Conservation (Also ESS 0014)
BIOL 0015	Marine Biology
BIOL 0021	Introduction to Plant Science (Also AGRI 0156)
BIOL 0030	Introduction to Ornithology
BIOL 0035	Introduction to Entomology
BIOL 0055	General Human Anatomy and Physiology
BIOL 0056	Biology: A Human Perspective
ESS 0014	Natural History, Ecology and Conservation (Also BIOL 0014)
PSYC 0140	Introduction to Biopsychology

Select one of the following Language Other Than English options:		**0-5**
DFST 0001	American Sign Language I	
DFST 0002	American Sign Language II	
DFST 0003	American Sign Language III	
FREN 0001	Elementary French - Level I	
FREN 0002	Elementary French - Level II	
FREN 0003	Intermediate French - Level I	
FREN 0004	Intermediate French - Level II	
GER 0001	Elementary German - Level I	
GER 0002	Elementary German - Level II	
ITAL 0001	Elementary Italian - Level I	
ITAL 0002	Elementary Italian - Level II	
JPN 0001	Elementary Japanese - Level I	
JPN 0002	Elementary Japanese - Level II	
SPAN 0001	Elementary Spanish - Level I	
SPAN 0002	Elementary Spanish - Level II	
SPAN 0003	Intermediate Spanish - Level I	
SPAN 0004	Intermediate Spanish - Level II	

Completion of two years of the same foreign language in high school with grades of "C" or better.

Equivalent proficiency demonstrated by a specified minimum score on College Board SAT II tests in languages other than English; or a score of 3, 4, or 5 on any languages other than English College Board Advanced Placement (AP) Examinations; or a score of 5 or higher on any languages other than English International Baccalaureate (IB) Higher Level Examinations.

Completion of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English with grades of "C" or better.

Total Units	**67-77**

Courses

Understanding course descriptions (p. 311)

CHEM 0000A. Preparation for College Chemistry
Units: 4
Prerequisite: Completion of first year high school algebra or MATH A with grade(s) of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A nontransferable course primarily intended to prepare students for college general chemistry. Includes a brief review of math operations important in chemistry, metric system, formulas, equations, gas laws, and solutions through related lecture and laboratory exercises. (not transferable)

CHEM 0001A. General Chemistry I
Units: 5
Prerequisite: Completion of CHEM A or equivalent with grade of "C" or better; and completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent; and satisfactory score on the Chemistry Placement Examination
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Introduction to the general principles of chemistry with emphasis upon quantitative relationships. Properties of matter related whenever possible to present concepts of atomic structure and to the periodic table. Includes atomic structure, the mole concept, gas laws, stoichiometry, redox, states of matter, solutions, and an introduction to modern theories of chemical bonding through related lecture and laboratory exercises. Students enrolling in CHEM 1A after having completed CHEM 3A will lose credit for CHEM 3A. Note: Not open to students who have completed CHEM 3B. CHEM 1A/1B sequence may be started any semester. (C-ID CHEM 110) (combined with CHEM 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0001B. General Chemistry II
Units: 5
Prerequisite: Completion of CHEM 1A or 3B with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
A continuation of CHEM 1A. Includes chemical kinetics, equilibrium, acid-base theory, thermodynamics, electro-chemistry, modern theories of bonding, and nuclear chemistry through related lecture and laboratory exercises. Note: CHEM 1A/1B sequence may be started any semester. (combined with CHEM 1A or CHEM 3A/3B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0001X. Problem Solving for Chemistry 1A
Unit: 1
Prerequisite: Completion of CHEM A or equivalent with grade of "C" or better; and completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent; and satisfactory score on the Chemistry Placement Examination
Corequisite: Concurrent enrollment in CHEM 1A
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 18 lecture
Optional problem solving course to accompany CHEM 1A. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include atomic structure, the mole concept, gas laws, stoichiometry, redox, intermolecular forces, solid state chemistry, solution chemistry, and chemical bonding. (CSU)

CHEM 0001Y. Problem Solving for Chemistry 1B
Unit: 1
Prerequisite: Completion of CHEM 1A or 3B with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 1B
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 18 lecture
Optional problem solving course to accompany CHEM 1B. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include equilibrium, chemical kinetics, acid-base theory, thermodynamics, electro-chemistry, and nuclear chemistry. (CSU)

CHEM 0002A. Introduction to Chemistry I
Units: 5
Prerequisite: Completion of MATH A with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Advisory: Eligibility for ENGL C1000; completion of CHEM A with grade of "C" or better or equivalent; completion of MATH D with grade of "C" or better or equivalent
Hours: 126 (72 lecture, 54 laboratory)
Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture, and forestry programs (Inorganic Chemistry). An introduction to the fundamental principles of general inorganic chemistry through related lecture and laboratory exercises. (C-ID CHEM 101) (CSU, UC-with unit limitation)

CHEM 0002B. Introduction to Chemistry II
Units: 5
Prerequisite: Completion of CHEM 2A with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 126 (72 lecture, 54 laboratory)
Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture, and forestry programs (Organic and Biochemistry). A study of the major classes of organic compounds, including nomenclature structure, properties, and isomerism. Emphasizes the chemistry and metabolism of carbohydrates, lipids, and proteins, including nucleo-protein and enzymes through related lecture and laboratory exercises. (C-ID CHEM 102) (CSU, UC-with unit limitation)

CHEM 0002X. Problem Solving for Chemistry 2A
Unit: 1
Prerequisite: Completion of MATH A with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 2A
Advisory: Eligibility for ENGL C1000; completion of CHEM A with grade of "C" or better or equivalent; completion of MATH G with grade of "C" or better or equivalent
Hours: 18 lecture
Optional problem solving course to accompany CHEM 2A. Students use critical thinking and problem solving strategies to solve chemistry problems in topics that include atomic structure, the mole concept, gas laws, stoichiometry, redox, acid-base theory, equilibrium, nuclear chemistry, and chemical bonding. (CSU)

CHEM 0002Y. Problem Solving for Chemistry 2B
Unit: 1
Prerequisite: Completion of CHEM 2A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 2B
Advisory: Eligibility for ENGL C1000
Hours: 18 lecture
Optional problem solving course to accompany CHEM 2B. Students use critical thinking and problem solving strategies to solve organic and biochemistry problems. Both lecture and discussion groups utilized. (CSU)

CHEM 0003A. General Chemistry I - Part 1
Units: 3
Prerequisite: Completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 3X
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
The first semester of a two-semester course in general chemistry consisting of that material normally included in one semester of CHEM 1A. Topics covered include the mole concept, chemical nomenclature, gas laws, and stoichiometry. This sequence fulfills the prerequisite for CHEM 1B. Students enrolling in CHEM 1A after having taken CHEM 3A will lose credit for CHEM 3A. (combined with CHEM 3B, C-ID CHEM 110) (combined with CHEM 3B and 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0003B. General Chemistry I - Part 2
Units: 3
Prerequisite: Completion of CHEM 3A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 3Y
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
The second semester of a two-semester course in general chemistry consisting of that material normally included in one semester of CHEM 1A. Topics include atomic structure, states of matter, solutions, and chemical bonding. This sequence fulfills the prerequisite for CHEM 1B. (combined with CHEM 3A, C-ID CHEM 110) (combined with CHEM 3A and 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0003X. Problem Solving for Chemistry 3A
Units: 2
Prerequisite: Completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 3A
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 36 lecture
Problem solving course to accompany CHEM 3A. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include the mole concept, chemical nomenclature, gas laws, and stoichiometry. (pass/no pass grading) (not transferable)

CHEM 0003Y. Problem Solving for Chemistry 3B
Units: 2
Prerequisite: Completion of CHEM 3A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 3B
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 36 lecture
Problem solving course to accompany CHEM 3B. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include atomic structure, chemical bonding, states of matter, and solutions. (pass/no pass grading) (not transferable)

CHEM 0005. Chemistry - Quantitative Analysis
Units: 4
Prerequisite: Completion of CHEM 1B with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 144 (36 lecture, 108 laboratory)
Theory and techniques of quantitative chemical measurement, including gravimetric, volumetric, and introductory instrumental analysis. Required for all chemistry, chemical engineering, medicine, dentistry, veterinary medicine, and related majors. (CSU, UC)

CHEM 0012A. Organic Chemistry I
Units: 5
Prerequisite: Completion of CHEM 1B with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
An extensive course in the chemistry of the compounds of carbon, which emphasizes structure, kinetics, thermodynamics, spectroscopy, and synthesis. The laboratory provides direct experience with the reaction, synthesis, purification, identification, and characterization (IR, GC, TLC, bp, mp, chemical tests) of organic compounds. Discussions about the emerging field of "Green Chemistry" and performance of Green Chemistry experiments in the laboratory. Required for majors in chemistry as well as many other related fields. (C-ID CHEM 150; and, combined with CHEM 12B, C-ID CHEM 160S) (CSU, UC)

CHEM 0012B. Organic Chemistry II
Units: 5
Prerequisite: Completion of CHEM 12A with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Focuses on carbon based molecules and emphasizes structure, kinetics, thermodynamics, spectroscopy, and synthesis. Includes the emerging field of "Green Chemistry." Required for majors in Chemistry as well as many other related fields. (combined with CHEM 12A, C-ID CHEM 160S) (CSU, UC)

CHEM 0012X. Problem Solving for Chemistry 12A
Unit: 1
Corequisite: Concurrent enrollment in CHEM 12A
Hours: 18 lecture
Optional problem solving course to accompany CHEM 12A. Students use critical thinking and problem solving strategies to solve organic chemistry problems in topics that include nomenclature, alkane, alkene, alcohols, stereochemistry, spectroscopy, and Newman projections. (CSU)

CHEM 0012Y. Problem Solving for Chemistry 12B
Unit: 1
Corequisite: Concurrent enrollment in CHEM 12B
Hours: 18 lecture
Optional problem solving course to accompany CHEM 12B. Students use critical thinking and problem solving strategies to solve organic chemistry problems in topics that include nomenclature, alkynes, benzene, esters, amides, and amines. (CSU)

CHEM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

CHEM 0095. Internship in Chemistry
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

CHEM 0140. Survey of Chemistry and Physics
Units: 4
Also known as PHYS 140
Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 108 (54 lecture, 54 laboratory)
A conceptual introduction to the basic principles of physics and chemistry including matter, physical and chemical properties, forces and motion, energy, electromagnetism, electromagnetic waves, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors. (C-ID CHEM/PHYS 140) (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Demonstrate proficiency in chemistry concepts by scoring above the national median in the subject matter ACS (American Chemical Society) exams.
- Demonstrate proficiency in scientific communication.
- Apply critical thinking skills to problem solving.

Communication Studies
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The Communication Studies program focuses on how people use messages and symbols to generate meaning, critique and relate to one another across various contexts, cultures, channels and media. Providing inquiry into performances of the self and our communities, attending to issues of power and diversity and producing works of media and performance toward social justice; communication is a diverse discipline that serves as the basis for an ever-expanding understanding of how we all communicate.

Students may transfer as Communication Studies majors to the university level and/or use their education as introductory training for careers in social science, media, journalism, broadcasting, public information, media research, public opinion analysis, government and multimedia design.

Faculty

Julie D. Bruno
Professor, Communication Studies
B.A., San Francisco State University
M.A., San Francisco State University

Kimberly Cantrell
Professor, Communication Studies
B.A., San Diego State University

M.A., Arizona State University

Tara Franks
Professor, Communication Studies
B.A., California State University, Sacramento
M.A., San Diego State University
Ph.D., Arizona State University

Aryana Gooley-Carson
Assistant Professor, Communication Studies
B.A., California State University, Sacramento
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Jenifer R. Vernon
Professor, Communication Studies
B.A., The Evergreen State College
M.A., University of Oregon
Ph.D., University of California, San Diego

Degrees/Certificates

Associate Degrees for Transfer

- Communication Studies for Transfer 2.0 (p. 114)
- Journalism for Transfer (p. 115)

Communication Studies for Transfer 2.0
AA-T Degree

Communication Studies is a broadly based discipline that includes public speaking, mass and mediated communication, journalism, interpersonal, intercultural and group communication. The degree program allows students to critically analyze information and arguments, evaluate and create effective oral and written messages, write and deliver effective presentations and formulate communication solutions to problems in professional and personal contexts. This degree program will prepare students to transfer as Communication Studies majors to the university level as well as use their education as an introduction to careers in fields such as journalism, public relations, fundraising, law, broadcasting, mediation, human resources, customer relations, business management and education.

The Associate in Arts in Communication Studies for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Communication Studies or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Communication Studies for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
COMM C1000	Introduction to Public Speaking	3
COMM 0008	Interpersonal Communication	3
Select 9 units from the following:		**9**
COMM 0002	Argumentation and Rhetorical Criticism	
COMM 0003	Small Group Communication	
COMM 0007	Intercultural Communication	
COMM 0010	Communication Theory, Methods, and Practice	
COMM 0070	Mass Communication: Media and Society	
COMM 0073	Introduction to Public Relations	
Select 3 units from the following or unused course from the preceding area:		**3**
COMM 0005	Communication Foundations	
COMM 0006	Performance of Diverse Literatures	
COMM 0012	Visual Communication (also AAD 0012)	
COMM 0071	Newswriting and Reporting Techniques	
COMM 0072	Multimedia Reporting	
Total Units		**18**

Journalism for Transfer
AA-T Degree

The Associate in Arts in Journalism for Transfer (AA-T) degree program provides students with a strong foundation in Journalism by engaging, researching and producing works in a variety of accepted media, journalistic (AP) and performance-based styles.

The Associate in Arts in Journalism for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Journalism, Communication with a Journalism or Media Studies concentration, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Journalism for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and

- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
COMM 0070	Mass Communication: Media and Society	3
COMM 0071	Newswriting and Reporting Techniques	3
COMM 0078	Media Production I	3
Select 3 units from the following:		**3**
COMM 0012	Visual Communication (also AAD 0012)	
COMM 0072	Multimedia Reporting	
COMM 0079	Media Production II	
COMM 0073	Introduction to Public Relations	
Select 6-7 units from the following:		**6-7**
COMM C1000	Introduction to Public Speaking	
COMM 0002	Argumentation and Rhetorical Criticism	
COMM 0007	Intercultural Communication	
COMM 0010	Communication Theory, Methods, and Practice	
ENGL C1000	Academic Reading and Writing	
ENGL C1001	Critical Thinking and Writing	
POLS C1000	American Government and Politics	
STAT C1000	Introduction to Statistics	
or MATH 0011	Data Science for All	
or PSYC 0142	Introduction to Psychological Statistics	
or SOC 0015	Introduction to Statistics in Sociology	
Total Units		**18-19**

Courses

Understanding course descriptions (p. 311)

ATTENTION: Effective Fall 2025, the California Community College system will implement Common Course Numbering (CCN) per state mandate (AB1111). CCN courses will be common across all California Community Colleges. One course in Communication Studies has been included in CCN effective Fall 2025: COMM C1000 (formerly COMM 1).

COMM C1000. Introduction to Public Speaking
Units: 3
Formerly known as COMM 1
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
In this course, students learn and apply foundational rhetorical theories and techniques of public speaking in a multicultural democratic society. Students discover, develop, and critically analyze ideas in public discourse through research, reasoning, organization, composition, rhetorical sensitivity, creative expression, delivery to a live audience and evaluation of various types of speeches, including informative and persuasive speeches. (C-ID COMM 110) (CSU, UC-with unit limitation)

COMM 0002. Argumentation and Rhetorical Criticism
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Argumentation and rhetorical criticism focuses on methods of critical inquiry, advocacy, and argumentative writing through the written and oral traditions. Students will refine and strengthen critical thinking skills necessary to identify, analyze, and evaluate communicative messages and arguments in a variety of forms. Theoretical components will introduce students to perspectives toward argument analysis to develop and use basic criteria for identifying and evaluating effective, ethical arguments. Significant emphasis will be placed on the sophistication of writing assignments surrounding argument and rhetoric producing at least 5,000 words for the semester. (C-ID COMM 120) (CSU, UC)

COMM 0003. Small Group Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The study of small group communication through the analysis and evaluation of communication theories. Includes planning and completing small group projects and presentations to implement problem-solving methods, conflict management, and decision-making to develop effective communication skills. (C-ID COMM 140) (CSU, UC)

COMM 0005. Communication Foundations
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to communication theories, concepts, and effective communication skills for a variety of social contexts. Includes practical experiences and skill building in public speaking, interpersonal, intercultural, and small group settings. (C-ID COMM 115) (CSU, UC-with unit limitation)

COMM 0006. Performance of Diverse Literatures
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to performance studies and issues of diversity and social justice with works that bring these issues to light. Through the analysis, selection, and interpretation of genres such as poetry, oral history, prose, humor, and drama, students deepen their appreciation for literature, gain skill in performance, and insight into the role of voice, identity, and social justice in spoken arts. Focus on critiquing performance in context with key concepts from the field. Includes analysis of literature for themes, script writing, delivery, and the co-production of solo and/or group performance events. (C-ID COMM 170) (CSU, UC)

COMM 0007. Intercultural Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Explores communication between people of different cultural communities both globally and locally. Intercultural communication is grounded within historical, political, organizational and interpersonal contexts that shape our individual interactions. This course focuses on intercultural communication theories and research to help students analyze identity, perception, conflict, and how power, privilege and oppression are perpetuated in societies. (C-ID COMM 150) (CSU, UC)

COMM 0008. Interpersonal Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The study of interpersonal communication through an examination of theory and research findings. This course investigates the application of the principles of verbal and nonverbal transactions, key interpersonal concepts, and the dynamics of communication in personal and professional contexts. (C-ID COMM 130) (CSU, UC)

COMM 0010. Communication Theory, Methods, and Practice
Units: 3
Advisory: Eligibility for ENGL C1000; completion with grade of "C" or better or concurrent enrollment in COMM C1000 or 5
Hours: 54 lecture
The study of human communication through hands-on research methods that serve as specializations to the field of Communication Studies. This course explores human communication patterns through an examination of critical approaches, key concepts, and founding theories. Students engage in original inquiry, research and data gathering, analysis and discovery. (C-ID COMM 180) (CSU, UC)

COMM 0012. Visual Communication
Units: 3
Also known as AAD 12
Hours: 54 lecture
Study of visual communication including design principles, aesthetics, visual perception, non-verbal messages, relationship to verbal communication, audience analysis, mass media and persuasion. Historical overview of visual media as well as current trends and technology. (C-ID JOUR 170) (CSU, UC)

COMM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

COMM 0031A. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as AAD 79 and PHOT 79
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

COMM 0070. Mass Communication: Media and Society
Units: 3
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Focuses on the intersections of mass communication, media and society. This course examines the evolution of mass communication through modern media (modalities, content and trends), as well as the role of journalism in matters of ethics, perception, representation, and globalization. (C-ID JOUR 100) (CSU, UC)

COMM 0071. Newswriting and Reporting Techniques
Units: 3
Hours: 54 lecture
An introduction to gathering, synthesizing/organizing and writing news in journalistic style across multiple platforms. Students will report and write based on their original interviews, research, and storytelling to produce news stories. Experiences may include covering speeches, meetings and other events, writing under deadline and use of diversity and AP Style guides. Includes the role of journalists in democracies and relevant legal and ethical issues in reporting news for communities. (C-ID JOUR 110) (CSU, UC)

COMM 0072. Multimedia Reporting
Units: 3
Formerly known as COMM 30
Hours: 54 lecture
Introduction to multimedia storytelling with a journalism emphasis. Techniques explored include use of audio, video, photos, animation, and text to convey interactive news and feature stories through the Internet and other electronic media. The course also integrates skills in digital research, critical thinking, and synthesis. (C-ID JOUR 120) (CSU)

COMM 0078. Media Production I
Units: 3
Hours: 72 (36 lecture, 36 activity)
Media practicum that produces journalistic stories for campus, community, and online audiences. Students take on professional roles as various kinds of journalists and editors to report and publish work on digital platforms. Includes weekly news assignments, publication, and distribution through social media and audience engagement strategies. Practical experience in layout, writing or scripting news and feature stories, integrating original visuals and audio, multimedia journalism, and emerging mass communication technologies. Student-produced with student leadership. (C-ID JOUR 130) (CSU)

COMM 0079. Media Production II
Units: 3
Prerequisite: Completion of COMM 78 with grade of "C" or better
Advisory: Completion with grade of "C" or better, or concurrent enrollment in ENGL 1B or ENGL C1001
Hours: 72 (36 lecture, 36 activity)
Intermediate student journalism and media practicum that regularly produces a news or non-fiction feature product by and for students and distributed to a campus or community audience. Students take on leadership roles as editors and produce stories. Includes weekly news assignments that provide practical experience in design/layout, visual, online, multimedia journalism, emerging technologies, and performance. May include a variety of student media across multiple platforms, including print, broadcast, podcast, radio, and online. Student produced with student leadership. (C-ID JOUR 131) (CSU)

COMM 0095. Internship in Communication Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Perform in relation to individuals and audiences in a variety of communication contexts.
- Recognize and engage culture, power, and the diversity of human experience in communication.
- Critique symbolic and relational communicative processes through face-to-face and digital interaction.
- Produce works of media and performance toward social justice.

Computer Science
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Computer Science curriculum prepares students for careers in computer programming and for transfer to state colleges and universities for further study in computer sciences or information science. The curriculum offers students both the theory and practical experience for entry level positions of employment. There are computer courses for non-science majors as well as science majors. In all cases, students should consult with a counselor for specific transfer requirements.

The Computer Science curriculum meets the Data Processing Management Association mode curriculum for undergraduate computer information systems education.

Faculty

Barry E. Brown
Professor, Computer Science
B.S., University of California, San Diego
M.S., University of California, San Diego

Gita Faroughi
Professor, Computer Science
B.S., California State Uiniversity, Sacramento
M.S., California State Uiniversity, Sacramento

Degrees/Certificates

Associate Degree for Transfer

- Computer Science for Transfer (p. 118)

Associate Degrees

- Computer Science—Computer Science (p. 118)
- Computer Science—Management Information Systems (p. 119)

Certificate of Achievement

- Computer Science—Embedded Systems (p. 119)

Computer Science for Transfer
AS-T Degree

The Associate in Science in Computer Science for Transfer degree (AS-T) program provides students with a strong foundation in Computer Science. Upon completion of the program, students will demonstrate an ability to analyze problems and craft appropriate algorithmic solutions; apply knowledge of computing and mathematics appropriate to the discipline; interpret data, think critically and apply the scientific method; research and assess new ideas and information; and interpret technical information, as well as listen effectively to, communicate orally with and write clearly for a wide range of audiences.

The Associate in Science in Computer Science for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Computer Science or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Computer Science for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

NOTE: The California State University General Education Breadth pattern (CSU GE) is NOT an option for this degree.

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
CSCI 0012	Programming Concepts and Methodology I	3
CSCI 0013	Programming Concepts and Methodology II	3
CSCI 0026	Discrete Structures for Computer Science	3
CSCI 0039	Introduction to Computer Architecture and Assembly Language	3
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
PHYS 0205	Principles of Physics: Mechanics	4
PHYS 0205L	Principles of Physics Laboratory: Mechanics	1
PHYS 0210	Principles of Physics: Electricity and Magnetism	3
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	1
Total Units		**29**

Computer Science—Computer Science
AA or AS Degree

The curriculum in Computer Science prepares students for transfer to California State University, Sacramento and to many other university Computer Science degree programs. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
CSCI 0012	Programming Concepts and Methodology I	3
CSCI 0013	Programming Concepts and Methodology II	3
CSCI 0026	Discrete Structures for Computer Science	3
CSCI 0039	Introduction to Computer Architecture and Assembly Language	3
CSCI 0050	Introduction to Unix/Linux	3
CSCI 0062	Web Programming I	3
Select 9 units from the following:		**9**
CSCI 0014	Data Structures	
CSCI 0027	Visual Basic .NET Programming I	
CSCI 0046	System Programming with C	
CSCI 0052	Introduction to SQL	
CSCI 0054	Visual Basic .NET Programming II	

CSCI 0066	Object-Oriented Programming Using C++	
CSCI 0076A	Game Programming	
Total Units		**27**

Computer Science—Management Information Systems
AA or AS Degree

The curriculum in Management Information Systems has special emphasis on development, installation and maintenance of business software applications. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
CSCI 0010	Introduction to Computing	3
CSCI 0027	Visual Basic .NET Programming I	3
CSCI 0050	Introduction to Unix/Linux	3
CSCI 0052	Introduction to SQL	3
CSCI 0054	Visual Basic .NET Programming II	3
CSCI 0062	Web Programming I	3
IT 0105	Computer Network Fundamentals	3
Select 6 units from the following:		**6**
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0046	System Programming with C	
CSCI 0013	Programming Concepts and Methodology II	
Total Units		**27**

Computer Science—Embedded Systems
Certificate of Achievement

Successful completion of the curriculum in Embedded Systems prepares students for entry-level programming positions in companies which manufacture products that have embedded microprocessors. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
CSCI 0012	Programming Concepts and Methodology I	3
CSCI 0026	Discrete Structures for Computer Science	3
CSCI 0039	Introduction to Computer Architecture and Assembly Language	3
CSCI 0046	System Programming with C	3

MECH 0010	Fundamentals of Electronics	4
Total Units		**16**

Courses

Understanding course descriptions (p. 311)

CSCI 0010. Introduction to Computing
Units: 3
Advisory: Completion of MATH A with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Survey of computer science technologies and methods. Introduction to computer hardware and software, structured programming, operating system concepts, communications and social impacts of computer technology. Explore current and emerging topics such as robotics, computer security and artificial intelligence. (CSU, UC)

CSCI 0012. Programming Concepts and Methodology I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces the discipline of computer science using a high level language utilizing programming and practical hands-on problem solving. (C-ID COMP 122) (CSU, UC)

CSCI 0013. Programming Concepts and Methodology II
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms. (C-ID COMP 132) (CSU, UC)

CSCI 0014. Data Structures
Units: 3
Prerequisite: Completion of CSCI 66 with grade of "C" or better; and completion with grade of "C" or better, or concurrent enrollment in CSCI 26
Advisory: Completion of CSCI 13 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
A comprehensive introduction of data structures for computer science. Topics include: lists, stacks, trees, hash tables, and heaps. Associated algorithms are also covered: searching, sorting, traversal, path finding, spanning tree, and network flow. C++ is used as the implementation language. (CSU, UC)

CSCI 0026. Discrete Structures for Computer Science
Units: 3
Prerequisite: Completion of CSCI 12 and MATH 12 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the essential discrete structures used in Computer Science, with emphasis on their applications. Includes elementary formal logic and set theory, elementary combinatorics, recursive programming and algorithm analysis, Boolean algebra, digital logic, combinatorial circuits, graph theory, circuit design and minimization, and computer arithmetic. (C-ID COMP 152) (CSU, UC)

CSCI 0027. Visual Basic .NET Programming I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to methods and techniques of Visual Basic .NET programming. Includes coverage of user interface design, variables, decisions, menus, functions, object-oriented programming, looping, arrays, and printing. Designed to bring students up to the necessary skill and knowledge level for an intermediate-level programming course. (CSU)

CSCI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

CSCI 0039. Introduction to Computer Architecture and Assembly Language
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Assembly language programming techniques and introductory computer architecture concepts. Topics include addressing modes; pseudo operations; stack processing; subroutine linkage; arithmetic and logical operations; input and output; digital logic. Programs are designed, coded, tested, and debugged. (C-ID COMP 142) (CSU, UC)

CSCI 0046. System Programming with C
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion of CSCI 50 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the C language and system programming on a Unix-like operating system. Topics include the standard C library, memory allocation, file I/O, permissions, system calls, networking, and process management. Development in a Unix environment will cover editors, shell scripting, makefiles, source code control, and debugging. (CSU, UC)

CSCI 0050. Introduction to Unix/Linux
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
An introduction to the Unix and Linux operating systems with an emphasis on system programming. Topics include the filesystem, permissions, regular expressions, processes, networking, basic system administration, and shell scripting. Extensive hands-on experience using the command line interface. (CSU, UC)

CSCI 0052. Introduction to SQL
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Survey of SQL (Structured Query Language). Includes database models, database design, table and view definition, transaction and data manipulation, queries and reports, data integrity, stored procedures, triggers, recovery and security. Hands-on experience using a popular SQL database. (CSU)

CSCI 0054. Visual Basic .NET Programming II
Units: 3
Prerequisite: Completion of CSCI 27 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Intermediate Visual Basic .NET programming. Includes coverage of multitier applications, database applications, databases using related tables, database updates, using Web forms, Web forms database and updates, XML Web services, and writing database reports using Crystal Reports. (CSU, UC)

CSCI 0062. Web Programming I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to methods and techniques of Web programming. Includes coverage of HyperText Markup Language (HTML), Cascading Style Sheets (CSS), and Extensible HyperText Markup Language (XHTML). Designed to bring students up to the necessary skill and knowledge level for an intermediate Web programming course. (CSU)

CSCI 0066. Object-Oriented Programming Using C++
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion of CSCI 46 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
An introduction to the concepts of object-oriented programming and the application of the C++ language. Extensive programming practice using C++ as the vehicle toward modular, reusable object-oriented code. (CSU, UC)

CSCI 0076A. Game Programming
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion with grade of "C" or better or concurrent enrollment in CSCI 13
Hours: 72 (54 lecture, 18 laboratory)
Explore the algorithms, data structure, and techniques used to program computer video games. Emphasis on arcade-style video games (new and classic) written in Java. Topics include 2D animation, sprites, interaction, music, and sound. Underlying issues include graphical user interface programming, multi-threaded applications, realtime programming, use of sophisticated APIs, and societal impacts of computer gaming. (CSU, UC)

CSCI 0095. Internship in Computer Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Engage in continuous learning as well as research and assess new ideas and information to provide the capabilities for lifelong learning.
- Read and interpret technical information, as well as listen effectively to, communicate orally with, and write clearly for a wide range of audiences.
- Analyze a problem and craft an appropriate algorithmic solution.

- Apply knowledge of computing and mathematics appropriate to the discipline.
- Interpret data, think critically and apply the scientific method.

Deaf Studies

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The Deaf Studies curriculum provides students with the knowledge and skills of American Sign Language (ASL). It also focuses on the uniqueness of ASL as a language, of the Deaf culture, the history of the Deaf Community, of Deaf educational practices and the Interpreting profession. The curriculum is designed to assist students in determining which area of Deaf Studies to enter or to aide them in the area they are currently pursuing.

Degrees/Certificates

Associate Degree

Deaf Studies - American Sign Language (p. 121)

Certificate of Achievement

Deaf Studies - American Sign Language (p. 121)

Deaf Studies—American Sign Language
AA Degree

The Deaf Studies—American Sign Language degree program is designed to prepare students to transfer to a four-year baccalaureate program as a Deaf Studies major. The degree and certificate program helps develop Sign Language skills fluent enough to communicate as skilled signers for personal or work-related use. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
DFST 0001	American Sign Language I	4
DFST 0002	American Sign Language II	4
DFST 0003	American Sign Language III	4
Select 7 units from the following:		**7**
DFST 0004	American Sign Language IV	
DFST 0010	Introduction to Deaf Studies	
DFST 0028	Independent Study [1]	
DFST 0095	Internship in Deaf Studies [1]	
Total Units		**19**

[1]

A maximum of 4 units may be taken from DFST 0028 and DFST 0095.

Recommended Electives

Code	Title	Units
ANTH 0002	Cultural Anthropology	3
BIOL 0055	General Human Anatomy and Physiology	4
COMM 0003	Small Group Communication	3
COMM 0007	Intercultural Communication	3
COMM 0010	Communication Theory, Methods, and Practice	3
HDEV 0001	Human Development Through the Lifespan	3
HDEV 0004	Child, Family, and Community	3
HED 0002	Health Education	3
PSYC C1000	Introduction to Psychology	3
PSYC 0103	Social Psychology	3
PSYC 0104	Developmental Psychology	3
SOC 0001	Introduction to Sociology	3
THEA 0010A	Acting I	3
THEA 0013	Introduction to Theatre	3

Deaf Studies—American Sign Language
Certificate of Achievement

The Deaf Studies—American Sign Language degree program is designed to prepare students to transfer to a four-year baccalaureate program as a Deaf Studies major. The degree and certificate program helps develop Sign Language skills fluent enough to communicate as skilled signers for personal or work-related use. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
DFST 0001	American Sign Language I	4
DFST 0002	American Sign Language II	4
DFST 0003	American Sign Language III	4
Select 7 units from the following:		**7**
DFST 0004	American Sign Language IV	
DFST 0010	Introduction to Deaf Studies	
DFST 0028	Independent Study [1]	
DFST 0095	Internship in Deaf Studies [1]	
Total Units		**19**

1

A maximum of 4 units may be taken from DFST 0028 and DFST 0095.

Recommended Electives

Code	Title	Units
ANTH 0002	Cultural Anthropology	3
BIOL 0055	General Human Anatomy and Physiology	4
COMM 0003	Small Group Communication	3
COMM 0007	Intercultural Communication	3
COMM 0010	Communication Theory, Methods, and Practice	3
HDEV 0001	Human Development Through the Lifespan	3
HDEV 0004	Child, Family, and Community	3
HED 0002	Health Education	3
PSYC C1000	Introduction to Psychology	3
PSYC 0103	Social Psychology	3
PSYC 0104	Developmental Psychology	3
SOC 0001	Introduction to Sociology	3
THEA 0010A	Acting I	3
THEA 0013	Introduction to Theatre	3

Courses

Understanding course descriptions (p. 311)

DFST 0001. American Sign Language I
Units: 4
Hours: 72 lecture
Introduction to the fundamental principles of American Sign Language (ASL). Preparation for visual/gestural communication including basic information relating to Deaf culture, intensive work on comprehension skills and grammatical structures. (CSU, UC)

DFST 0002. American Sign Language II
Units: 4
Prerequisite: Completion of DFST 1 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language I (ASL I). Designed for students who wish to enhance their proficiency in ASL usage and stresses continued development of basic conversational skills with emphasis on vocabulary and expressive skills. (CSU, UC)

DFST 0003. American Sign Language III
Units: 4
Prerequisite: Completion of DFST 2 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language II (ASL II). Shifts from comprehension to production of ASL. Further study of vocabulary and grammatical patterns. Continues to develop ASL competencies in numerous conversational settings. Brings ASL fluency to a point of self-generated ASL for the purpose of furthering language use in ASL. (CSU, UC)

DFST 0004. American Sign Language IV
Units: 4
Prerequisite: Completion of DFST 3 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language III. Advanced study of ASL grammar. Further development and refinements of ASL skills and fluency. Intensive work on expressive and receptive skills. Further study of Deaf cultural issues. (CSU, UC)

DFST 0010. Introduction to Deaf Studies
Units: 3
Hours: 54 lecture
Introduces topics central to the Deaf and Deaf community, including audiology, interpreting, education, culture, history, linguistics, sociology, and psychology. Designed to introduce basic information regarding the American Deaf experience in the United States: Deaf Community, Deaf Culture and American Sign Language. (CSU, UC)

DFST 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

DFST 0095. Internship in Deaf Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Analyze receptive skills in ASL and draw reasonable inferences from observations.
- Cultivate an openness to new ideas about Deaf awareness and cultural appreciation by reading and examining new ideas from ASL material.
- Create a story or dialogue in ASL using correct grammar and syntax at the appropriate signing level.
- Select appropriate signs demonstrating expressive skills in ASL by using correct grammar and syntax.
- Recognize, understand and apply the variations/etiquettes of Deaf Culture norms.

Earth Science
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

These courses give a general educational background of the earth's geology, atmosphere, oceans and its place in time and space.

TRANSFER MAJOR REQUIREMENTS are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in the disciplines in Earth Science are qualified include teaching, research, industry, regional planning, environmental analysis and others in the minerals-fuels industries.

Faculty

Holly Dodson
Professor, Earth Science
B.S., University of California, Riverside
M.A., University of California, Santa Barbara

Allison Jones
Assistant Professor, Earth Science
A.S., Diablo Valley College
B.A., University of The Pacific
M.S., University of Wisconsin, Madison

Degrees/Certificates

Associate Degree for Transfer

- Geology for Transfer (p. 123)

Associate Degree

- Geology (p. 124)

Geology for Transfer
AS-T Degree

Geology investigates our planet Earth from diverse perspectives, spanning from the smaller scale study of its building blocks (minerals) to the larger scale study of its dynamism (Theory of Plate Tectonics), as well as its history and the relationship between the physical environment and the evolution of life. This is accomplished by viewing the planet as a system, where there are interactions between the lithosphere, the atmosphere, the hydrosphere and the biosphere. Within this context, students develop strong critical thinking, problem solving, communication and technical skills to work in a relatively large set of career fields beyond that of Geology, such as Hydrology, Geophysics, Oceanography, Meteorology and Environmental Science. The required curricular sequence also provides the necessary skills in the physical sciences and mathematics required for junior standing at baccalaureate institutions. Thus, future Earth Scientists acquire both a global and sequential way to approach topics, with an emphasis on the interdisciplinary nature of the field and also enhance their expertise through hands-on laboratory work, readying themselves for the applied nature of the workforce (industry, consulting and government agencies).

The Associate in Science in Geology for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Geology or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Geology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ESCI 0001	Physical Geology	3
ESCI 0001L	Physical Geology Laboratory	1
ESCI 0003	Historical Geology	3
ESCI 0003L	Historical Geology Laboratory	1
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
Total Units		**26-27**

Additional Recommended Preparation
While the following courses are not required for this degree, completion of these courses will better prepare students for upper-division geology courses.

Code	Title	Units
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	5
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	4

| PHYS 0215
& 0215L | Principles of Physics: Heat, Waves and
Modern Physics
and Principles of Physics Laboratory:
Heat, Waves and Modern Physics | 4 |

Geology
AS Degree

A two-year associate degree in Geology prepares students to work in entry-level technical positions in the geological profession, including such fields as environmental assessment and mitigation, hydrology, mining, agronomy, conservation and interpretation. Additional professional opportunities are available for students with advanced degrees. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ESCI 0001	Physical Geology	3
ESCI 0001L	Physical Geology Laboratory	1
ESCI 0003	Historical Geology	3
ESCI 0003L	Historical Geology Laboratory	1
Select 1-2 units from the following: [1]		**1-2**
ESCI 0054A	Sierra Nevada and Western Basin and Range Provinces	
ESCI 0054B	Great Valley and Coast Range Provinces	
ESCI 0054C	Great Valley, Coast Ranges, and Sutter Buttes	
ESCI 0054D	Western Sierra Nevada and the Mother Lode	
ESCI 0054E	Major Rock Units of the Northern Sierra	
ESCI 0055C	Weekend Field Geology - Point Reyes	
ESCI 0055F	Weekend Field Geology	
ESCI 0056F	Field Geology of Western North America	
Select 4-6 units from the following:		**4-6**
CHEM 0001A	General Chemistry I (OR)	
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
PHYS 0010 & 0010L	Basic Concepts in Physics and Basic Concepts in Physics Laboratory	
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	

Select 6-8 units from the following:		**6-8**
ASTR 0010	Elementary Astronomy	
CHEM 0001B	General Chemistry II	
ESCI 0002	California Geology	
ESCI 0015	Introduction to Oceanography	
ESCI 0015L	Introduction to Oceanography Laboratory	
ESCI 0050	Geology of National Parks and Monuments	
ESCI 0054A	Sierra Nevada and Western Basin and Range Provinces [1]	
ESCI 0054B	Great Valley and Coast Range Provinces [1]	
ESCI 0054C	Great Valley, Coast Ranges, and Sutter Buttes [1]	
ESCI 0054D	Western Sierra Nevada and the Mother Lode [1]	
ESCI 0054E	Major Rock Units of the Northern Sierra [1]	
ESCI 0055A	Weekend Field Geology - Eastern Sierra [1]	
ESCI 0055B	Weekend Field Geology - Yosemite [1]	
ESCI 0055C	Weekend Field Geology - Point Reyes [1]	
ESCI 0055D	Weekend Field Geology - Southern Coast Range [1]	
ESCI 0055E	Weekend Geology and Volcanoes of Northeastern California [1]	
ESCI 0056A	Field Geology of Western North America - Death Valley [1]	
ESCI 0056B	Field Geology of Western North America - Geology of Utah [1]	
ESCI 0056C	Field Geology of Western North America - Western Deserts [1]	
ESCI 0056D	Field Geology in the Sierra Nevada [1]	
ESCI 0056E	Geology of the Cascade Volcanoes [1]	
ESCI 0056G	Coastal Geology [1]	
ESCI 0055F	Weekend Field Geology [1]	
ESCI 0056F	Field Geology of Western North America [1]	
GEOG 0004	Weather and Climate	
GEOG 0090	Introduction to Geographic Information Systems (GIS)	
MATH 0029	Pre-Calculus Mathematics	
MATH 0030	Analytical Geometry and Calculus I	
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics	
Total Units		**19-24**

1

Only 3 units total may be taken from the field studies courses.

Courses

Understanding course descriptions (p. 311)

ESCI 0001. Physical Geology
Units: 3
Formerly known as GEOL 1
Prerequisite: Eligibility for ENGL C1000
Advisory: Concurrent enrollment in ESCI 1L
Hours: 54 lecture
Dynamic nature of earth's geologic processes. Earthquakes, volcanoes, mountain building, landslides, rocks, minerals, fossils, erosion, glaciation, deserts, shorelines, groundwater, and plate tectonics. (C-ID GEOL 100) (CSU, UC)

ESCI 0001L. Physical Geology Laboratory
Unit: 1
Formerly known as GEOL 1L
Prerequisite: Completion of or concurrent enrollment in ESCI 1
Hours: 54 laboratory
Minerals, rocks, fossils, aerial photos, topographic and geologic maps. Field trip(s) may be required during regular lab time. (C-ID GEOL 100L) (CSU, UC)

ESCI 0002. California Geology
Units: 3
Formerly known as GEOL 2
Advisory: Completion of ESCI 10 with grade of "C" or better
Hours: 54 lecture
An introduction to the geology of California, including tectonic processes, geologic structures, physiographic provinces, local rocks and minerals, landforms, natural resources, geologic history, and natural hazards in the state. (C-ID GEOL 200) (CSU, UC)

ESCI 0003. Historical Geology
Units: 3
Formerly known as GEOL 3
Corequisite: Concurrent enrollment in ESCI 3L
Advisory: Completion of ESCI 1 and 1L with grades of "C" or better
Hours: 54 lecture
An introduction to Earth's history and the life it supports. Includes geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin, and the processes that have influenced paleogeography during the past 4.6 billion years. Designed for Geology majors. (C-ID GEOL 110) (CSU, UC)

ESCI 0003L. Historical Geology Laboratory
Unit: 1
Formerly known as GEOL 3L
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESCI 3
Advisory: Completion of ESCI 1 and ESCI 1L
Hours: 54 laboratory
Hands-on learning in the topics of Earth history. Includes geologic dating, fossils, plate tectonics, minerals and rocks, biological evolution, the planet's origin, and the processes that have influenced paleogeography and life history during the past 4.6 billion years. (C-ID GEOL 110L) (CSU, UC)

ESCI 0007. Energy, Environment, and Climate
Units: 3
Also known as ESS 7
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the nature of energy and the environmental impact of its societal use in the context of Earth's record of changing climate. Explores current global climate change due to post-1750 greenhouse gas emissions and strategies for mitigation and adaptation to changing climate predictions, emphasizing future alternative energy sources. Designed for students majoring in areas related to the environmental sciences and/or those interested in developing a substantiated understanding of the role played by citizens in ensuring a healthy environment for future generations. (CSU, UC)

ESCI 0010. Introduction to Earth Science
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to concepts of geology, oceanography, meteorology, and astronomy for science or non-science majors. (C-ID GEOL 120) (CSU, UC)

ESCI 0010L. Introduction to Earth Science Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESCI 10
Hours: 54 laboratory
Exploration of the solid Earth, its atmosphere, hydrosphere, and place in the solar system. Learning through investigation and systematic laboratory procedures, focused on the physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather and climate. Field trip(s) may be required during regular lab time. (C-ID GEOL 120L) (CSU, UC)

ESCI 0015. Introduction to Oceanography
Units: 3
Advisory: Eligibility for ENGL C1000 or equivalent
Hours: 54 lecture
Physical, chemical, and biological aspects of our ocean environment with emphasis on geologic processes. (CSU, UC)

ESCI 0015L. Introduction to Oceanography Laboratory
Unit: 1
Prerequisite: Completion of or concurrent enrollment in ESCI 15
Hours: 54 laboratory
Exploration of the ocean environment, including physical, chemical and biological aspects. Learning through investigation and systematic laboratory procedures. (CSU, UC)

ESCI 0016G. Field Paleontology and Ancient Environments
Units: 1-2
Also known as BIOL 16G
Hours: 30 (12 lecture, 18 laboratory) per unit
Investigations into the ecology of environments in the geologic past through field work at fossil sites. Comparisons and contrasts made between ancient (fossil) communities and the current (living) communities of selected study sites. Differences and similarities between the plants and animals used as evidence to reconstruct ancient ecological communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

ESCI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ESCI 0050. Geology of National Parks and Monuments
Units: 3
Formerly known as GEOL 50
Hours: 54 lecture
Investigation of geology and geologic history in the formation of North American national parks and monuments including the Grand Canyon, Bryce, Zion, and Yosemite. (CSU, UC)

ESCI 0054A. Sierra Nevada and Western Basin and Range Provinces
Units: 0.5
Formerly known as GEOL 51A
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Sierra Nevada and Western Basin and Range Provinces. Sites along I-80 and old highway 40 are examined. (CSU)

ESCI 0054B. Great Valley and Coast Range Provinces
Units: 0.5
Formerly known as GEOL 51B
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Great Valley and the Coast Range Provinces. Sites along I-80, the Russian River, the Pacific Coast, and the San Andreas Fault are examined. (CSU)

ESCI 0054C. Great Valley, Coast Ranges, and Sutter Buttes
Units: 0.5
Formerly known as GEOL 51C
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Great Valley, the Coast Ranges, and the Sutter Buttes. Sites west from Roseville through Woodland and Capay Valley to Clear Lake, the Central Sacramento Valley, and the Sutter Buttes are examined. (CSU)

ESCI 0054D. Western Sierra Nevada and the Mother Lode
Units: 0.5
Formerly known as GEOL 51D
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Western Sierra Nevada and the Mother Lode. Sites along Highway 49 are examined. Entrance and transportation fees may be required. (CSU)

ESCI 0054E. Major Rock Units of the Northern Sierra
Units: 0.5
Formerly known as GEOL 51E
Hours: 9 lecture
Field lecture course designed to teach students the geology of major rock units of the Northern Sierra Nevada. Moderate day hike is involved. Entrance fees may be required. (CSU)

ESCI 0055A. Weekend Field Geology - Eastern Sierra
Unit: 1
Hours: 18 lecture
Weekend field trip to the eastern Sierra Nevada. A 1 hour and 50 minute pre-session will be held prior to the trip. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0055B. Weekend Field Geology - Yosemite
Unit: 1
Hours: 18 lecture
Weekend field trip to Yosemite covering the origin, evolution, and geology of Yosemite National Park and surrounding areas. A 1 hour and 50 minute pre-session will be held prior to the trip. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0055C. Weekend Field Geology - Point Reyes
Unit: 1
Hours: 18 lecture
Exploration of the natural history of the Point Reyes area, emphasizing its geologic history and geomorphology. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0055D. Weekend Field Geology - Southern Coast Range
Unit: 1
Hours: 18 lecture
Exploration of the natural history of southern Coast Ranges. May include national parks (eg. Carrizo Plain, Pinnacles) and selected areas of the San Andreas Fault. Some hiking required. Camping and/or park entrance fees may be required. A 1 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0055E. Weekend Geology and Volcanoes of Northeastern California
Unit: 1
Hours: 18 lecture
Exploration of the natural history of the volcanoes and mountains of northeastern California. May include national parks (eg. Lassen, Lava Beds). Some hiking required. Camping and/or park entrance fees may be required. A 1 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0055F. Weekend Field Geology
Unit: 1
Formerly known as GEOL 52F
Hours: 18 lecture
Weekend (sometimes including Friday) field trips to selected locations of geologic interest in California and bordering areas. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0056A. Field Geology of Western North America - Death Valley
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
One-week field experience to Death Valley and eastern Sierra Nevada. Emphasis placed on the geologic history of the area. We will be seeing rocks spanning over 1 billion years of earth history. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0056B. Field Geology of Western North America - Geology of Utah
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field course covering the National Parks of northern Arizona, and Utah including, but not limited to: Zion, Bryce, Canyonlands, Grand Canyon, Monument Valley, Arches, and Capitol Reef. Entrance and transportation fees may be required. (CSU)

ESCI 0056C. Field Geology of Western North America - Western Deserts
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field experience covering areas of the Southern California desert, including Carrizo Plain, Barstow, Joshua Tree National Park, Salton Sea, and Anza Borrego State Park. Emphasis will be placed on the geologic history of the region. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0056D. Field Geology in the Sierra Nevada
Units: 2
Hours: 36 lecture
Exploration of the natural history of the Sierra Nevada. May include national parks (eg. Yosemite, Sequoia, Kings Canyon, Mono Lake). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0056E. Geology of the Cascade Volcanoes
Units: 2
Hours: 36 lecture
Exploration of the natural history of the volcanoes and mountains of the Cascade Range of western North America. May include national parks (eg. Lassen, Lava Beds, Crater Lake, Mount Saint Helens, Rainier). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0056F. Field Geology of Western North America
Units: 2
Formerly known as GEOL 53F
Hours: 54 (27 lecture, 27 laboratory)
One-week field experience to selected areas of geologic interest. Emphasis placed on the geologic history of the many parks and monuments of the west. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0056G. Coastal Geology
Units: 2
Hours: 36 lecture
Exploration of the natural history of the western American coast. May include national parks (eg. Pfeiffer, Point Reyes, Redwoods). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0095. Internship in Earth Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Apply the fundamental principles of Earth Science to natural phenomena.
- Solve Earth Science problems using field data.
- Critique, properly manipulate, and present laboratory data needed to solve Earth Science problems.
- Assemble and critique literature relevant to Earth Science investigations.
- Relate Earth Science concepts to real events such as earthquakes, volcanic eruptions, or sever weather events.

Economics
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
W 107, Rocklin Campus

Overview

Economics is the academic discipline that deals with the way societies produce and consume goods and services. As a descriptive discipline, it is concerned with accurate portrayals of national economies, as well as those of regions, firms and individuals. As an analytical discipline its tools are used to order, modify and describe economic activity.

TRANSFER MAJOR REQUIREMENTS in Economics are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in Economics are qualified are found in government service, banking and industry.

Faculty

Stan C. Spencer
Professor, Economics
A.A., Sierra College
A.S., Sierra College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Preeti Tickoo
Assistant Professor, Economics
B.A., University of Pune
M.A., University of Pune
M.B.A., University of Pune

Degrees/Certificates
Economics for Transfer
AA-T Degree
The Associate in Arts in Economics for Transfer degree (AA-T) program provides students with a strong foundation in Economics. Upon completion of the program, students will use critical thinking to demonstrate an understanding of major Economics concepts, including solving quantitative problems with such issues as opportunity costs, markets and profit maximization; analyze the basic principles underlying the economic way of thinking; list and distinguish basic economic terms; and analyze the supply and demand model.

The Associate in Arts in Economics for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in

Economics or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Economics for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
MATH 0013	Introduction to Statistics	4
MATH 0042	Business Calculus	4
Select 3-6 units from the following:		**3-6**
BUS 0201 & BUS 0202	Financial Accounting and Financial Accounting II	
BUS 0203	Managerial Accounting	
BUS 0265	Business Communications	
BUS 0270	Business Law	
IT 0015	Business Information Systems	
CSCI 0010	Introduction to Computing	
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0066	Object-Oriented Programming Using C++	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0030	Analytical Geometry and Calculus I	
MATH 0031	Analytical Geometry and Calculus II	
Select 3-4 units from the following or unused course(s) from the preceding area:		**3-4**
MATH 0032	Analytical Geometry and Calculus III	
Total Units		**20-24**

Courses

Understanding course descriptions (p. 311)

ECON 0001A. Principles of Macroeconomics
Units: 3
Prerequisite: Completion of two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Introductory course focusing on aggregate economic analysis. Topics include: market systems, aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics, and economic growth. (C-ID ECON 202) (CSU, UC)

ECON 0001B. Principles of Microeconomics
Units: 3
Prerequisite: Completion of two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Introductory course focusing on choices of individual economic decision-makers. Topics include scarcity, specialization and trade, market equilibrium, elasticity, production and cost theory, market structures, factor markets, and market failure. (C-ID ECON 201) (CSU, UC)

ECON 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Apply critical thinking skills to evaluate the credibility of economic theories, concepts, and research.
- List and distinguish basic economic terms.
- Analyze the basic principles underlying the economic way of thinking.
- Analyze the supply and demand model.

Education
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

The education department offers students the opportunity to explore the field of education by gaining experience working with students in a school

setting. Students interested in an AA degree that helps prepare them for a career teaching in public and private elementary schools should also see the Liberal Studies major.

Degrees/Certificates

Associate Degree for Transfer

- Elementary Teacher Education: Integrated Programs for Transfer (p. 129)

Associate Degree

- Liberal Studies - Elementary Education (p. 129)

Elementary Teacher Education: Integrated Programs for Transfer

AA-T Degree

This program is designed for prospective California State University transfer students who intend to become elementary school teachers. Upon completion of this degree, students will be able to identify principles that underlie effective relationships with others, basic observation tools, and basic lesson plans; identify academic requirements and experiences needed to obtain a teaching credential; define the role and function of the teacher in the public elementary school setting; and explain the ways in which a student's social environment, motivation, and behavior impact student learning.

The Associate in Arts in Elementary Teacher Education for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Liberal Studies, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Elementary Teacher Education for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
BIOL 0011	Concepts of Biology	4
or BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
COMM C1000	Introduction to Public Speaking	3
ESCI 0010 & 0010L	Introduction to Earth Science and Introduction to Earth Science Laboratory	4
EDU 0010	Introduction to Elementary Classroom Teaching with Field Experience	3
ENGL C1000	Academic Reading and Writing	4
ENGL 0001B	Introduction to Literature	3
ENGL 0044	Children's Literature	3
HDEV 0009	Child Growth and Development	3
HIST 0017A	United States History to 1877	3
HIST 0050	World History to 1500	3
POLS C1000	American Government and Politics	3
Select 3 units from the following:		**3**
ARHI 0101	Art Appreciation	
MUS 0002	Music Appreciation	
THEA 0013	Introduction to Theatre	
Select a Mathematics Option:		**3**
MATH 0017	Concepts of Mathematics	
MATH 0018	The Nature of Mathematics	
MATH 0019	Mathematical Concepts for Elementary School Teachers	
Total Units		**42**

Liberal Studies - Elementary Education

AA Degree

This program, designed for students interested in teaching in public and private elementary schools, prepares students for transfer to four-year colleges and universities. It provides exposure to the fields of natural sciences, social sciences, humanities, composition and critical thinking. Students transferring to CSUS as Liberal Studies majors must take all courses listed below. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
Select 4 units from the following natural sciences courses:		**4**
BIOL 0011	Concepts of Biology	
ESCI 0010 & 0010L	Introduction to Earth Science and Introduction to Earth Science Laboratory	

Select 15 units from the following social sciences and humanities courses:		15
ECON 0001A	Principles of Macroeconomics	
EDU 0007	Tutoring Elementary Students in Reading (also ENGL 0007)	
EDU 0010	Introduction to Elementary Classroom Teaching with Field Experience	
HIST 0017A	History of the United States to 1877	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
HDEV 0009	Child Growth and Development	
POLS 0001	American Government and Politics	
Select 3 units from the following language and rationality courses:		**3**
ENGL 0001B	Critical Thinking and Writing about Literature	
or ENGL 0001C	Critical Thinking and Writing	
ENGL 0002	Structure of English	
COMM 0005	Communication Foundations	
MATH 0017	Concepts of Mathematics	
Total Units		**22**

Courses

Understanding course descriptions (p. 311)

EDU 0007. Tutoring Elementary Students in Reading
Units: 3
Prerequisite: Eligibility for ENGL 11 or completion of ENGL C1000 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An opportunity to learn and practice basic methods of tutoring elementary school children in reading. Combines lecture/discussion with field experience doing extensive tutoring at local elementary school. Negative TB test and fingerprint clearance required. Satisfies one of the two required field experience courses for the CSUS Liberal Studies Program. (CSU)

EDU 0010. Introduction to Elementary Education with Field Experience
Units: 3
Advisory: Completion of HDEV 1 with grade of "C" or better; eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts and issues related to teaching diverse learners in contemporary K-12 schools. Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards. In addition to class time, requires a minimum of 45 hours of structured field work in public school elementary classroom that represent California's diverse student population. Fulfills one of the early field experiences for the CSUS Liberal Studies major. Negative TB test and fingerprint screening required. (C-ID EDUC 200) (CSU, UC)

EDU 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

EDU 0095. Internship in Education
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Identify principles that underlie effective relationships with others, basic observation tools, and basic lesson plans.
- Identify academic requirements and experiences needed to obtain a teaching credential.
- Define the role and function of the teacher in the public elementary school setting.
- Explain the ways in which a student's social environment, motivation, and behavior impact student learning.

Engineering
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Engineering Department offers courses that satisfy the lower division engineering requirements of most California colleges and universities. Students may begin their study of chemical, civil, electrical, or mechanical engineering at Sierra College. Job openings abound in many engineering fields.

TRANSFER MAJOR REQUIREMENTS in Engineering are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Engineering are qualified for positions in research, building industry, manufacturing and business.

Faculty

Philip H. Pattengale
Professor, Engineering
A.A., Fresno City College
B.S., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Engineering Advisory Committee

- Roya Borman, Sacramento Municipal Utility District
- Don Carroll, Western Engineering Contractors, Loomis
- Ronald Chiaratti, Norris Electric, Auburn
- Steve Culley, CalTrans, Auburn
- Jeffrey Hahn, Covanta Energy, Lafayette
- John Haskell, Western Engineering Contractors, Loomis
- Tom Holdredge, Holdredge and Kull, Nevada City
- B. George Kniazewycz, Renovare International, Inc., Alameda
- Steve Leach, R.C.D. Engineering, North San Juan
- Patrick Leonhardt, Energy Absorption Systems, Rocklin
- Leo R. Martinez, Contractual Engineer, Grass Valley
- Arthur Perkins, P.E., Consultant, Moraga
- Steve Sarantopolis, Cranmer Engineering, Grass Valley
- Tom Tinucci, Wellhead Electric Company, Inc., Sacramento
- Terence Vollrath, Consultant, Placerville
- Brian Yeh, General Electric Company, Walnut Creek

Degrees/Certificates

Associate Degree

- Engineering (p. 131)

Certificates of Achievement

- Civil Engineering Technology (p. 131)
- General Engineering Technology (p. 132)

Engineering
AA or AS Degree

The Engineering major recognizes a concentration in the field of Engineering. Successful completion of the curriculum in Engineering prepares engineering students for transfer to four-year colleges or universities. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
ENGR 0130	Statics	3
ENGR 0140B	Materials Science and Engineering	4
ENGR 0151	Engineering Graphics	4
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
Select one of the following physics course combinations:		**4**
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics	
Select 6 units from the following (if not used above):		**6**
CHEM 0001B	General Chemistry II	
ENGR 0095	Internship in Engineering (up to 4 units)	
ENGR 0101	Engineering Seminar	
ENGR 0110	Introduction to Engineering Design	
ENGR 0137	Manufacturing Processes	
ENGR 0180	Engineering Surveying	
ENGR 0220	Programming and Problem Solving in Engineering	
ENGR 0230	Dynamics	
ENGR 0260	Electric Circuits	
ENGR 0260L	Electric Circuits Laboratory	
MATH 0033	Differential Equations and Linear Algebra	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics	
Total Units		**38-39**

Civil Engineering Technology
Certificate of Achievement

Successful completion of the curriculum in Civil Engineering Technology will prepare students for entry-level positions as civil engineering technicians. The certificate is designed to provide knowledge and career technical skills in mathematics, physics, chemistry and civil engineering to assist engineers in fields such as surveying, construction, architecture, environmental, material testing, public utilities and land use. The certificate is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0250	Microsoft Applications for Business	3
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
ENGR 0101	Engineering Seminar	1
ENGR 0151	Engineering Graphics	4
ENGR 0180	Engineering Surveying	4
MATH 0027	Trigonometry	4
MECH 0010	Fundamentals of Electronics	4
Select one of the following physics course combinations:		**5**
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	
Select 3-5 units from the following:		**3-5**
ENGR 0110	Introduction to Engineering Design	
ENGR 0137	Manufacturing Processes	
GEOG 0090	Introduction to Geographic Information Systems (GIS)	
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
Total Units		**33-36**

General Engineering Technology
Certificate of Achievement

Successful completion of the curriculum in General Engineering Technology will prepare students for entry-level positions as engineering technicians. The certificate is designed to provide knowledge and career technical skills in mathematics, physics, chemistry and engineering to assist engineers in fields such as fabrication, HVAC, building maintenance, environmental, industrial, safety, mechanical equipment and medical equipment. The certificate is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0250	Microsoft Applications for Business	3
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
ENGR 0101	Engineering Seminar	1
ENGR 0151	Engineering Graphics	4
MATH 0027	Trigonometry	4
MECH 0010	Fundamentals of Electronics	4
Select one of the following physics course combinations:		**5**
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	

Select 6-10 units from the following:		**6-10**
CHEM 0001B	General Chemistry II	
ENGR 0110	Introduction to Engineering Design	
ENGR 0137	Manufacturing Processes	
ENGR 0220	Programming and Problem Solving in Engineering	
ENGR 0230	Dynamics	
MATH 0029	Pre-Calculus Mathematics	
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism	
Total Units		**32-37**

Courses

Understanding course descriptions (p. 311)

ENGR 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ENGR 0095. Internship in Engineering
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

ENGR 0101. Engineering Seminar
Unit: 1
Formerly known as ENGR 150
Hours: 18 lecture
Exploration of the engineering profession, focusing on branches of engineering and relationships between them, spectrum of work functions, professionalism and ethics. Includes orientation to Sierra College engineering program, evaluation of engineering as a personal career choice and participation in engineering activities. (CSU, UC)

ENGR 0110. Introduction to Engineering Design
Units: 3
Hours: 54 lecture
Explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. Explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. Presents an introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics. Develops communication skills pertinent to the engineering profession. Introduces the fundamentals of engineering design, problem solving, planning, prototyping and some fabrication. (C-ID ENGR 110) (CSU, UC)

ENGR 0130. Statics
Units: 3
Formerly known as ENGR 35
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 54 lecture
A first course in engineering mechanics: properties of forces, moments, couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses, and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia. Optional additional topics include fluid statics, cables, Mohr's circle and virtual work. (C-ID ENGR 130) (CSU, UC)

ENGR 0137. Manufacturing Processes
Units: 3
Formerly known as ENGR 37
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Application of multiple fabrication techniques including tools and materials required for the manufacture of a mechanical assembly. Introduction to design and documentation of a final product. Manufacturing processes in the areas of forming, joining, material removal, casting, welding, assembly and prototyping which includes hands on use of manufacturing equipment. Each student fabricates a final project based on principles of manufacturing. (CSU, UC)

ENGR 0140B. Materials Science and Engineering
Units: 4
Formerly known as ENGR 45
Prerequisite: Completion of PHYS 205 and 205L with grades of "C" or better; and completion of CHEM 1A with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Presents the internal structures and resulting behaviors of materials used in engineering applications, including metals, ceramics, polymers, composites, and semiconductors. The emphasis is upon developing the ability both to select appropriate materials to meet engineering design criteria and to understand the effects of heat, stress, imperfections, and chemical environments upon material properties and performance. Laboratories provide opportunities to directly observe the structures and behaviors discussed in the course, to operate testing equipment, to analyze experimental data, and to prepare reports. (C-ID ENGR 140B) (CSU, UC)

ENGR 0151. Engineering Graphics
Units: 4
Formerly known as ENGR 22A and ENGR 22B
Prerequisite: Completion of MATH 27 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Covers the principles of engineering drawings in visually communicating engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills; orthographic projections; mechanical dimensioning and tolerancing practices; and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skills. The use of CAD software is an integral part of the course. (C-ID ENGR 150) (CSU, UC)

ENGR 0180. Engineering Surveying
Units: 4
Formerly known as ENGR 10
Prerequisite: Completion of MATH 27 with grade of "C" or better
Advisory: Completion with grade of "C" or better or concurrent enrollment in ENGR 151
Hours: 108 (54 lecture, 54 laboratory)
Applies theory and principles of plane surveying: office computations and design; operation of surveying field equipment; and production of engineering plans/maps. Topics include distances, angles, and directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques; and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS. (C-ID ENGR 180) (CSU, UC)

ENGR 0220. Programming and Problem Solving in Engineering
Units: 4
Prerequisite: Completion of MATH 30 and PHYS 205 and 205L with grades of "C" or better
Advisory: PHYS 205 may be taken concurrently
Hours: 108 (54 lecture, 54 laboratory)
Utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. (C-ID ENGR 220) (CSU, UC)

ENGR 0230. Dynamics
Units: 3
Prerequisite: Completion of ENGR 130 with grade of "C" or better
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 54 lecture
Fundamentals of kinematics and kinetics of particles and rigid bodies. Topics include kinematics of particle motion; Newton's second law, work-energy and momentum methods; kinematics of planar motions of rigid bodies; work-energy and momentum principles for rigid body motion; Introduction to mechanical vibrations (optional). (C-ID ENGR 230) (CSU, UC)

ENGR 0260. Electric Circuits
Units: 3
Formerly known as ENGR 17
Prerequisite: Completion of PHYS 210 and PHYS 210L with grades of "C" or better; and completion with grade of "C" or better or concurrent enrollment in MATH 33
Hours: 54 lecture
An introduction to the analysis of electrical circuits. Use of analytical techniques based on the application of circuit laws and network theorems. Analysis of DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. Natural and forced responses of first and second order RLC circuits; the use of phasors; AC power calculations; power transfer; and energy concepts. (C-ID ENGR 260) (CSU, UC)

ENGR 0260L. Electric Circuits Laboratory
Unit: 1
Formerly known as ENGR 17L
Prerequisite: Completion of PHYS 210 and 210L with grades of "C" or better
Corequisite: Concurrent enrollment in ENGR 260
Hours: 54 laboratory
An introduction to the construction and measurement of electrical circuits. Basic use of electrical test and measurement instruments including multimeters, oscilloscopes, power supplies, and function generators. Use of circuit simulation software. Interpretation of measured and simulated data based on principles of circuit analysis for DC, transient, and sinusoidal steady-state (AC) conditions. Elementary circuit design. Practical considerations such as component value tolerance and non-ideal aspects of laboratory instruments. Construction and measurement of basic operational amplifier circuits. (C-ID ENGR 260 L) (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Identify and differentiate between the attributes of the various engineering disciplines as related to education and the workforce.
- Read, analyze, and compose industry standard technical engineering drawings.
- Model physical systems correctly through the use of engineering concepts and then apply advanced mathematical techniques to solve the system.
- Create technical reports that identify, analyze, and assess results taken from experiments that are performed within the engineering lab.
- Construct actual physical models from instructions and diagrams given to them by an instructor.

English
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The Department of English faculty subscribes to the idea that the language and literary arts are a basic and a chief way of discovering who we are, especially if "we" is defined broadly to take in the whole of past and present culture as it resides in the English language. We offer students the means of appreciating excellence in the literary language of the past and of developing excellence in their present uses of language. We believe that this experience can enhance a sense of personal identity as that sense is put in relation to "our" manifestations of identity in the past.

TRANSFER MAJOR REQUIREMENTS in English are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Note: Students who speak a language other than English may choose English as Second Language (ESL) courses. ESL classes help students improve English. If you need support to successfully complete degree and transfer requirements in English, then ESL may benefit you. Please talk with a counselor to review your options. Click here (https://catalog.sierracollege.edu/departments/english-second-language/) to view ESL courses.

Faculty

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M.A., California State University, Sacramento

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Tamalpais Wright
Professor, English
B.A., Sonoma State University
M.A., Sonoma State University

Degrees/Certificates

Associate Degree for Transfer

English for Transfer
AA-T Degree

This program is designed to award the Associate in Arts in English for Transfer degree (AA-T) to those students who have completed a specialization in English. The major provides students with a comprehensive study of composition, literary analysis and rhetorical strategies. Students will be able to identify the major themes, works, authors and movements in literature, particularly British and American literature. Students are trained in composition and given a solid background to explore literature as an intellectual discipline and an art. The required courses help students hone critical thinking, research, rhetoric and writing skills.

The Associate in Arts in English for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in English or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in English for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ENGL 0001B	Introduction to Literature	3
ENGL 0001C	Critical Thinking and Writing	3
Select 3 units from the following:		**3**
ENGL 0030A	American Literature - Beginnings through Civil War	
ENGL 0030B	American Literature - Civil War to the Present	
Select 3 units from the following:		**3**

ENGL 0046A	English Literature	
ENGL 0046B	English Literature	
Select 6 units from the following courses or unused courses from above:		**6**
ENGL 0019	Introduction to Creative Writing	
ENGL 0029	Introduction to Drama as Literature	
ENGL 0032	Introduction to Poetry	
ENGL 0034	Introduction to the Novel	
ENGL 0047A	World Literature	
ENGL 0047B	World Literature	
Select 3 units from the following courses or unused courses from above:		**3**
ENGL 0009	Creative Writing (Scriptwriting)	
ENGL 0020	Creative Writing (Poetry)	
ENGL 0021	Creative Writing (Fiction)	
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
ENGL 0033	Introduction to Shakespeare (The Drama)	
ENGL 0040	The Filmed Novel	
ENGL 0048	Literature of Science Fiction	
Total Units		**21**

Courses

ATTENTION: Effective Fall 2025, the California Community College system will implement Common Course Numbering (CCN) per state mandate (AB1111). CCN courses will be common across all California Community Colleges. Two courses in English have been included in CCN effective Fall 2025: ENGL C1000 (formerly ENGL 1A) and ENGL C1001 (formerly ENGL 1C).

Understanding course descriptions (p. 311)

ENGL C1000. Academic Reading and Writing
Units: 4
Formerly known as ENGL 1A
Prerequisite: Placement as determined by the college's multiple measures assessment process
Hours: 72 lecture
In this course, students receive instruction in academic reading and writing, including writing processes, effective use of language, analytical thinking, and the foundations of academic research. (C-ID ENGL 100) (CSU, UC)

ENGL C1001. Critical Thinking and Writing
Units: 3
Formerly known as ENGL 1C
Prerequisite: College-level composition (ENGL C1000/C-ID ENGL 100) or equivalent
Hours: 54 lecture
In this course, students receive instruction in critical thinking for purposes of constructing, evaluating, and composing arguments in a variety of rhetorical forms, using primarily non-fiction texts, refining writing skills and research strategies developed in ENGL C1000 College Reading and Writing (C-ID ENGL 100) or similar first-year college writing course. (C-ID ENGL 105) (CSU, UC)

ENGL 0001B. Critical Thinking and Writing about Literature
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Develops critical thinking, reading, and writing skills applicable to the analysis of prose, poetry, drama, and criticism from diverse cultural sources and perspectives. Emphasis on the techniques and principles of effective written argument. 6,500 words of formal writing and some research required. (C-ID ENGL 120) (CSU, UC)

ENGL 0002. Structure of English
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Study of structure of English grammar, both descriptive and prescriptive. Introduction to terminology and structure of traditional grammar; analysis of standard rules for agreement, punctuation, pronoun reference, etc.; introduction to varied methods of language acquisition among culturally diverse populations. For students who plan to teach or who are particularly interested in grammar as it relates to writing. Intended to meet CSU requirement for Liberal Studies major. (CSU, UC)

ENGL 0011. Analytical and Critical Thinking in Reading
Units: 3
Prerequisite: Placement by matriculation assessment process OR completion of ENGL N with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Designed to teach critical thinking and critical examination of texts and other printed material. Emphasizes principles of critical thinking, logic and fallacies, reasoning strategies, author's purpose and bias, research evaluation, propaganda, advertising, and reading for academic purpose. Includes instruction in analyzing digital texts. (CSU)

ENGL 0012. Writing in the Workplace
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Principles and practices of workplace writing. Includes organizing, writing, and revising clear, readable documents for the workplace, such as letters, memos, emails, summaries, reports, job application documents, instructions, proposals, and business graphics. (CSU)

ENGL 0016. Introduction to LGBTIQ Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey course consisting of an introduction to and critical analysis of selected LGBTIQ (Lesbian, Gay, Bisexual, Transgender, Intersex, Queer) texts over a range of historical periods and genres, including essay, poetry, autobiography, short fiction, novel, and drama. Significant coverage of and emphasis on the cultural and historical contexts that shaped the production of LGBTIQ literature. (CSU, UC)

ENGL 0017. Introduction to Shakespeare and Popular Culture
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Presents Shakespeare's plays as works of popular culture that have been and continue to be reinvented in a range of artistic forms. This course will involve reading, viewing, discussing, and writing about selected plays of Shakespeare in correlation with contemporary texts. Includes discussion and analysis of the original historical context, contemporary critical views and interpretations, and adaptations of Shakespeare's original texts. (CSU, UC)

ENGL 0018. Creative Writing (Non-Fiction)
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Composition of non-fiction prose, with non-fiction reading and analysis assignments drawn from the following genres: autobiography and memoir, philosophical/contemplative reflections, travel writing, nature writing and political/social commentary. Includes discussion and criticism, in workshop mode, of original student writing. (CSU, UC)

ENGL 0019. Introduction to Creative Writing
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Composition of imaginative writing, with reading assignments of literary models in poetry, fiction, and drama. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student poems, fiction, and plays. (C-ID ENGL 200) (CSU, UC-with unit limitation)

ENGL 0020. Creative Writing (Poetry)
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Writing poetry, with reading assignments of literary models in classical, modern, and contemporary poetry. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student poems. (CSU, UC)

ENGL 0021. Creative Writing (Fiction)
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Writing fiction, with reading assignments of literary models in short story and/or novel. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student prose. (CSU, UC)

ENGL 0024. Introduction to Literary Criticism and Critical Concepts
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the issues, concepts, and contexts central to literary interpretation, with particular concentration on the relationships of aesthetics, culture, history, politics, issues of race, gender, and class, to conceptions of literary meaning and developments in literary form. Includes surveys and history of major approaches to literary criticism and applications of these approaches to literary analysis. (CSU, UC)

ENGL 0027. Literature by Women
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of women's literature, including novels/novellas, the short story, poetry, drama, and essays. Within the literature, which spans time, culture, and genre, we will explore patterns and themes involving women's personal, psychological, political, economic, intellectual, social, and cultural lives. (CSU, UC)

ENGL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ENGL 0029. Introduction to Drama as Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to drama as literature emphasizing the critical analysis of individual plays; the analysis and exploration of the social, historical, and critical contexts of the writing and performance of dramatic literature; and exploration and analysis of the changing nature of its performance and reception. Class explores significant works of drama from a variety of cultures and historical periods. Intended for both English and Drama majors and non-majors. (CSU, UC)

ENGL 0030A. American Literature - Beginnings through Civil War
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of major authors, themes and genres of American literature from its beginnings through the Civil War. Students may begin with either 30A or 30B. (C-ID ENGL 130) (CSU, UC)

ENGL 0030B. American Literature - Civil War to the Present
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of major authors, themes and genres of American literature from the Civil War to the present. Students may begin with either 30A or 30B. (C-ID ENGL 135) (CSU, UC)

ENGL 0032. Introduction to Poetry
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Develops a critical appreciation of poetry as genre through study of selected poets and historical periods; examines poetic structures, styles, themes, and contexts. Students read representative works in English as well as selected works in translation. (CSU, UC)

ENGL 0033. Introduction to Shakespeare (The Drama)
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Reading and discussion of selected plays of Shakespeare; includes discussion of the historical context and contemporary critical views. (CSU, UC)

ENGL 0034. Introduction to the Novel
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Reading, discussion, and critical analysis of selected novels from the eighteenth century to present. Includes discussion of the historical context and contemporary critical views. (CSU, UC)

ENGL 0035. Introduction to the Short Story
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Critical appreciation of the short story. Intensive reading of a representative selection of American, British, and translated short stories. (CSU, UC)

ENGL 0037. American Film Masterpieces
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of the motion picture as art and literature. Emphasis on American films. (CSU, UC-with unit limitation)

ENGL 0038. International Film Masterpieces
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of the motion picture as art and literature. Emphasis on International films. (CSU, UC-with unit limitation)

ENGL 0040. The Filmed Novel
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Intended to increase students' knowledge of and appreciation for the genres of the novel and the film while developing an understanding of the challenges of adapting one art form into another. Serves as an introduction to the history and terminology of these art forms and provides the basic knowledge necessary to analyze them. Covers the choices made by the screenwriters and directors as they sought to overcome the problems posed by transforming the novel into a movie. (CSU, UC)

ENGL 0042. The Documentary Film
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of modern documentary film across a variety of subject matter: sports, advertising, politics, music, art, biography, foreign affairs, business, science, and history. (CSU, UC)

ENGL 0044. Children's Literature
Units: 3
Also known as HDEV 44
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Examination of high quality children's literature, both classic and contemporary, including criteria for selection, uses in child development and education, and practices in presentation and analysis. It includes the discussion of the history of children's literature and current issues such as censorship, literacy, multiculturalism, and diversity. This course is intended for prospective and current teachers, preschool aides, early child education (ECE) majors, librarians, parents, and students interested in the field of literature for children ages 0-13. (C-ID ENGL 180) (CSU, UC)

ENGL 0045. Young Adult Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
An examination of high quality literary works written for for young adults, including discussion of literary form, the criteria for selection, practice in presentation and analysis, and aesthetic appreciation in young readers. Includes the discussion of the history of young adult literature and current issues such as censorship, literacy, multiculturalism, and diversity. May include representative writers such as Shakespeare, Dickens, Twain, and Tolkien as well as contemporary, diverse writers such as Angelou, Lowry, Rowling, Salinger, and Zusak. (CSU, UC)

ENGL 0046A. English Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of English literature from the Anglo-Saxon period through the mid 18th century. Study of selected major authors and texts of each period as well as significant or representative minor authors and texts. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, socioeconomic, and cultural contexts of the literature. Students may begin with either 46A or 46B. (C-ID ENGL 160) (CSU, UC)

ENGL 0046B. English Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of British, British Empire, and Commonwealth authors from the Romantic Movement through the late 20th to early 21st century. Includes works of principal Romantic, Victorian, and 20th century poets, novelists, playwrights, and/or essayists, as well as selected works of significant and representative minor authors. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, socioeconomic, and cultural contexts of the literature. Students may begin with either 46A or 46B. (C-ID ENGL 165) (CSU, UC)

ENGL 0047A. World Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of world literature in translation from the ancient world through the 16th Century. Includes representative works from major world literary cultures and eras; explores traditions where appropriate. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, and cultural contexts of the literature. Includes cross-cultural analysis and exploration of cross-cultural influences in literary culture. Students may begin with either 47A or 47B. (C-ID ENGL 140) (CSU, UC)

ENGL 0047B. World Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of world literature in translation from the seventeenth through twenty-first centuries. Includes representative works from major world literary cultures and eras, including post-colonial developments; explores literary traditions in defined cultural contexts. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, and cultural contexts of the literature. Includes cross-cultural analysis and exploration of cross-cultural influences in literary culture. Students may begin with either 47A or 47B. (C-ID ENGL 145) (CSU, UC)

ENGL 0048. Literature of Science Fiction
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major themes and types of science fiction literature, its primary artists, and its literary and historical relevance. (CSU, UC)

ENGL 0050L. Mastering College Academic Literacy Laboratory

Unit: 1

Prerequisite: Completion of ENGL 570 and 570L with grades of "C" or better or placement by matriculation assessment process; AND completion with grade of "C" or better, or concurrent enrollment in, ENGL 50

Hours: 54 laboratory

Application of inferential comprehension and research strategies to a variety of college level texts. (not transferable)

ENGL 0802. Foundations of Academic Literacy

Units: 0

Prerequisite: Placement by matriculation assessment process

Hours: 80 activity

Course prepares students to begin English N, an integrated developmental college composition and reading course. Reading comprehension, composition, grammar, and sentence development skills are addressed. (pass/no pass grading) (noncredit)

ENGL 0812. Poetry Writing and Experiment

Units: 0

Hours: 8 to 18 lecture as scheduled

Designed for older adults interested in exploring the writing of poetry. Exercises and experiments with language in writing poetry. Uses primarily American poets (from Walt Whitman to Susan Howe and from George Oppen to Emily Dickinson) to determine how writers use image, form, sound and rhythm effectively. Develops a language with which to speak about the craft of poetry. May be repeated. (noncredit)

ENGL 0814. Selected Topics in Creative Writing

Units: 0

Hours: 8 to 54 lecture as scheduled

Course for older adults interested in exploring creative writing. Exercises in creative writing, drawing ideas from personal observation and experience. Overcome obstacles of how and where to begin writing, what to write about, and how to shape ideas into a variety of formats - creative paragraphs, short stories, nonfiction and fiction. Experiment with various styles, structures and forms of writing. Focus and topics will vary with each offering. May be repeated. (noncredit)

ENGL 0815. Selected Topics in Literature

Units: 0

Hours: 8 to 54 lecture as scheduled

Course for older adults interested in exploring literature. Study of selected styles of work and/or authors in literature. Examination of theme and impact of work on society. Includes discussion of the influences of the geographic, economic, cultural, and physical setting at the time of writing. May be repeated. (noncredit)

ENGL 0000N. Introduction to College Writing

Units: 4

Prerequisite: Placement by matriculation assessment process or completion of ENGL 802 with grade of "Pass"

Hours: 72 lecture

Emphasis on the development and integration of thinking, reading, organizing, and writing skills, as required for successful execution of college level composition. Prepares students for ENGL C1000. Students enrolling in ENGL N after having taken ENGL A and/or ENGL 50 will lose credit for ENGL A and/or ENGL 50. (not transferable)

ENGL 0000S. English C1000 Support

Units: 2

Corequisite: Concurrent enrollment in ENGL C1000

Hours: 36 lecture

This class supports students who are concurrently enrolled in ENGL C1000, emphasizing the development and integration of critical thinking, reading, organizing, and writing skills as required for successful execution of college level composition. (not transferable) (pass/no pass grading)

Program Student Learning Outcomes (PSLOs)

- Use standard rules of grammar, punctuation, diction and syntax.
- Write well organized, developed, edited, logically sound analyses and arguments.
- Apply MLA documentation style in researched writing.
- Apply reading strategies in order to critically analyze texts.
- Interpret and analyze literary works.
- Compose, evaluate, and revise original creative works and practice conventions of various genres.

English as a Second Language
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Multi-lingual and cultural students can study five levels of English in the ESL program from Beginning to Advanced. At each level, students will learn English to be successful at their jobs, in their community, and for college while practicing writing, reading, listening, speaking, grammar, pronunciation, and technology skills. It is best if students study one year of adult education before entering level 1. When students finish level 5, they complete the program with an advanced certificate and can continue towards a professional certificate, degree, or courses to transfer to a university. Class schedules offer hybrid (mixed online and in person) or fully in person options. Students can take credit or tuition-free, noncredit classes.

Faculty

Marcia L. Brock
Professor, English as a Second Language
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Degrees/Certificates

Skills Certificate

ACE - Advanced Certificate for ESL (p. 140)

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Noncredit Certificates
ACE - Advanced Certificate for ESL (p. 140)
ESL Intermediate-High Oral Skills (p. 140)
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ESL Intermediate-High Writing and Reading Skills (p. 140)

ACE - Advanced Certificate for ESL

(Formerly ESL Academic Preparedness)

Skills Certificate

The ACE - Advanced Preparedness Skills Certificate recognizes advanced-low level proficiency in English language writing, reading, listening/speaking and grammar skills. This skills certificate may be used to demonstrate academic preparedness for college courses as well as workplace-ready language skills. This skills certificate is not equivalent to an associate degree.

Required Courses

Code	Title	Units
ESL 0025G	Academic Grammar and Editing	3
ESL 0025L	Academic Listening and Speaking	3
ESL 0025C	Advanced Reading and Writing	5-6
or ESL 0030C		
Total Units		**11-12**

ACE - Advanced Certificate for ESL Noncredit

Noncredit Certificate of Competency

The ACE - Advanced Preparedness Certificate is a non-credit mirrored certificate that recognizes advanced level proficiency in English language writing, reading, listening/speaking and grammar skills. This skills certificate may be used to demonstrate academic preparedness for college courses as well as workplace-ready language skills. This noncredit certificate is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
ESL 0840C	Advanced Reading and Writing	0
ESL 0840L	Academic Listening and Speaking	0

ESL 0842G	Academic Grammar and Editing	0
Total Units		**0**

English as a Second Language Intermediate-High Oral Skills

Noncredit Certificate of Competency

The ESL Noncredit Intermediate-High Certificate of Oral Skills is designed to meet the needs of students whose first language is other than English. This certificate provides essential language skills for students to be able to communicate effectively in their community and career. It also provides the listening, speaking, and student skills to be successful in further career training or credit college programs.

Required Courses:

Code	Title	Units
ESL 0830O	Intermediate-High Integrated Listening, Speaking, and Vocabulary	0
ESL 0832G	Intermediate-High Grammar	0
Optional Recommended Electives:		
ESL 0800	Introduction to College ESL	
ESL 0810O	Novice-High Integrated Listening, Speaking and Vocabulary	
ESL 0812G	Basic Grammar	
ESL 0820O	Intermediate Integrated Listening, Speaking and Vocabulary	
ESL 0822G	Intermediate Grammar	
Total Units		**0**

English as a Second Language Intermediate-High Writing and Reading Skills

Noncredit Certificate of Competency

The ESL Noncredit Intermediate-High Certificate of Writing and Reading Skills is designed to meet the needs of students whose first language is other than English. This certificate provides essential language skills for students to use written communication effectively in their community and career. It also provides the writing, reading, and student skills to be successful in further career training or credit college programs.

Required Courses

Code	Title	Units
ESL 0830C	Intermediate-High Integrated Writing and Reading	0
ESL 0830S		0
Optional Recommended Electives:		
ESL 0800	Introduction to College ESL	
ESL 0810C	Novice-High Integrated Writing and Reading	
ESL 0810S		
ESL 0820C	Intermediate Integrated Writing and Reading	
ESL 0820S		
Total Units		**0**

Courses

Understanding course descriptions (p. 311)

ESL 0024P. Accent Reduction and Pronunciation for ESL Students
Unit: 1
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 530 level or completion of ESL 520O with grade of "C" or better or placement at or above the ESL 830 level or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and/or ESL 25L or ESL 840L
Hours: 18 lecture
Focuses on accent reduction for non-native speakers of English. Offers intensive practice and refinement of pronunciation skills that enable students to sound more like native-speakers of English. (not transferable)

ESL 0025C. Advanced Reading and Writing
Units: 6
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 25C level or completion of ESL 530C with grade of "C" or better or placement at or above the 840 level or completion of ESL 830C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25G or ESL 842G and ESL 25L or ESL 840L
Hours: 108 lecture
Language acquisition of college-level vocabulary, reading, writing, and research for advanced English language learners. Students engage in academic coursework with critical expository composition and literary analysis of cultural perspectives including contributions and social experiences of under-represented ethnic or racial groups. (CSU, UC)

ESL 0025G. Academic Grammar and Editing
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530C or ESL 532G with grade of "C" or better or completion of ESL 830C or ESL 832G with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25L or ESL 840L
Hours: 54 lecture
Multi-skill course emphasizing academic grammar and editing skills for non-native speakers. Focus on verb tense usage and sequence, clauses, passive voice for academic writing, conditionals, editing strategies, and application of grammar appropriate to writing purpose. Open to students eligible for ESL 25 level. (CSU)

ESL 0025L. Academic Listening and Speaking
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530O with grade of "C" or better or completion of ESL 830O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25G or ESL 842G
Hours: 54 lecture
Language acquisition of college-level listening, speaking, vocabulary, and research for advanced-level English language learners. Students engage in academic coursework with small-group discussion, presentations, lectures, videos, and podcasts, including an analysis of cultural perspectives and contributions and social experiences of under-represented ethnic or racial groups. (CSU)

ESL 0510C. Novice-High Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510O or ESL 810O and ESL 512G or ESL 812G
Hours: 108 lecture
Novice-High integrated skills course for non-native speakers of English focusing on written production for college, vocational and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused paragraphs and level-appropriate vocabulary, grammar and success strategies. (not degree applicable)

ESL 0510O. Novice-High Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510C or 810C and ESL 522G or ESL 822G
Hours: 54 lecture
Novice-high course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0512G. Basic Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Hours: 54 lecture
Basic grammar skills for non-native English speakers with focus on sentence-level usage. (not degree applicable)

ESL 0512P. Basic Pronunciation for ESL Students
Unit: 1
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510 or 810 level courses
Hours: 18 lecture
Focuses on the learning of basic pronunciation skills for non-native speakers of English. It offers intensive practice of commonly occurring vowel and consonant sounds and combinations of sounds with an introduction to intonation and stress using novice-high and low-intermediate vocabulary level. (not degree applicable)

ESL 0512T. ESL through Basic Computer Technology
Unit: 1
Prerequisite: Eligibility for ESL 510 or 520 levels
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 510 and 520 levels. (not degree applicable)

ESL 0520C. Intermediate Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510C with grade of "C" or better or completion of ESL 810C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520O or ESL 820O and ESL 522G or ESL 822G
Hours: 108 lecture
Intermediate level integrated skills course for non-native speakers of English focusing on written production for college, vocational, and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused multi-paragraph writing and level-appropriate vocabulary, grammar, and success strategies. (not degree applicable)

ESL 0520O. Intermediate Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510O with grade of "C" or better or completion of ESL 810O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520C or 820C and ESL 522G or ESL 822G
Hours: 54 lecture
Intermediate course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0522F. Intermediate ESL through Film
Unit: 1
Prerequisite: Eligibility for ESL 520 or 530 levels
Hours: 27 (9 lecture, 18 activity)
Intermediate speaking and listening skills for non-native speakers of English through film. Popular American films enhance cultural competency and build fluency in the exchange of ideas in small groups. Includes viewing of films and film excerpts, lectures, group discussions, oral presentations, and reading and writing summaries and reviews. (not degree applicable)

ESL 0522G. Intermediate Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 512G with grade of "C" or better or ESL 812G with grade of "Pass" or completion of ESL 510C with grade of "C" or better or ESL 810C with grade of "Pass"
Hours: 54 lecture
Intermediate grammar skills for non-native English speakers with focus on verbs, modifiers, word order, and sentence structure. (not degree applicable)

ESL 0522T. Intermediate ESL through Computer Technology
Unit: 1
Prerequisite: Eligibility for ESL 520 or 530 levels
Advisory: Completion of ESL 512T with grade of "C" or better recommended
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 520 and 530 levels. (not degree applicable)

ESL 0530C. Intermediate-High Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520C with grade of "C" or better or completion of ESL 820C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and ESL 532G or ESL 832G
Hours: 108 lecture
Intermediate-high level integrated skills course for non-native speakers of English focusing on written production for college and career. Emphasis on comprehension and analysis of level-appropriate authentic materials with genre-based and essay style writing, vocabulary, grammar, and success strategies. (not degree applicable)

ESL 0530O. Intermediate-High Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520O with grade of "C" or better or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530C or 830C and ESL 522G or 822G
Hours: 54 lecture
Intermediate-high course for non-native speakers of English focusing on oral production. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0532G. Intermediate-High Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 520C or 522G with grade of "C" or better or ESL 820C or 822G with grade of "Pass"
Hours: 54 lecture
Intermediate-high grammar skills for non-native English speakers with focus on error correction, verbs, clauses, and complex sentence structure. (not degree applicable)

ESL 0800. Introduction to College ESL
Units: 0
Prerequisite: Placement by ESL matriculation assessment process
Hours: 108 lecture
Novice level course of integrated listening, speaking, reading, vocabulary, grammar and writing skills to prepare students for novice-high, credit ESL courses. Emphasis on common situations and functions of college, vocation, and community. Activities include introduction to college resources and basic use of computers. Consistent attendance is required. (pass/no pass grading) (noncredit)

ESL 0810C. Novice-High Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510O or ESL 810O and ESL 512G or ESL 812G
Hours: 108 lecture
Novice-High integrated skills course for non-native speakers of English focusing on written production for college, vocational and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused paragraphs and level-appropriate vocabulary and grammar and success strategies. (pass/no pass grading) (noncredit)

ESL 0810O. Novice-High Integrated Listening, Speaking and Vocabulary
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510C or 810C and ESL 522G or ESL 822G
Hours: 54 lecture
Novice-high course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0812G. Basic Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Hours: 54 lecture
Basic grammar skills for non-native English speakers with focus on sentence-level usage. (pass/no pass grading) (noncredit)

ESL 0812P. Basic Pronunciation for ESL Students
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 810 or 510 level courses
Hours: 18 lecture
Focuses on the learning of basic pronunciation skills for non-native speakers of English. It offers intensive practice of commonly occurring vowel and consonant sounds and combinations of sounds with an introduction to intonation and stress using novice-high and low-intermediate vocabulary level. (pass/no pass grading) (noncredit)

ESL 0812T. ESL Through Basic Computer Technology
Units: 0
Prerequisite: Eligibility for ESL 810 or 820 levels
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 810 and 820 levels. (pass/no pass grading) (noncredit)

ESL 0812V. Vocational ESL for Construction and Trades
Units: 0
Prerequisite: Eligibility for ESL 810 or ESL 510 level
Hours: 36 lecture
High-beginner/low-intermediate level course of listening, speaking, reading, vocabulary, grammar and writing skills to prepare students for the workplace and/or Sierra College CTE construction program. Emphasis on trade-specific terminology and communication skills. (pass/no pass grading) (noncredit)

ESL 0820C. Intermediate Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510C with grade of "C" or better or completion of ESL 810C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520O or ESL 820O and ESL 522G or ESL 822G
Hours: 108 lecture
Intermediate level integrated skills course for non-native speakers of English focusing on written production for college, vocational, and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused multi-paragraph writing and level-appropriate vocabulary and grammar and success strategies. (pass/no pass grading) (noncredit)

ESL 0820O. Intermediate Integrated Listening, Speaking and Vocabulary
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510O with grade of "C" or better or completion of ESL 810O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 820C or 520C and ESL 822G or ESL 522G
Hours: 54 lecture
Intermediate course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0822F. Intermediate ESL through Film
Units: 0
Prerequisite: Eligibility for ESL 820 or 830 levels
Hours: 27 (9 lecture, 18 activity)
Intermediate speaking and listening skills for non-native speakers of English through film. Popular American films enhance cultural competency and build fluency in the exchange of ideas in small groups. Includes viewing of films and film excerpts, lectures, group discussions, oral presentations, and reading and writing summaries and reviews. (pass/no pass grading) (noncredit)

ESL 0822G. Intermediate Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 512G with grade of "C" or better or ESL 812G with grade of "Pass" or completion of ESL 510C with grade of "C" or better or ESL 810C with grade of "Pass"
Hours: 54 lecture
Intermediate grammar skills for non-native English speakers with focus on verbs, modifiers, word order, and sentence structure. (pass/no pass grading) (noncredit)

ESL 0822T. Intermediate ESL through Computer Technology
Units: 0
Prerequisite: Eligibility for ESL 820 or 830 levels
Advisory: Completion of ESL 812T with grade of "C" or better recommended
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 820 and 830 levels. (pass/no pass grading) (noncredit)

ESL 0830C. Intermediate-High Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520C with grade of "C" or better or completion of ESL 820C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and ESL 532G or ESL 832G
Hours: 108 lecture
Intermediate-high level integrated skills course for non-native speakers of English focusing on written production for college and career. Emphasis on comprehension and analysis of level-appropriate authentic materials with genre-based and essay style writing, vocabulary, grammar, and success strategies. (pass/no pass grading) (noncredit)

ESL 0830O. Intermediate-High Integrated Listening, Speaking, and Vocabulary
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520O with grade of "C" or better or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530C or 830C and ESL 522G or 822G
Hours: 54 lecture
Intermediate-high course for non-native speakers of English focusing on oral production. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0832G. Intermediate-High Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 520C or 522G with grade of "C" or better or ESL 820C or 822G with grade of "Pass"
Hours: 54 lecture
Intermediate-high grammar skills for non-native English speakers with focus on error correction, verbs, clauses, and complex sentence structure. (pass/no pass grading) (noncredit)

ESL 0840C. Advanced Reading and Writing
Units: 0
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 25C level or completion of ESL 530C with grade of "C" or better or placement at or above the 840 level or completion of ESL 830C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25G or ESL 842G and ESL 25L or ESL 840L
Hours: 108 lecture
Language acquisition of college-level vocabulary, reading, writing, and research for advanced English language learners. Students engage in academic coursework with critical expository composition and literary analysis of cultural perspectives including contributions and social experiences of under-represented ethnic or racial groups. (pass/no pass grading) (noncredit)

ESL 0840L. Academic Listening and Speaking
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530O with grade of "C" or better or completion of ESL 830O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25G or ESL 842G
Hours: 54 lecture
Language acquisition of college-level listening, speaking, vocabulary, and research for advanced-level English language learners. Students engage in academic coursework with small-group discussion, presentations, lectures, videos, and podcasts, including an analysis of cultural perspectives and contributions and social experiences of under-represented ethnic or racial groups. (pass/no pass grading) (noncredit)

ESL 0842G. Academic Grammar and Editing
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530C or ESL 532G with grade of "C" or better or completion of ESL 830C or ESL 832G with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25L or ESL 840L
Hours: 54 lecture
Multi-skill course emphasizing academic grammar and editing skills for non-native speakers. Focus on verb tense usage and sequence, clauses, passive voice for academic writing, conditionals, editing strategies, and application of grammar appropriate to writing purpose. Open to students eligible for ESL 25 level/840 level. (pass/no pass grading) (noncredit)

ESL 0842P. Accent Reduction and Pronunciation for ESL Students
Units: 0
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 530 level or completion of ESL 520O with grade of "C" or better or placement at or above the ESL 830 level or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and/or ESL 25L or ESL 840L
Hours: 18 lecture
Focuses on accent reduction for non-native speakers of English. Offers intensive practice and refinement of pronunciation skills that enable students improve their understanding and communication with Native Speakers while reducing their own accents to sound more like native-speakers of English. (pass/no pass grading) (noncredit)

ESL 0850S. ESL Support for ENGL C1000 Academic Reading and Writing
Units: 0
Corequisite: Concurrent enrollment in ENGL C1000
Hours: 36 lecture
Prepares and supports Multi-lingual and English Learners (ELLs) enrolled in ENGL C1000. Students will develop their grammar and academic reading writing skills through activities, self-editing, plus reading and short writing assignments, focusing on issues specific to ELLs. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Integrate form and usage to produce and understand level-appropriate written and oral English discourse following language conventions, and using acceptable grammatical forms, word order and purpose.
- Devise meaning accurately from aural discourse and orally construct sociolinguistically appropriate and accurate language for community,

vocational, and academic functions using authentic, level-appropriate language and skills.

- Decode, comprehend, and analyze English texts applying lexical and reading skills and strategies for intensive and extensive purposes.
- Compose level-appropriate academic writing in English applying developmental, organizational, grammatical, lexical and mechanical skills through the use of the writing process.
- Expand English language skills for workplace and community needs.

Environmental Sciences and Sustainability

Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Environmental Sciences and Sustainability program at Sierra College provides students with the opportunity to meet the requirements to transfer to four-year colleges in the environmental fields including Environmental Studies and Environmental Science. The program provides students with a common interdisciplinary base with which to address issues of environmental health, sustainability and global stewardship. Students will have the opportunity to apply principles from a range of fields including the physical and life sciences, social sciences and philosophy, as well as technical skills utilized in ecosystem assessment and the expanding field of solar energy.

Faculty

Kristine D. Gilbert
Professor, Environmental Sciences and Sustainability
B.A., University of California, Davis
M.S., California State University, Chico

Molly Hardesty-Moore
Assistant Professor, Environmental Sciences and Sustainability
B.A., UC Berkeley
M.A., UC Santa Barbara

Degrees/Certificates

Associate Degree for Transfer

- Environmental Science for Transfer (p. 145)

Associate Degrees

- Environmental Sciences (p. 146)
- Environmental Studies (p. 147)

Environmental Science for Transfer
AS-T Degree

This program provides students with a strong foundation in environmental sciences. Upon completion of this degree, students will be able to identify and describe the essential components of earth's natural environment - its physical, biological, energy-related, and ecological elements; describe and analyze core environmental problems, their causes and consequences, and practical solutions; evaluate and apply principles of sustainability to human activity on earth; apply the scientific method to design, conduct experiments, and test hypotheses; critically evaluate and interpret environmental information; and, as informed and responsible individuals, evaluate contemporary environmental issues that have social and/or ethical implications.

The Associate in Science in Environmental Science for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in environmental sciences, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

Successful completion of the Environmental Science for Transfer curriculum will prepare students for transfer to four-year colleges or universities. The major has been designed to meet lower-division requirements for certain majors at transfer institutions. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

To earn the Associate in Science in Environmental Science for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
BIOL 0001	General Biology	4
CHEM 0001A	General Chemistry I	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
ECON 0001B	Principles of Microeconomics	3

ESS 0001	Introduction to Environmental Sciences and Sustainability	3
PHYS 0105	General Physics I	4
PHYS 0105L	General Physics I Laboratory	1
PHYS 0110	General Physics II	4
PHYS 0110L	General Physics II Laboratory	1
Select an Earth Science or Geography option:		**4**
ESCI 0001 & 0001L	Physical Geology and Physical Geology Laboratory	
GEOG 0001 & 0001L	Physical Geography and Physical Geography Laboratory	
Select a Statistics and Calculus option:		**7-10**
PSYC 0142 & MATH 0030	Introduction to Psychological Statistics and Analytical Geometry and Calculus I	
STAT C1000 & MATH 0030	Introduction to Statistics and Analytical Geometry and Calculus I	
Total Units		**41-45**

Environmental Sciences

AS Degree

Successful completion of the Environmental Sciences curriculum will prepare students for transfer to four-year colleges or universities in areas including environmental studies and sciences, wildlife conservation biology, ecology, forestry, toxicology, waste management, and others. Environmental Sciences is the combination of biological, chemical, geological, and mathematical principles as they apply to the environment and environmental problems. Commonly, environmental science is thought of as the study of solving these problems, such as degradation and pollution of the environment, that may have been caused by humans. Environmental science also focuses on preserving and managing natural resources. The major has been designed to meet lower-division requirements for Environmental Sciences majors at transfer institutions. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California State University General Education Breadth (p. 311) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 311).

Required Courses

Code	Title	Units
BIOL 0140	Organismal Biology	4.5
or BIOL 0002 & BIOL 0003	Botany and General Zoology	

Code	Title	Units
CHEM 0001A	General Chemistry I	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
BIOL 0140	Organismal Biology	4.5
or BIOL 0002 & BIOL 0003	Botany and General Zoology	

ESCI 0001	Physical Geology	3
or GEOG 0001	Physical Geography	
ESS 0001	Introduction to Environmental Sciences and Sustainability	3
Select 4-6 units from the following:		**4-6**
AGRI 0198	Food, Society and the Environment	
AGRI 0221	Introduction to Soil Science	
ANTH 0002	Cultural Anthropology	
ANTH 0014	Global Problems	
BIOL 0013	Field Methods in Ecology	
BIOL 0014	Natural History, Ecology and Conservation (also ESS 0014)	
BIOL 0016A	Local Ecosystems of Placer County [1]	
BIOL 0016B	Local Ecosystems of Nevada County [1]	
BIOL 0016C	Vernal Pools and the California Prairie [1]	
BIOL 0016D	Biology of Waterfowl and Marsh Birds [1]	
BIOL 0016E	Ecology of the Sierran Conifer Forest [1]	
BIOL 0016G	Field Paleontology and Ancient Environments (also ESCI 0016G) [1]	
BIOL 0016H	Ecology of the Mendocino Coast [1]	
BIOL 0016I	Biology of Mono Lake and the Great Basin [1]	
BIOL 0016J	Ecology of Point Reyes National Seashore [1]	
BIOL 0016K	Foothill Ecology of the Sierra Nevada [1]	
BIOL 0016L	Aquatic and Riparian Environments of California Waterways [1]	
BIOL 0016M	Marine Mammals and Birds [1]	
BIOL 0016N	Ecology of the Modoc Plateau [1]	
BIOL 0016O	Ecology of the High Sierra and White-Inyo Mountains [1]	
BIOL 0016P	Ecology of Death Valley and Desert Ecosystems [1]	
BIOL 0016Q	Ecology of Mid-Western North America [1]	
BIOL 0016R	Canyon Lands of the Southwest [1]	
BIOL 0016T	Ecology of the Northern California Coast [1]	
BIOL 0016U	Ecology of the Central California Coast [1]	
BIOL 0016V	Ecology of Southern California Deserts [1]	
BIOL 0016W	Ecology of the Klamath and Southern Cascade Ranges [1]	
BIOL 0016Y	Ecology of National Parks and Wilderness Ecosystems [1]	
BIOL 0016Z	Ecology of the American River [1]	
BIOL 0017B	Ecology of the Sutter Buttes [1]	
BIOL 0023	Wildflower Identification	
BIOL 0024	Wildland Trees and Shrubs (Dendrology)	
ECON 0001A	Principles of Macroeconomics	
or ECON 0001B	Principles of Microeconomics	
ESCI 0001L	Physical Geology Laboratory	

Code	Title	
ESCI 0010	Introduction to Earth Science	
ESCI 0054A	Sierra Nevada and Western Basin and Range Provinces [1]	
ESCI 0054B	Great Valley and Coast Range Provinces [1]	
ESCI 0054C	Great Valley, Coast Ranges, and Sutter Buttes [1]	
ESCI 0054D	Western Sierra Nevada and the Mother Lode [1]	
ESCI 0054E	Major Rock Units of the Northern Sierra [1]	
ESCI 0055C	Weekend Field Geology - Point Reyes [1]	
ESCI 0055F	Weekend Field Geology [1]	
ESS 0001L	Introduction to Environmental Science Laboratory	
ESS 0006	The Sierra Nevada	
ESS 0006F	Sierra Nevada Field Trip	
ESS 0007	Energy, Environment, and Climate (also ESCI 0007)	
ESS 0008	California Water	
ESS 0010	Conservation of Natural Resources	
ESS 0013	Environmental Regulations	
GEOG 0001	Physical Geography	
GEOG 0001L	Physical Geography Laboratory	
GEOG 0002	Cultural Geography	
GEOG 0090	Introduction to Geographic Information Systems (GIS)	
GEOG 0091A	Beginning Geospatial Design	
GEOG 0091B	Intermediate Geospatial Design	
MATH 0013	Introduction to Statistics	
PHIL 0060	Introduction to Environmental Ethics	
Total Units		**19.5-22.5**

[1]

A maximum of 2 units may be taken from the BIOL 0016, BIOL 0017, BIOL 0023 and ESCI 0016, 0054 and 0055 field studies courses.

Environmental Studies

AA Degree

Successful completion of the Environmental Studies curriculum will prepare students for transfer to four-year colleges or universities in areas including sustainability, environmental policy, regulations and law, land use planning, environmental education, environmental justice, and others, or entry level positions in related fields. While there is a required foundation of environmental science, ecology and conservation, the environmental studies degree includes more emphasis on the political, economic, and social aspects related to the environment and sustainability rather than the biological, chemical geological and mathematical aspects. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (http://catalog.sierracollege.edu/student-resources/general-education/associate-degree-requirements/);
- California State University General Education Breadth (http://catalog.sierracollege.edu/student-resources/general-education/california-state-university-general-education-breadth-requirements/) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (http://catalog.sierracollege.edu/student-resources/general-education/intersegmental-general-education-transfer-curriculum-igetc/).

Required Courses

Code	Title	Units
BIOL 0014	Natural History, Ecology and Conservation (Also ESS 0014)	4
ECON 0001B	Principles of Microeconomics	3
ESS 0001	Introduction to Environmental Sciences and Sustainability	3
ESS 0013	Environmental Regulations	1
MATH 0013	Introduction to Statistics	4-6
Select 6-9 units from the following:		**6-9**
AGRI 0198	Food, Society and the Environment	
ANTH 0002	Cultural Anthropology	
ANTH 0014	Global Problems	
BIOL 0016A	Local Ecosystems of Placer County	
BIOL 0016B	Local Ecosystems of Nevada County [1]	
BIOL 0016C	Vernal Pools and the California Prairie [1]	
BIOL 0016D	Biology of Waterfowl and Marsh Birds [1]	
BIOL 0016E	Ecology of the Sierran Conifer Forest [1]	
BIOL 0016G	Field Paleontology and Ancient Environments [1]	
BIOL 0016H	Ecology of the Mendocino Coast [1]	
BIOL 0016I	Biology of Mono Lake and the Great Basin [1]	
BIOL 0016J	Ecology of Point Reyes National Seashore [1]	
BIOL 0016K	Foothill Ecology of the Sierra Nevada [1]	
BIOL 0016L	Aquatic and Riparian Environments of California Waterways [1]	
BIOL 0016M	Marine Mammals and Birds [1]	
BIOL 0016N	Ecology of the Modoc Plateau [1]	
BIOL 0016O	Ecology of the High Sierra and White-Inyo Mountains [1]	
BIOL 0016P	Ecology of Death Valley and Desert Ecosystems [1]	
BIOL 0016Q	Ecology of Mid-Western North America [1]	
BIOL 0016R	Canyon Lands of the Southwest [1]	
BIOL 0016T	Ecology of the Northern California Coast [1]	
BIOL 0016U	Ecology of the Central California Coast [1]	
BIOL 0016V	Ecology of Southern California Deserts [1]	

BIOL 0016W	Ecology of the Klamath and Southern Cascade Ranges [1]	
BIOL 0016Y	Ecology of National Parks and Wilderness Ecosystems [1]	
BIOL 0016Z	Ecology of the American River [1]	
BIOL 0017B	Ecology of the Sutter Buttes [1]	
BIOL 0023	Wildflower Identification	
ECON 0001A	Principles of Macroeconomics	
ESCI 0001	Physical Geology	
or GEOG 0001	Physical Geography	
ESCI 0054B	Great Valley and Coast Range Provinces [1]	
ESCI 0054C	Great Valley, Coast Ranges, and Sutter Buttes [1]	
ESCI 0054D	Western Sierra Nevada and the Mother Lode [1]	
ESCI 0054E	Major Rock Units of the Northern Sierra [1]	
ESCI 0055C	Weekend Field Geology - Point Reyes [1]	
ESCI 0055F	Weekend Field Geology [1]	
ESS 0001L	Introduction to Environmental Science Laboratory	
ESS 0006	The Sierra Nevada	
ESS 0006F	Sierra Nevada Field Trip	
ESS 0007	Energy, Environment, and Climate	
ESS 0008	California Water	
ESS 0010	Conservation of Natural Resources	
GEOG 0002	Cultural Geography	
PHIL 0060	Introduction to Environmental Ethics	
SOC 0110	Introduction to Social Justice	
Total Units		**21-26**

[1]

A maximum of 2 units may be taken from the BIOL 0016, BIOL 0017, BIOL 0023 and ESCI 0016, 0054 and 0055 field studies courses.

Courses

Understanding course descriptions (p. 311)

ESS 0001. Introduction to Environmental Sciences and Sustainability
Units: 3
Formerly known as INT 1
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A study of the natural world and how it is influenced by human activity. This course will introduce and analyze the scientific basis of major environmental issues and evaluate potential solutions within the context of diverse human cultures and societies. Topics include principles of physical and biological systems, biogeochemical cycles, global climate, natural laws, land, air and water resources, consumption and waste, pollution, toxicology, human population growth, and sustainability on a local, regional and global level. (C-ID ENVS 100) (CSU, UC)

ESS 0001L. Introduction to Environmental Science Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESS 1
Hours: 54 laboratory
Hands-on, inquiry-based learning in topics associated with environmental science. Laboratory and field studies including applications of physical science principles, ecological studies, and exposure to sustainability issues related to human society. Promotes critical thinking, problem solving, scientific and environmental literacy. May include field trip(s) during or in lieu of lab time. (CSU, UC)

ESS 0006. The Sierra Nevada
Units: 3
Formerly known as INT 6
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Integrated study of the Sierra Nevada including its physical attributes, geological characteristics, origin and development, flora and fauna, water resources, historical and economic significance, and influences on literature, art, and culture. Includes contemporary environmental, economic, and management issues in the Sierra. (CSU, UC)

ESS 0006F. Sierra Nevada Field Trip
Units: 0.5-1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESS 6
Hours: 18 lecture per unit
Field lecture course designed to be taken concurrently with ESS 6. A field study of selected sites in the Sierra Nevada ecoregion, comparing their biological inventory, ecological relationships, physical environments, and sensitivity to human interactions and activities. Moderate hiking and/or camping may be involved. (CSU)

ESS 0007. Energy, Environment, and Climate
Units: 3
Also known as ESCI 7
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the nature of energy and the environmental impact of its societal use in the context of Earth's record of changing climate. Explores current global climate change due to post-1750 greenhouse gas emissions and strategies for mitigation and adaptation to changing climate predictions, emphasizing future alternative energy sources. Designed for students majoring in areas related to the environmental sciences and/or those interested in developing a substantiated understanding of the role played by citizens in ensuring a healthy environment for future generations. (CSU, UC)

ESS 0008. California Water
Units: 4
Hours: 108 (54 lecture, 54 laboratory)
Interdisciplinary examination of California water ecosystems, infrastructure, uses, and impacts. Students will learn about: hydrology; aquatic ecosystems including rivers, lakes, wetlands, estuaries, and marine environments; water infrastructure including dams, levees, aqueducts, and wastewater treatment facilities; groundwater recharge, withdrawal, use and impacts; the role of water in agricultural, urban, environmental and political systems; water quality; water storage and transfers; water policy; and conflicts arising from water scarcity. May include field trips during or in lieu of lab time. Students may be required to provide their own transportation. (CSU, UC)

ESS 0010. Conservation of Natural Resources
Units: 3
Formerly known as AGRI 190 and NATR 10
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Use and protection of natural resources, including soil, water, forest, mineral, plant, and animal life. Ecological principles, history of the conservation movement, modern problems in resource use, and the citizen's role in conservation. (CSU, UC)

ESS 0013. Environmental Regulations
Unit: 1
Formerly known as BIOL 13A
Advisory: Completion of BIOL/ESS 14, ESS 1 or ESS 10 with grade of "C" or better
Hours: 18 lecture
Survey of major California environmental regulations and relevant federal regulations. Designed using case study analyses to explore environmental laws applicable to water, land and air resources. (CSU)

ESS 0014. Natural History, Ecology and Conservation
Units: 4
Also known as BIOL 14
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Introduction to the study of biology and ecology of organisms and ecosystems of the world, with an emphasis on California. Special focus on significance of functioning ecosystems and human influence on the environment. May include field trips during or in lieu of lab time. (CSU, UC)

ESS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ESS 0095. Internship in Environmental Sciences and Sustainability
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Identify and describe the essential components of earth's natural environment, the physical, chemical, and biological components of the earth's systems, and show how they function.
- Describe and analyze core environmental problems, their causes, consequences, and practical solutions.
- Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.
- Investigate the role of governmental policy, citizen involvement, and/or ethics/values/morals in influencing human interaction with the environment.

- Demonstrate an integrative, interconnective and interdisciplinary approach to environmental issues, with a focus on sustainability.

Ethnic Studies

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Ethnic Studies is an interdisciplinary program of study that focuses on the experiences, contributions, and knowledge produced by historically underrepresented racially minoritized groups in the United States; with an intersectional focus on Native Americans, Black/African Americans, Asian Americans and the Chicanx & Latinx communities. The Ethnic Studies department houses the Chicana/o Studies Associated of Arts Degree.

TRANSFER MAJOR REQUIREMENTS in Ethnic Studies (including Black/African American Studies, Native American Studies, Asian American Studies, & Chicana/o Studies) are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in Ethnic Studies are qualified include careers in the public, private, and nonprofit sectors, and other helping professions.

Faculty

Dalaina Agostinho
Assistant Professor, Ethnic Studies
B.A., California State University, Sacramento
M.A., Arizona State University

Ernesto Garay
Assistant Professor, Ethnic Studies
B.A., University of California, Santa Cruz
M.A., San Francisco State University
M.A., University of Oregon

Melissa Leal
Assistant Professor, Ethnic Studies
B.A., California State University, Sacramento
Ph.D., University of California, Davis

Jane Skaife
Assistant Professor, Ethnic Studies
B.A., University of California, San Diego
B.A., University of California, Davis
Ph.D., University of California, Davis

Degrees/Certificates

Associate Degrees

- Chicana and Chicano Studies (p. 150)
- Social and Behavioral Sciences (p. 150)

Chicana and Chicano Studies
AA Degree
The Chicana and Chicano Studies (CHS) program at Sierra College offers students an interdisciplinary approach to a growing and dynamic field of study that draws from Anthropology, Art, History, Literature, Political Science, Psychology, Social Science, Sociology and Spanish. The Chicana and Chicano Studies Program prepares students for further study in Chicana and Chicano Studies or a social science or humanities course of study leading to BA, MA, and/or Ph.D. degrees. Chicana and Chicano Studies provides students with career opportunities in education, social work, law, public administration, community development, the arts, ecology, health, law enforcement, and business. Upon completion of the program, students will use critical thinking to gain a greater understanding of the diverse and complex experiences of persons who identify as American Latino, Chicana, Chicano, Chicanx, Xicana, Xicano, Chican@, Hispana, Hispanic, Hispano, Indo-Hispano, Latina, Latino, Latinx, Mexican American, South/Caribbean or Central American. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ETHN 0011	Introduction to Ethnic Studies	3
ETHN 0030	Introduction to Chicana/o Studies	3
HIST 0023	Chicano/Mexican American History	3
Select 3-5 units from the following:		**3-5**
ARHI 0142	History of Latinx and Chicanx Art	
ETHN 0014	Introduction to Asian American Studies	
SPAN 0001	Elementary Spanish - Level I	
SPAN 0002	Elementary Spanish - Level II	
SPAN 0003	Intermediate Spanish - Level I	
SPAN 0004	Intermediate Spanish - Level II	
SPAN 0017	Intermediate Conversational Spanish	
SPAN 0020	Spanish for the Healthcare Professions	
Select 3 units from the following:		**3**
ADMJ 0058	Community and the Justice System	
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0007	Native Peoples of California	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ETHN 0020	Introduction to African American Studies	
ETHN 0045	Federal Indian Law and Policy	
ETHN 0050	Ethnic Images in Film	
ETHN 0053	Introduction to Native American Studies	
HDEV 0025	Teaching in a Diverse Society	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0020	California History	
HIST 0025	Native American History	
HIST 0026	Women in World History	
POLS 0007	Politics of the Developing World	
POLS 0008	American Foreign Policy	
SOC 0003	Race, Ethnicity and Inequality	
SOC 0110	Introduction to Social Justice	
Select 3 units from the following:		**3**
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
ARHI 0132	History of Women in Art	
HIST 0027	Women in American History	
HUM 0009	Introduction to Women, Gender and Religion (Also WMST 0003)	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (Also WMST 0002)	
POLS 0027	Women and Politics in a Global Society	
PSYC 0130	Human Sexuality	
SOC 0027	Sociology of Gender	
WMST 0001	Introduction to Women's Studies	
WMST 0004	Feminism and Social Action (Also SOC 0010)	
Total Units		**18-20**

Social and Behavioral Sciences
AA or AS Degree
(formerly Social Science)

The Social and Behavioral Sciences degree provides students with a broad perspective on human behavior. Successful completion of the curriculum in Social and Behavioral Sciences offers students a breadth of knowledge that could be focused into single discipline degrees as well as applied to an interdisciplinary degree. By drawing from a select group of disciplines, students will study about themselves and others as members of a larger society. Topics and discussions strengthen students' ability to gather and apply information, evaluate how societies and social subgroups operate, gain knowledge to apply to life and think critically. The courses emphasize a span of social and behavioral disciplines. Students should choose the emphasis appropriate to their transfer institution or areas of interest. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California State University General Education Breadth (p. 311) pattern;

- Intersegmental General Education Transfer Curriculum (IGETC)

Required Courses

Code	Title	Units
ETHN 0011	Introduction to Ethnic Studies	3
Select 9 units from the following Behavioral Sciences:		**9**
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0005	Introduction to Archaeology	
ANTH 0007	Native Peoples of California	
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0006	Performance of Diverse Literatures	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
COMM 0070	Mass Communication: Media and Society	
HDEV 0001	Human Development Through the Lifespan	
HDEV 0004	Child, Family, and Community	
HDEV 0009	Child Growth and Development	
HDEV 0025	Teaching in a Diverse Society	
NUTF 0010	Principles of Nutrition	
PSYC 0100	Introduction to Psychology	
PSYC 0103	Social Psychology	
PSYC 0104	Developmental Psychology	
PSYC 0105	Research Methods in Psychology	
PSYC 0106	Psychology of Adjustment	
PSYC 0108	Psychology of Death and Dying	
PSYC 0110	Psychology of Intimate Relationships and Family (also HDEV 0021)	
PSYC 0127	Psychology of Women	
PSYC 0130	Human Sexuality	
PSYC 0150	Alcohol, Drugs and Society	
PSYC 0160	Psychology and Film	
PSYC 0180	Cultural Psychology	
SOC 0001	Introduction to Sociology	
SOC 0002	Social Problems	
SOC 0003	Race, Ethnicity and Inequality	
SOC 0004	The Family (also HDEV 0022)	
SOC 0005	Sociology of Women's Health	
SOC 0009	Introduction to Crime, Deviance, and Social Control	
SOC 0027	Sociology of Gender	
SOC 0047	Introduction to Hip Hop and Social Justice	
SOC 0110	Introduction to Social Justice	
Select 9 units from the following Social Sciences:		**9**
ADMJ 0050	Introduction to Administration of Justice	
AGRI 0198	Food, Society and the Environment	
AGRI 0215	Introduction to Agricultural Business and Economics	
BUS 0271	Law and Society	
ECON 0001A	Principles of Macroeconomics	
ECON 0001B	Principles of Microeconomics	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ETHN 0014	Introduction to Asian American Studies	
ETHN 0020	Introduction to African American Studies	
ETHN 0030	Introduction to Chicana/o Studies	
ETHN 0045	Federal Indian Law and Policy	
ETHN 0050	Ethnic Images in Film	
ETHN 0053	Introduction to Native American Studies	
GEOG 0002	Cultural Geography	
GEOG 0003	Geography of California	
GEOG 0005	World Regional Geography	
HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
HIST 0017A	History of the United States to 1877	
HIST 0017B	History of the United States since 1865	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0022	American Military History	
HIST 0023	Chicano/Mexican American History	
HIST 0024	Russian History - 10th Century to Present	
HIST 0025	Native American History	
HIST 0027	Women in American History	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (also WMST 2)	
POLS 0001	American Government and Politics	
POLS 0002	Introduction to Comparative Government	
POLS 0003	Introduction to International Relations	
POLS 0004	Russian and East European Political Systems	
POLS 0005	California Politics and Government	
POLS 0007	Politics of the Developing World	
POLS 0008	American Foreign Policy	
POLS 0009	Politics of the Middle East	
POLS 0012	Terrorism	

POLS 0016	Introduction to Political Theory
POLS 0027	Women and Politics in a Global Society
WMST 0001	Introduction to Women's Studies

Total Units   **21**

ETHN 0011. Introduction to Ethnic Studies
Units: 3
Formerly known as SSCI 10
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of the four core Ethnic populations of Asian Americans, Chicanx/Latinx Americans, African Americans, and Native Americans/American Indians within the United States. (CSU, UC)

ETHN 0014. Introduction to Asian American Studies
Units: 3
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse, institutional, cultural, and historical issues and experiences relating to the past and present life circumstances and intersectional identities of Asian Americans and Pacific Islanders. (CSU, UC)

ETHN 0020. Introduction to African American Studies
Units: 3
Formerly known as SSCI 20
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse institutional, cultural, and historical issues relating to the present life circumstances of African Americans in the United States. The course is interdisciplinary in nature and presents an overview of the cultural, economic, historic, social, and political issues in the life of African Americans in the United States centering African American voices. It will expose students of all ethnic backgrounds to the issues pertinent to the experience of African Americans. (CSU, UC)

ETHN 0028. Independent Study
Units: 1-3
Formerly known as SSCI 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ETHN 0030. Introduction to Chicana/o Studies
Units: 3
Formerly known as SSCI 16
Hours: 54 lecture
Introductory study of the Mexican American/Latino experience in the United States. Offers an interdisciplinary approach to the examination of art, literature, film, language, ethnomusicology, culinary culture, folklore, religion, gender and immigration. Examines race, ethnicity and culture in the Chicano/Latino community and the creation of Ethnic Studies programs in the United States. (CSU, UC)

ETHN 0045. Federal Indian Law and Policy
Units: 3
Formerly known as SSCI 45
Hours: 54 lecture
In-depth study of American Indian cultures and the impact of state and federal laws pertaining to tribal sovereignty and self-governance. Covers the effects of and resistance to colonization and cultural appropriation upon American Indian cultures and religions. Students gain a practical understanding of the legal, political and cultural challenges faced by American Indian tribal nations in our own region and across the country. (CSU, UC)

ETHN 0050. Ethnic Images in Film
Units: 3
Formerly known as SSCI 50
Hours: 54 lecture
Interdisciplinary approach to study the intersections of ethnic culture, race, socio-economic class, and gender in the United States through the medium of film. Examines film content for representation and accuracy, the multiple dimensions of media stereotypes, and the authenticity of diverse ethnic experiences with particular emphasis on gender, race and class. Note: not a course in film making or film criticism. (CSU, UC)

ETHN 0053. Introduction to Native American Studies
Units: 3
Formerly known as SSCI 41
Hours: 54 lecture
Survey of the cultures of Native American/American Indians within the United States focusing on the social, religious, economic, and artistic nature of various native groups. Examination of the antiquity, distribution, and linguistic history of native cultures. Addresses the contemporary status of native cultural traditions taking into account social change and adaptation. Emphasis on geographic, cultural, historical, and botanical environment of local native cultures. An optional field trip may be included. (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Read and discuss the influences of race, ethnicity, religion, economic status, gender, and sexual orientation.
- Evaluate and examine theories of race relations and the persistence of racism, classism, and sexism.
- Analyze the concepts of individual/institutional racism, cycles of oppression, matrix of domination and policies of exclusion.
- Identify, recognize and appreciate the extensive contributions of historically marginalized people in the formation of the U.S.

Fashion

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The Fashion program is designed to provide students with the necessary background for careers in the fashion industry or as a basis for advanced study. An AS degree, Certificate of Achievement and two Skills Certificates may be earned.

Faculty

Diana E. Higashi
Professor, Fashion
B.A., San Francisco State University

Fashion Advisory Committee

- Buckle, Roseville, CA
- Fashion Institute of Design & Merchandise (FIDM)
- Nordstrom, Roseville, CA
- Rocklin High School, Rocklin, CA
- Wandering Wardrobe, Colfax, CA
- Z Gallerie, Roseville, CA

Degrees/Certificates

Associate Degree

- Fashion Industries (p. 153)

Certificate of Achievement

- Fashion Industries (p. 153)
- Fashion Media (p. 153)

Skills Certificates

- Fashion Design (p. 154)
- Fashion Entrepreneurship (p. 154)
- Fashion Merchandising (p. 154)

Fashion Industries

AS Degree

The Fashion Industries program is designed to provide students with the necessary background for a variety of careers in the fashion industry or as a basis for advanced study. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
FASH 0001	Introduction to Fashion	3
FASH 0002	Fashion Analysis and Selection	3
FASH 0003	Textiles	3
FASH 0004A	Basic Clothing Construction	3
FASH 0007	Fashion Promotion	3
FASH 0012	Fashion History	3
FASH 0015	Clothing and Culture	3
FASH 0028	Independent Study	1
or FASH 0095	Internship in Fashion	
Select 9 units from the following:		**9**
FASH 0004B	Intermediate Clothing Construction	
FASH 0008	Fashion Illustration	
FASH 0013	Buying for the Fashion Industry	
FASH 0014	Visual Merchandising	
FASH 0017	Fashion Retailing	
FASH 0018	Sustainability in Fashion	
FASH 0019	Fashion Entrepreneurship	
FASH 0020	Mending and Alterations	
Total Units		**31**

Fashion Industries

Certificate of Achievement

The Fashion Industries program is designed to provide students with the necessary background for a variety of careers in the fashion industry or as a basis for advanced study.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
FASH 0001	Introduction to Fashion	3
FASH 0002	Fashion Analysis and Selection	3
FASH 0003	Textiles	3
FASH 0004A	Basic Clothing Construction	3
FASH 0007	Fashion Promotion	3
FASH 0012	Fashion History	3
FASH 0015	Clothing and Culture	3
FASH 0028	Independent Study	1
or FASH 0095	Internship in Fashion	
Select 9 units from the following:		**9**
FASH 0004B	Intermediate Clothing Construction	
FASH 0008	Fashion Illustration	
FASH 0013	Buying for the Fashion Industry	
FASH 0014	Visual Merchandising	
FASH 0017	Fashion Retailing	
FASH 0018	Sustainability in Fashion	
FASH 0019	Fashion Entrepreneurship	
FASH 0020	Mending and Alterations	
Total Units		**31**

Fashion Media

Certificate of Achievement

This certificate is designed to give the students the specific knowledge needed for entering the workforce in the area of fashion social media. Examples of jobs in this area include running social media sites for retailers, creating fashion blogs, and setting up web based fashion businesses.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
AAD 0012	Visual Communication (Also COMM 0012)	3
AAD 0070	Graphic Design II: Introduction to Digital Design	3
AAD 0075	Introduction to Photoshop (Also PHOT 0075)	3
BUS 0282	Digital Marketing Essentials	3
FASH 0001	Introduction to Fashion	3
FASH 0002	Fashion Analysis and Selection	3
FASH 0007	Fashion Promotion	3
FASH 0008	Fashion Illustration	3
PHOT 0060A	Beginning Photography	3
FASH 0019	Fashion Entrepreneurship	3
Total Units		**30**

Fashion Design
Skills Certificate
Designed to give students basic support knowledge and abilities required to enter the workforce. Focuses on skills relative to the fields of fashion design, fashion consulting, alterations, wardrobe styling and personal shopping. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 15 units from the following:		**15**
FASH 0002	Fashion Analysis and Selection	
FASH 0003	Textiles	
FASH 0004A	Basic Clothing Construction	
FASH 0004B	Intermediate Clothing Construction	
FASH 0008	Fashion Illustration	
FASH 0018	Sustainability in Fashion	
FASH 0020	Mending and Alterations	
Total Units		**15**

Fashion Entrepreneurship
Skills Certificate
Designed to give students basic support knowledge and abilities required to enter the workforce. Focuses on the process of creating, planning, and implementing a fashion business. Brick and mortar and online platforms will be explored. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Required Course:		
FASH 0001	Introduction to Fashion	3
FASH 0019	Fashion Entrepreneurship	3
Select 9 units from the following:		**9**

Code	Title	Units
AAD 0070	Graphic Design II: Introduction to Digital Design	
BUS 0241	Innovation Concepts for Starting a Small Business	
BUS 0260	Introduction to Business	
FASH 0002	Fashion Analysis and Selection	
FASH 0004B	Intermediate Clothing Construction	
FASH 0007	Fashion Promotion	
FASH 0008	Fashion Illustration	
FASH 0013	Buying for the Fashion Industry	
FASH 0017	Fashion Retailing	
FASH 0018	Sustainability in Fashion	
FASH 0020	Mending and Alterations	
Total Units		**15**

Fashion Merchandising
Skills Certificate
Designed to give students basic support knowledge and abilities required to enter the workforce. Focuses on skills relative to the fields of fashion retail, fashion merchandising, wardrobe styling and personal shopping. This is a specialty skills certificate designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
FASH 0001	Introduction to Fashion	3
FASH 0002	Fashion Analysis and Selection	3
FASH 0013	Buying for the Fashion Industry	3
or FASH 0017	Fashion Retailing	
FASH 0007	Fashion Promotion	3
FASH 0014	Visual Merchandising	3
Total Units		**15**

Courses
Understanding course descriptions (p. 311)

FASH 0001. Introduction to Fashion
Units: 3
Hours: 54 lecture
Exploration of the diversity and complexities of the fashion business. Career opportunities and qualifications are studied. The relationship between the fashion world and the public, including sources of fashion, influences on fashion, and fashion prediction and promotion, are addressed. (CSU)

FASH 0002. Fashion Analysis and Selection
Units: 3
Hours: 54 lecture
Consideration of the psychological, sociological, and physical factors which have an impact on dress. Elements and principles of design as they relate to clothing and appearance. Consumer issues related to the selection and use of clothing. (CSU)

FASH 0003. Textiles

Units: 3

Hours: 54 lecture

Introduction to the study of characteristics and uses of natural and synthetic fibers and fabrics. Emphasizes evaluation and selection of textile products. (CSU, UC)

FASH 0004A. Basic Clothing Construction

Units: 3

Hours: 108 (27 lecture, 81 laboratory)

Techniques of garment construction; use of commercial patterns, pattern alterations, and fitting techniques; comparison of construction techniques and costs between ready-to-wear and custom-made clothing; the social and psychological aspects of clothing selection, with emphasis on basic design principles. (CSU)

FASH 0004B. Intermediate Clothing Construction

Units: 3

Prerequisite: Completion of FASH 4A with grade of "C" or better

Hours: 108 (27 lecture, 81 laboratory)

Intermediate and advanced techniques of garment construction. Designed for individuals with basic knowledge of sewing principles. Development and improvement of skills in working with designer patterns; techniques of handling specialty fabrics, including knit fabrics; use of sergers. (CSU)

FASH 0007. Fashion Promotion

Units: 3

Hours: 54 lecture

Emphasis on the role of promotion in the selling and advertising of fashion goods. All avenues of fashion promotion explored and evaluated including: advertising, publicity, special events, fashion show production, direct marketing and target market research. Promotion skills developed through the planning and promotion of special events. (CSU)

FASH 0008. Fashion Illustration

Units: 3

Hours: 108 (36 lecture, 72 laboratory)

Illustration techniques with emphasis on figure proportions used in the fashion industry. Various media used to communicate fashion and apparel details. Illustration software presented with focus on technical drawings. (CSU)

FASH 0012. Fashion History

Units: 3

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

Fashion and adornment through the ages to the present. Emphasis on the historical flow and how fashion themes are reinterpreted or influence designs in later periods including the present. Provides a basis for understanding and appreciating fashion as well as how the times and environment affect styling, colors, fabric and details. Field trip may be required. (CSU)

FASH 0013. Buying for the Fashion Industry

Units: 3

Hours: 54 lecture

Examines the roles and responsibilities of fashion industry buyers and merchandising managers that must balance the needs of retailers, objectives of vendors, and preferences of consumers. The roles of trend forecasting, inventory analysis and assortment planning are discussed as they relate to the fashion industry. Introduction to domestic and international fashion markets and market weeks. Prepares students for fashion industry careers as vendors, buyers, or retailers of fashion goods and services. (CSU)

FASH 0014. Visual Merchandising

Units: 3

Hours: 72 (36 lecture, 36 activity)

Introduces contemporary display techniques, equipment, and materials for designing three-dimensional product presentations within the retail environment. Emphasis is placed on fashion items and includes the use of mannequins and dress forms. Students complete a window display on campus. Field trips required. (CSU)

FASH 0015. Clothing and Culture

Units: 3

Hours: 54 lecture

Study of clothing and its relationship to culture, society, and the individual. The psychological and sociological influences of dress, the physical aspects of appearance, and the influences of gender, sexuality, ethnicity, and class on the development of personal identity are explored through the study of style in traditional cultures, popular culture and everyday life. (CSU)

FASH 0017. Fashion Retailing

Units: 3

Hours: 54 lecture

Explores store and non-store fashion retailing formats, structure, purpose, as well as the challenges impacting the ways retailers interact with today's consumers. Students gain an understanding of the retail industry from a fashion-oriented perspective. Methods of franchising, licensing, branding, and retail terminology are introduced. Students will also gain an understanding of merchandise planning and management, promotional strategies, brand image, human resource management, store layout, and customer service. (CSU)

FASH 0018. Sustainability in Fashion

Units: 3

Hours: 54 lecture

Exploration of the tenets of sustainability and social change in fashion. Diversity, equity, inclusion, and social justice are analyzed in product development, operations, and promotion of fashion. Fashion brand strategies to decrease the environmental impact of fashion products. Longevity of use, supply chain transparency, regulations, and media coverage all along the fashion process are addressed. (CSU)

FASH 0019. Fashion Entrepreneurship

Units: 3

Hours: 54 lecture

Examines the skills needed to conceive, finance, open, and operate a successful fashion business. It addresses the creation of a small business specific to fashion retail or apparel design and manufacturing. Topics include recognizing and creating business opportunities, as well as marketing and selling techniques. A model business plan is developed by exploring resources necessary to be a successful entrepreneur in the fashion industry. (CSU)

FASH 0020. Mending and Alterations

Units: 3

Prerequisite: Completion of FASH 4A with grade of "C" or better

Hours: 108 (27 lecture, 81 laboratory)

Focuses on developing the skills needed to learn alterations and mending clothes. It includes the study of fit analysis of different types of Ready-To-Wear apparel created in standard sizes and learning to make alterations to the apparel to fit different body types. The course will cover the techniques of mending woven and knit fabrics. (CSU)

FASH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

FASH 0095. Internship in Fashion
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Demonstrate theoretical and practical knowledge of fashion design and merchandising.
- Create elements of fashion merchandising and design that reflect creative expression.
- Critique elements and principles of design in Fashion design and merchandising.
- Develop skills in teamwork through group projects.
- Use computer skills to work with fashion industry software.

Fire Technology
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Department Coordinator
Jason Hemler

Department Office
B 3, Rocklin Campus

Overview

The Fire Technology program prepares students for a career in the fire service and provides educational and training opportunities for employed and volunteer firefighters.

The Associate Degree and Certificate programs incorporate the standardized Fire Technology curriculum identified by the offices of the California State Chancellor and State Fire Marshal. Elective courses are those developed under the guidelines of related fire service training and educational programs such as CFSTES (California Fire Service Training and Education System), DOT (Department of Transportation), FEMA (Federal Emergency Management Agency), F.S.T.E.P. (Fire Service Training and Education Program) and NFA (National Fire Academy).

Most Fire Technology courses, up to 30 units, may be transferred to CSU.

Faculty
Jason Hemler
Assistant Professor/Coordinator, Fire Technology
B.S., California State University, Long Beach
M.S., California State University, Long Beach

German Sierra
Assistant Professor, Fire Technology
A.A., Foothill College
A.S., Foothill College

Fire Technology Advisory Committee
- Nevada County Fire Chiefs, Nevada County, CA
- Nevada County Training Officers, Nevada County, CA
- Nevada/Placer County (East Side) Fire Chiefs, Nevada and Placer Counties, CA
- Nevada/Placer County (East Side) Training Officers, Nevada and Placer Counties, CA
- Placer County Fire Chiefs, Placer County, CA
- Placer County Training Officers, Placer County, CA
- USFS-Tahoe National Forest, Nevada City, CA

Firefighter Academy

The Firefighter Academy is offered through partnerships with the Placer and Nevada County Fire Chiefs' Associations and The City of Roseville Fire Department. Sierra College is recognized by the California State Fire Marshal and the State Board of Fire Services as an Accredited Regional Training Program.

Required Academy prerequisites are FIRE 0001 and HSCI 0002. Students accepted into the Academy must enroll in FIRE 0100 (576 hours) and FIRE 0100A (80 hours).

The Firefighter Academy is offered in two different formats: 1) Full-time Monday through Friday and 2) an extended format (evenings and weekend classes), which enables students to maintain employment while preparing for a career in the fire service. The fall Academy is held late July through December, in the spring, January through May, and at our Nevada County Campus January to May. The required 80% academic standard for the Firefighter I Academy is rigorous. Candidates need to be aware at the outset that this will place extraordinary demands on their time and resources.

Individuals completing the Academy and passing the certification testing process (FIRE 101), which includes State Fire Training didactic and manipulative skills testing, may obtain their State and National certified Firefighter I Certificate.   The Fire Academy also incorporates all Firefighter II training requirements and after successfully completing the certification testing process, the task book and experience requirement, one year as a volunteer or reserve firefighter or six months as a full-time paid firefighter with a California fire department, candidates may obtain Firefighter II certification. The California State Fire Marshal's Firefighter I and II curriculum is nationally accredited by the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualifications (Pro Board). Other Certificates of Training awarded upon completion of the Academy include: (subject to change)

- Introduction to the Incident Command System—IS 100 and IS 200
- National Incident Management System (NIMS) IS 700A, and IS 800
- Confined Space Awareness
- Hazardous Materials First Responder—Operational
- Hazardous Materials First Responder—Decontamination
- Fire Control 3B
- Fire Control 4
- Firefighter Survival
- Vehicle Extrication
- CAL FIRE Basic Wildland Firefighter
- S-130 Basic Wildland Firefighter
- S-190 Beginning Fire Behavior
- L-180 Human Factors in the Wildland Fire Service
- S-134 LCES

Acceptance into the Fire Academy is by an application process which includes a physical examination upon acceptance into the Academy. Applications for the Academy are available in April for the fall academy and October for the spring academy.

FIREFIGHTER CERTIFICATION TESTING
This 56 hour course is designed to meet State Fire Training (SFT) requirements for Firefighter 1 and Firefighter II including capstone knowledge and skills necessary for Firefighter I & II certification. Upon successful completion, students receive a pass letter from SFT and a Firefighter I & II pass certificate from the college.

FIRE 101	Firefighter 1 & 2 Certification Testing	1

FIREFIGHTER II ACADEMY
This course is designed to meet the State Fire Marshal's training and certification requirements for Firefighter II.

Fire 102	Firefighter II Academy	4.5

Fire Company Officer Courses

The following Fire Technology courses are part of the State Fire Marshal's certification track for FIRE OFFICER. These courses are designed for individuals currently employed as professional or volunteer firefighters. Individuals without this experience will be unable to contribute to the educational process and utilize the information in a timely manner.

Code	Title	Units
FIRE 0174	Human Resource Management for Company Officers - CO 2A	2
FIRE 0175	General Administrative Functions for Company Officers - CO 2B	1
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C	2
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D	1.5
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E	1.5
FIRE 0179	Fire and Emergency Services Instructor 1	1.5

Chief Officer Courses

The following Fire Technology courses are part of the State Fire Marshal's certification track for CHIEF FIRE OFFICER and are currently part of Sierra College's curriculum. These courses are intended for individuals currently employed as professional or volunteer fire officers who hold a Chief Officer position. Individuals without this experience will be unable to contribute to the educational process and utilize the information in a timely manner.

Code	Title	Units
FIRE 0190	Human Resource Management for Chief Fire Officers - 3A	1
FIRE 0191	Budget and Fiscal Responsibilities for Chief Fire Officers - 3B	1
FIRE 0192	General Administrative Functions for Chief Fire Officers - 3C	1
FIRE 0193	Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents	2

Incident Command Courses

The following courses are part of the State Fire Marshal's certification track for Company Officer, Chief Fire Officer and Executive Chief Fire Officer. These courses are intended for individuals currently employed as full-time or volunteers firefighters seeking State Fire Training certification or general knowledge of the Incident Command System.

Code	Title	Units
FIRE 0241	I-200: Incident Command System	0.5
FIRE 0242	I-300: Intermediate ICS for Expanding Incidents	1
FIRE 0243	I-400: Advanced ICS for Complex Incidents	0.5

Fire Training Instructor Courses

The following courses are intended for firefighters seeking to become certified State Fire Marshal Fire Training Instructors.

Code	Title	Units
FIRE 0179	Fire and Emergency Services Instructor 1	1.5
FIRE 0180	Fire and Emergency Services Instructor 2	1.5

Fire Investigator Courses

These courses are intended for firefighters seeking to become certified State Fire Marshal Fire Investigators.

Code	Title	Units
FIRE 0181	Fire Investigation 1A, Basic Fire Investigation	2
FIRE 0182	Fire Investigation 1B, Evidence and Documentation	1.5
FIRE 0183	Fire Investigation 1C, Preparation for Legal Proceedings	2

Degrees/Certificates

Associate Degree

- Fire Company Officer (p. 158)
- Fire Technology (p. 158)

Certificate of Achievement

- Fire Academy (p. 159)
- Fire Company Officer (p. 159)
- Fire Technology (p. 158)
-

Fire Company Officer
AS Degree

Successful completion of the Degree, Fire Officer/Company Officer, prepares the student with the knowledge, skills and abilities necessary to promote and be a successful first-line supervisor. The program includes California State recognized course work that directly benefit students who may wish to promote within the fire service to a supervisory position. Some variation in degree requirements may exist for a particular program; therefore, it is essential that students refer to the catalog of their intended institution and contact a counselor to ensure that all required coursework is completed. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)
-

Required Courses

Code	Title	Units
FIRE 0078	Fire Tactics and Strategy	3
FIRE 0097	Ethical Leadership in the Classroom	0.5
FIRE 0172	Intermediate Wildland Fire Behavior S-290	2
FIRE 0173	Hazardous Materials - Incident Commander	1
FIRE 0174	Human Resource Management for Company Officers - CO 2A	2
FIRE 0175	General Administrative Functions for Company Officers - CO 2B	1
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C	2
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D	1.5
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E	1.5
FIRE 0179	Fire and Emergency Services Instructor 1	1.5
FIRE 0241	I-200: Incident Command System	0.5
Select 3 units from the following:		**3**
BUS 0265	Business Communications	
BUS 0276	Organizational Behavior and Human Relations	
BUS 0277	Human Resource Management	
ENGL 0001A	Academic Reading and Writing	

ENGL 0012	Writing in the Workplace	
Total Units		**19.5**

Fire Technology
AA or AS

For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
FIRE 0001	Principles of Fire and Emergency Services	3
FIRE 0003	Fire Behavior and Combustion	3
FIRE 0004	Fire Protection Equipment and Systems	3
FIRE 0005	Fire Prevention Technology	3
FIRE 0008	Building Construction for Fire Protection	3
FIRE 0010	Principles of Fire and Emergency Services Safety and Survival	3
Select 12 units from the following:		**12**
HSCI 0002	Emergency Medical Technician	
HSCI 0007	Emergency Medical Responder	
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	
FIRE 0007	Fundamentals of Fire Service Operations	
FIRE 0050	Basic Wildland Firefighter Training	
FIRE 0073	Fire Hydraulics	
FIRE 0074	Fire Apparatus and Equipment	
FIRE 0075	Wildland Fire Control	
FIRE 0078	Fire Tactics and Strategy	
FIRE 0079	Fire Investigation	
FIRE 0080	Introduction to Public Safety Dispatch (ALso ADMJ 0078, HSCI 0080)	
FIRE 0095	Internship in Fire Technology	
FIRE 0098	Fire Technology Career Pathways	
FIRE 0099	Introduction to Fire Academy	
FIRE 0100	Firefighter Academy	
FIRE 0100A	Fire Academy Physical Training	
FIRE 0101	Firefighter Certification Testing	
FIRE 0102	Firefighter II Training	
FIRE 0170	Hazardous Materials - Operational Level	
FIRE 0171	Introduction to Wildland Fire Behavior S-190	
FIRE 0172	Intermediate Wildland Fire Behavior S-290	

FIRE 0173	Hazardous Materials - Incident Commander	
FIRE 0174	Human Resource Management for Company Officers - CO 2A	
FIRE 0175	General Administrative Functions for Company Officers - CO 2B	
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C	
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D	
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E	
FIRE 0179	Fire and Emergency Services Instructor 1	
FIRE 0180	Fire and Emergency Services Instructor 2	
FIRE 0181	Fire Investigation 1A, Basic Fire Investigation	
FIRE 0182	Fire Investigation 1B, Evidence and Documentation	
FIRE 0183	Fire Investigation 1C, Preparation for Legal Proceedings	
FIRE 0190	Human Resource Management for Chief Fire Officers - 3A	
FIRE 0191	Budget and Fiscal Responsibilities for Chief Fire Officers - 3B	
FIRE 0192	General Administrative Functions for Chief Fire Officers - 3C	
FIRE 0193	Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents	
FIRE 0241	I-200: Incident Command System	
FIRE 0242	I-300: Intermediate ICS for Expanding Incidents	
FIRE 0243	I-400: Advanced ICS for Complex Incidents	
SPAN 0019	Spanish for Public Safety	
Total Units		**30**

Fire Academy
Certificate of Achievement

This certificate program provides a comprehensive understanding of the skills necessary for successful employment in the Fire Service industry. This program is designed to meet the needs of students interested in seeking entry-level firefighting positions by completing a California State Fire Training Accredited Region Training Fire Academy. Fire Academy Certificate of Achievement Certification includes the completion of FIRE 0100 and FIRE 0100A. Corequisites for FIRE 100 include: FIRE 1 and HSCI 2 (Fire Protection Organization & Emergency Medical Technician). Career opportunities include: Seasonal Firefighter, Intern Firefighter, Volunteer Firefighter, and Career Firefighter. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
FIRE 0100	Firefighter Academy	17
FIRE 0100A	Fire Academy Physical Training	2.5
Total Units		**19.5**

Fire Company Officer
Certificate of Achievement

This certificate program provides a comprehensive understanding of the skills necessary for success as a Company Officer/first line supervisor in the Fire Service industry. This program is designed to meet the needs of in-service professionals interested in promoting to a supervisory position and for those seeking to advance their knowledge in this area. Fire Company Officer Certificate of Achievement Certification includes the completion of the courses listed below. Career opportunities include: Fire Captain, Fire Engineer/Driver-Operator, or Lieutenant.

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
FIRE 0078	Fire Tactics and Strategy	3
FIRE 0097	Ethical Leadership in the Classroom	0.5
FIRE 0172	Intermediate Wildland Fire Behavior S-290	2
FIRE 0173	Hazardous Materials - Incident Commander	1
FIRE 0174	Human Resource Management for Company Officers - CO 2A	2
FIRE 0175	General Administrative Functions for Company Officers - CO 2B	1
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C	2
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D	1.5
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E	1.5
FIRE 0179	Fire and Emergency Services Instructor 1	1.5
FIRE 0241	I-200: Incident Command System	0.5
Total Units		**16.5**

Fire Technology
Certificate of Achievement

A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
FIRE 0001	Principles of Fire and Emergency Services	3
FIRE 0003	Fire Behavior and Combustion	3
FIRE 0004	Fire Protection Equipment and Systems	3
FIRE 0005	Fire Prevention Technology	3
FIRE 0008	Building Construction for Fire Protection	3

FIRE 0010	Principles of Fire and Emergency Services Safety and Survival	3
Select 12 units from the following:		**12**
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	
FIRE 0007	Fundamentals of Fire Service Operations	
FIRE 0050	Basic Wildland Firefighter Training	
FIRE 0073	Fire Hydraulics	
FIRE 0074	Fire Apparatus and Equipment	
FIRE 0075	Wildland Fire Control	
FIRE 0078	Fire Tactics and Strategy	
FIRE 0079	Fire Investigation	
FIRE 0080	Introduction to Public Safety Dispatch (ALso ADMJ 0078, HSCI 0080)	
FIRE 0095	Internship in Fire Technology	
FIRE 0098	Fire Technology Career Pathways	
FIRE 0099	Introduction to Fire Academy	
FIRE 0100	Firefighter Academy	
FIRE 0100A	Fire Academy Physical Training	
FIRE 0101	Firefighter Certification Testing	
FIRE 0102	Firefighter II Training	
FIRE 0170	Hazardous Materials - Operational Level	
FIRE 0171	Introduction to Wildland Fire Behavior S-190	
FIRE 0172	Intermediate Wildland Fire Behavior S-290	
FIRE 0173	Hazardous Materials - Incident Commander	
FIRE 0174	Human Resource Management for Company Officers - CO 2A	
FIRE 0175	General Administrative Functions for Company Officers - CO 2B	
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C	
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D	
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E	
FIRE 0179	Fire and Emergency Services Instructor 1	
FIRE 0180	Fire and Emergency Services Instructor 2	
FIRE 0181	Fire Investigation 1A, Basic Fire Investigation	
FIRE 0182	Fire Investigation 1B, Evidence and Documentation	
FIRE 0183	Fire Investigation 1C, Preparation for Legal Proceedings	
FIRE 0190	Human Resource Management for Chief Fire Officers - 3A	
FIRE 0191	Budget and Fiscal Responsibilities for Chief Fire Officers - 3B	
FIRE 0192	General Administrative Functions for Chief Fire Officers - 3C	

FIRE 0193	Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents	
FIRE 0241	I-200: Incident Command System	
FIRE 0242	I-300: Intermediate ICS for Expanding Incidents	
FIRE 0243	I-400: Advanced ICS for Complex Incidents	
SPAN 0019	Spanish for Public Safety	
Total Units		**30**

Courses

Understanding course descriptions (p. 311)

FIRE 0001. Principles of Fire and Emergency Services
Units: 3
Hours: 54 lecture
Provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. (C-ID FIRE 100X) (CSU-with unit limitation)

FIRE 0003. Fire Behavior and Combustion
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. (C-ID FIRE 140X) (CSU-with unit limitation)

FIRE 0004. Fire Protection Equipment and Systems
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Provides information relating to the features of design and operation of fire alarm systems, water-based suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers in accordance with local, state and national guidelines. (C-ID FIRE 120X) (CSU-with unit limitation)

FIRE 0005. Fire Prevention Technology
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. (C-ID FIRE 110X) (CSU-with unit limitation)

FIRE 0007. Fundamentals of Fire Service Operations
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Fundamentals of fire department organization, management, and resources, and the use of those resources to control various emergencies. Includes safety, operational considerations, evaluation of tactics and strategies with a focus on making behavioral changes for positive outcomes. (CSU-with unit limitation)

FIRE 0008. Building Construction for Fire Protection
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Components of building construction related to firefighter and life safety. Elements of construction and design of structures as key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. (C-ID FIRE 130X) (CSU-with unit limitation)

FIRE 0010. Principles of Fire and Emergency Services Safety and Survival
Units: 3
Hours: 54 lecture
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. (C-ID FIRE 150X) (CSU-with unit limitation)

FIRE 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU-with unit limitation)

FIRE 0050. Basic Wildland Firefighter Training
Units: 3
Hours: 61 (54 lecture, 7 laboratory)
Training in proper techniques to effectively and safely perform as a member of a fire crew in controlling and suppressing wildfire. Includes physics of fire behavior, complexities and inter-relationships of weather, topography, and wildland fuel beds in fire behavior, Incident Management Organization, personal safety, situational awareness and hazard recognition. Meets NWCG S-130, S-190, S-134, L-180 and I-100 requirements. (CSU-with unit limitation)

FIRE 0073. Fire Hydraulics
Units: 3
Hours: 54 lecture
Investigate the principles and characteristics of water and water flow, water supply systems, fire apparatus and pumps, and fire streams. Review of applied mathematics; hydraulic laws; and application of formulas and mental calculation to hydraulics and water supply problems, as applied to the fire service. (CSU-with unit limitation)

FIRE 0074. Fire Apparatus and Equipment
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Principles and techniques for maintaining and operating fire service pumping and other mobile apparatus. Fire service equipment and apparatus troubleshooting; principles and techniques of preventive maintenance; construction and operation of fire service pumps and pump accessories; basic highway operating techniques for fire apparatus; fire apparatus specifications and testing procedures. (CSU-with unit limitation)

FIRE 0075. Wildland Fire Control
Units: 3
Hours: 54 lecture
Principles and techniques of wildland fire prevention, behavior, control, and suppression. Covers legal areas of wildland fire protection, mutual aid, fire investigating and reporting methods, and ecology factors of wildland and urban interface fires. Complies with S-190, Basic Wildland Fire Behavior certification. (CSU-with unit limitation)

FIRE 0078. Fire Tactics and Strategy
Units: 3
Prerequisite: Completion of FIRE 1 with grade of "C" or better or equivalent as determined by the Fire Technology Program Coordinator
Hours: 54 lecture
Provides the principles of fire control through utilization of manpower, equipment, extinguishing agents, fire command and control procedures. (C-ID FIRE 160X) (CSU)

FIRE 0079. Fire Investigation
Units: 3
Advisory: Completion of FIRE 1 and 8 with grades of "C" or better
Hours: 54 lecture
Introduces the general practices involved in fire investigation. Topics include determining the cause of fires (accidental, suspicious, and incendiary); types of fires; related laws; introduction to incendiary fires; motives for starting fires; recognizing and preserving evidence; interviewing witnesses and suspects; and arrest, detention, and court procedures. (CSU)

FIRE 0080. Introduction to Public Safety Dispatch
Units: 3
Also known as ADMJ 78 and HSCI 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

FIRE 0095. Internship in Fire Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

FIRE 0097. Ethical Leadership in the Classroom
Units: 0.5
Formerly known as FIRE 639
Hours: 9 lecture
An examination of fundamental ethical values of fire service instructors by exploring examples of ethical behavior in the classroom environment. Includes basic concepts, terms and theories of ethical decision making, code of ethics, and concepts in ethical leadership. (C-ID FIRE 251X) (CSU)

FIRE 0098. Fire Technology Career Pathways
Units: 2
Hours: 40 lecture
Career exploration in fire technology. Includes educational planning of available degree programs, labor market research, and the hiring process: development of a resume, background investigations, personal history statements, interview dynamics, and hiring examinations. (not transferable)

FIRE 0099. Introduction to Fire Academy
Unit: 1
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 32 (11 lecture, 21 laboratory)
Designed to prepare students with the basic knowledge and skills necessary to succeed in the Firefighter I Academy. Topics include: ropes and knots, donning and doffing SCBA's, fire hose rolls and loads, physical fitness, fire department duties, responsibilities and conduct. (not transferable)

FIRE 0100. Firefighter Academy
Units: 17
Prerequisite: Completion of FIRE 1 and HSCI 2 with grades of "C" or better, possession of a current Emergency Medical Technician certificate, and submission of a physician's physical verification, including a spirometry test
Corequisite: Concurrent enrollment in FIRE 100A
Advisory: Completion of FIRE 99 with grade of "C" or better
Hours: 580 (181 lecture, 399 laboratory)
Designed for entry level firefighters. Approved by the California State Board of Fire Services and California State Fire Marshal's Office. Fulfills all educational and training requirements for Firefighter I and II. Leads to State and/or National Firefighter I certification and upon completion of experience requirement, certification of Firefighter II. Includes: Structural Firefighting, Wildland Firefighting, Hazardous Materials, Incident command system, Auto Extrication, and Firefighter Survival. Certificate of Completion issued with grade of "C" or better in both FIRE 100 and 100A. Physically demanding program. Materials fee required. (not transferable)

FIRE 0100A. Fire Academy Physical Training
Units: 2.5
Formerly known as KIN 97
Corequisite: Concurrent enrollment in FIRE 100
Hours: 80 (28 lecture, 52 laboratory)
Designed for Firefighter I Academy Trainees, emphasizing lifetime fitness, principles of physical fitness, individual fitness programs, managing body composition, stress indicators and management, nutrition, and development of muscular strength and cardiovascular efficiency. (CSU)

FIRE 0101. Firefighter Certification Testing
Unit: 1
Prerequisite: Completion of FIRE 100 with grade of C or better or, 1) A signed statement by the agency's Fire Chief or designee stating the sponsored student has completed all SFT training requirements and skills sheets for Firefighter-1, or 2) Documentation of approval from the California State Fire Training for a certification retest, or 3) Completion of a Firefighter I academy and applying for certification testing
Hours: 56 (8 lecture, 48 laboratory)
Prepares students to meet the State Fire Training (SFT) requirements for Firefighter I (FFI) and II (FFII) including the capstone knowledge and skills necessary to pass FFI FFII. Upon successful completion, students receive a pass letter from SFT and a FFI and FFII pass certificate from the college. (pass/no pass grading) (not transferable)

FIRE 0102. Firefighter II Training
Units: 4.5
Prerequisite: Certified Firefighter I or equivalent as determined by the Fire Technology Program Coordinator; possession of a current Emergency Medical Technician certificate; and submission of a physician's physical verification, including a spirometry test
Hours: 128 (58 lecture, 70 laboratory)
Provides the skills and knowledge needed for the entry level firefighter to perform his/her duties safely, effectively, and competently. Covers general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, prevention, preparedness and maintenance. (not transferable)

FIRE 0103. Cal Fire Basic Firefighter
Units: 9
Prerequisite: Completion of FIRE 170 with grade of "C" or better, and possess Public Safety First Aid and CPR certification or equivalent as determined by the Program Coordinator
Hours: 219 (139.5 lecture, 79.5 laboratory)
Provides the skills and knowledge needed for the entry-level firefighter to perform his/her duties safely, effectively, and competently. The curriculum is based on CAL FIRE policy, the 2013 edition of NFPA 1001 Standard for Firefighter Professional Qualifications, the 2012 edition of NFPA 1051 Standard for Wildland Firefighter Professional Qualifications, and the 2008 edition of NFPA 472 Standard for Competence of responders to Hazardous Materials/Weapons of Mass Destruction Incidents. (not transferable)

FIRE 0170. Hazardous Materials - Operational Level
Units: 0.5,1
Formerly known as FIRE 41
Hours: 16 lecture for 0.5 unit; 24 lecture for 1 unit
First responder course covering common alarms, roles and responsibilities, legal aspects, exposure and response safety, medical surveillance, recognition and identification, basic chemistry, personal protective equipment, scene management, preincident planning and table-top exercises. Meets federal and state training requirements. (CSU-with unit limitation)

FIRE 0171. Introduction to Wildland Fire Behavior S-190
Units: 0.5
Hours: 9 lecture
Wildland fire behavior factors important for understanding fire spread principles and applying safe and effective suppression techniques. Meets standards prescribed by the National Wildfire Coordinating Group and the CA Incident Command Certification System for S-190 certification. (not transferable)

FIRE 0172. Intermediate Wildland Fire Behavior S-290
Units: 2
Prerequisite: Completion of FIRE 171 with grade of "C" or better or a certified S-190 course as prescribed by the National Wildfire Coordinating Group
Hours: 40 lecture
Aligns with S-290 Intermediate Fire Behavior of the National Wildfire Coordinating Group (NWCG). Provides professional development related to the topic of wildland fire behavior. Provides instruction in the identification and prediction of wildland fire behavior in various fuel types and under varying weather conditions. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Inter-agency Incident Management System. (C-ID FIRE 241X) (not transferable)

FIRE 0173. Hazardous Materials - Incident Commander
Unit: 1
Formerly known as FIRE 202
Prerequisite: Completion of FIRE 241 with grade of "C" or better or a certified Hazardous Materials First Responder Operational course; and I-100 (Basic Incident Command System) or equivalent as determined by the Fire Technology Program Coordinator
Hours: 24 lecture
Provides participants with the capability to assume the role of Incident Commander, as defined in the Occupational Safety and Health Act Hazardous Waste Operations (OSHA HAZWOPR) regulation, during an emergency response to an actual or potential hazardous materials release. (C-ID FIRE 232X) (not transferable)

FIRE 0174. Human Resource Management for Company Officers - CO 2A
Units: 2
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Completion of California State Firefighter II educational requirements
Hours: 40 lecture
Aligns with Company Officer 2A of the Company Officer Program. This course provides information on the use of human resources to accomplish assignments, evaluating member performance, supervising personnel, and integrating health and safety plans, policies, and procedures into daily activities as well as the emergency scene. (C-ID FIRE 200X) (CSU-with unit limitation)

FIRE 0175. General Administrative Functions for Company Officers - CO 2B
Unit: 1
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Advisory: Completion of FIRE 174 with grade of "C" or better
Hours: 24 lecture
Aligns with Company Officer 2B of the Company Officer Program. Provides information on general administrative functions and the implementation of department policies and procedures and addresses conveying the fire department's role, image, and mission to the public. (C-ID FIRE 210X) (CSU-with unit limitation)

FIRE 0176. Fire Inspections and Investigation for Company Officers - CO 2C
Units: 2
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Hours: 40 lecture
Aligns with Company Officer 2C of the Company Officer Program. Provides an overview of the information necessary to conduct inspections, identify hazards and address violations, performing a fire investigation to determine preliminary cause and to secure the incident scene and preserve evidence. (C-ID FIRE 220X) (CSU-with unit limitation)

FIRE 0177. All-Risk Command Operations for Company Officers - CO 2D
Unit: 1.5
Prerequisite: Completion of California State Firefighter II educational requirements; completion of FIRE 173 and FIRE 241 with grades of "C" or better
Hours: 40 (24 lecture, 16 laboratory)
Designed for the working firefighter. Provides information on conducting incident size-up; developing and implementing an initial plan of action involving single and multi-unit operations for various types of emergency incidents to mitigate the situation following agency safety procedures; conducting pre-incident planning; and developing and conducting a post-incident analysis. One of a series of courses required for Company Officer certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0178. Wildland Incident Operations for Company Officers - CO 2E
Unit: 1.5
Prerequisite: Completion of California State Firefighter II educational requirements; completion of FIRE 172 and FIRE 177 with grades of "C" or better or provide copies of S-290 (classroom delivery only) and HAZ MAT Incident Commander certifications, or equivalent as determined by the instructor
Hours: 40 (24 lecture, 16 laboratory)
Designed for the working firefighter, this course provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating an incident action plan, and completing incident records and reports. This Company Officer course is one of a series required for Company Officer certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0179. Fire and Emergency Services Instructor 1
Unit: 1.5
Advisory: IS-100.B (Introduction to the Incident Command System) and IS-700.A (FEMA - National Incident Management System)
Hours: 40 (24 lecture, 16 laboratory)
Designed for working firefighters, this course provides the skills and knowledge needed for the entry level professional instructor to perform his or her duties safely, effectively, and competently. The curriculum is based on the 2012 edition of NFPA 1041 Standard for Fire Service Instructor Professional Qualifications. At the end of this course, candidates for Instructor I certification are able to teach and deliver instruction from a prepared lesson plan utilizing instructional aids and evaluation instruments. The Instructor I is also able to adapt a lesson plan and complete the reporting requirements to the local jurisdiction. Course is one of a series required for Company Officer Certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0180. Fire and Emergency Services Instructor 2
Unit: 1.5
Prerequisite: Completion of FIRE 179 with grade of "C" or better
Advisory: IS-100.B (Introduction to the Incident Command System) and IS-700.A (FEMA - National Incident Management System)
Hours: 40 (24 lecture, 16 laboratory)
Designed for those seeking to become fire service instructors and provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. At the end of this course, candidates for Instructor II certification are able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II is also able to analyze resources and formulate a program budget. (CSU-with unit limitation)

FIRE 0181. Fire Investigation 1A, Basic Fire Investigation
Units: 2
Formerly known as FIRE 154
Prerequisite: Completion of FIRE 3 with grade of "C" or better
Hours: 39.5 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on securing the fire scene and determining the origin and cause of the fire. Topics include responsibilities of a fire investigator, securing the fire ground, conducting an exterior and interior survey, analyzing fire patterns, interpreting individual fire patterns, discriminating the effects of explosions, examining and removing fire debris, reconstructing the area of origin, inspecting the performance of building systems. (not transferable)

FIRE 0182. Fire Investigation 1B, Evidence and Documentation
Unit: 1.5
Formerly known as FIRE 155
Prerequisite: Completion of FIRE 181 with grade of "C" or better
Hours: 33.5 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on scene documentation and evidence collection/preservation. Topics include photographing the scene, diagramming the scene, constructing investigative notes, processing evidence and establishing chain of custody, processing victims and fatalities, selecting evidence for analysis, maintaining a chain of custody, preparing a fire investigation report, and disposing of evidence. (not transferable)

FIRE 0183. Fire Investigation 1C, Preparation for Legal Proceedings
Units: 2
Prerequisite: Completion of FIRE 181, 182 and ADMJ 110 with grades of "C" or better
Hours: 40 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on legal considerations for a court proceeding. Topics include coordinating expert resources, formulating an opinion, presenting investigative findings, and testifying during legal proceedings. (not transferable)

FIRE 0190. Human Resource Management for Chief Fire Officers - 3A
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 26 lecture
Designed for Company Officers advancing to the Chief Officer classification. Provides basic knowledge of human resource requirements related to the roles and responsibilities of a Chief Fire Officer. Includes developing plans for providing employee accommodation, developing hiring procedures, establishing personnel assignments, describing methods of facilitating and encouraging professional development, developing an ongoing education training program, developing promotion procedures, developing proposals for improving employee benefits, and developing a measurable accident and injury prevention program. (not transferable)

FIRE 0191. Budget and Fiscal Responsibilities for Chief Fire Officers - 3B
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 18 lecture
Provides a basic knowledge of the budgeting requirements related to the roles and responsibilities of a Chief Fire Officer, including developing a budget management system, developing a division or departmental budget, and describing the process for ensuring competitive bidding. (not transferable)

FIRE 0192. General Administrative Functions for Chief Fire Officers - 3C
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 24 lecture
Provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer, including directing a department record management system, analyzing and interpreting records and data, developing a model plan for continuous organizational improvement, developing a plan to facilitate approval, preparing community awareness programs, and evaluating the inspection program of the authority having jurisdiction (AHJ). (not transferable)

FIRE 0193. Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents
Units: 2
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 40 lecture
Provides a basic knowledge of the emergency service requirements related to the roles and responsibilities of a Chief Fire Officer, including developing a plan for the integration of fire services resources, developing an agency resource contingency plan, evaluating incident facilities, supervising multiple resources, developing and utilizing an incident action plan, obtaining incident information to facilitate transfer of command, developing and conducting a post-incident analysis, and maintaining incident records. This course has been realigned to expanding/extended Type 3 incidents also allowed for dual certification with the NWCG S-300 Extended Attack Incident Commander course, the base course for CICCS certification as an Incident Commander Type 3 (ICT3). (not transferable)

FIRE 0241. I-200: Incident Command System
Units: 0.5
Hours: 12 lecture
Aligns with I-200: Incident Command System of the Federal Emergency Management Agency (FEMS) ICS Program. This course is an introduction to the Incident Command System (ICS) National Training curriculum. Includes principles and features, organization overview, incident facilities, resources, and common responsibilities. ICS 200 certification is the minimum requirement for attending ICS 200 level courses and functioning in a Unit Leader position during an incident. (C-ID FIRE 231X) (not transferable)

FIRE 0242. I-300: Intermediate ICS for Expanding Incidents
Unit: 1
Prerequisite: Completion of FIRE 241 with grade of "C" or better
Hours: 24 lecture
Covers organization and staffing, incident resources management, organizing for incidents or events, incident and event planning and air operations within the Incident Command System national training curriculum. (pass/no pass grading) (not transferable)

FIRE 0243. I-400: Advanced ICS for Complex Incidents
Units: 0.5
Prerequisite: Completion of FIRE 242 with grade of "C" or better
Hours: 16 lecture
Covers command and general staff, unified command, major incident management and area command within the Incident Command System national training curriculum. (pass/no pass grading) (not transferable)

FIRE 0608. Basic Structural Firefighter
Units: 4.5
Hours: 150 (55 lecture, 95 laboratory)
Entry-level course for volunteer firefighters. Topics include fire behavior, safety, personal protective equipment, forcible entry, rescue, ground ladders, hoses, fire streams and nozzles, and fire control principles. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0618. Fire Control 4
Units: 0.5
Prerequisite: Completion of Fire 100 and 170 with grades of "C" or better or equivalent as determined by the Program Coordinator.
Hours: 16 (8 lecture, 8 laboratory)
This course provides the knowledge and skills that prepare a firefighter to extinguish an ignitable liquid fire, control a flammable gas fire, and develop an incident action plan for a pipeline emergency. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0632. Auto Extrication
Units: 0.5
Hours: 24 (9.5 lecture, 14.5 laboratory)
Provides the knowledge and skills to prepare a firefighter to extricate victim(s) from a common passenger vehicle in a safe and effective manner. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0634. Driver Operator 1A
Unit: 1.5
Prerequisite: Hold a valid Class C driver's license
Hours: 40 (23 lecture, 17 activity)
Provides information on fire apparatus, preventative maintenance and driving/operating. Topics include routine tests, inspections, and servicing functions; operate, back, maneuver, and turn a fire apparatus in a variety of conditions; and operate all fixed systems and equipment on a fire apparatus. Students must provide full structural personal protective equipment and fire apparatus for the final two days of class. Fulfills the requirements for a Class C Firefighter Endorsement. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0635. Driver/Operator 1B - Pumping Apparatus Operations
Unit: 1.5
Prerequisite: Completion of FIRE 634 with grade of "C" or better, and completion of Firefighter 1, or equivalent as determined by the Fire Technology Program Coordinator, and hold a valid Class C Firefighter endorsed driver's license
Hours: 40 (18 lecture, 22 activity)
Provides information on pumping apparatus preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions; producing hand, master, and foam fire streams, relay pump operations; and supplying water to fire sprinkler and standpipe systems. Students must provide full structural personal protective equipment and fire apparatus for the final three days of class. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0637. Confined Space Awareness
Units: 0.5
Hours: 9 lecture
Instruction in identifying a permit and non-permit required confined space, the hazards associated with confined spaces, target industries and hazards, state regulations, communications and equipment requirements. This course does not qualify participants to make permit required entries. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0638. Low Angle Rope Rescue Operational
Units: 0.5
Hours: 24 (8 lecture, 16 laboratory)
Designed to equip the student with the techniques and methods for using rope, webbing, hardware friction devices and litters in low angle rescue situations. Areas covered include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage systems and single and two line rescue systems. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0640. Hazardous Materials Technician 1A, Basic Chemistry
Units: 2
Prerequisite: Completion of FIRE 170 with grade of "C" or better or approved Federal/State equivalent course
Hours: 40 lecture
Basic aspects of chemistry and physics related to management of a hazardous materials incident. Covers physical and chemical properties of matter, atomic structure, periodic table, metals and non-metals, salts, hydrocarbons and derivatives, forms of energy, the combustion process, flammable and combustible liquids. Meets standards prescribed by the CA State Fire Marshal, and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0641. Hazardous Materials Technician 1B, Applied Chemistry
Unit: 1.5
Prerequisite: Completion of FIRE 640 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (24 lecture, 16 laboratory)
Basic terminology and theory of chemistry as it relates to hazardous materials. Covers chemical aspects of the hazard classes, toxicology, including hazard and risk assessment, function and use of detection instruments, monitoring hazardous atmospheres and use of a field identification kit to identify unknown solids and liquids. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0642. Hazardous Materials Technician 1C, Incident Considerations
Unit: 1.5
Prerequisite: Completion of FIRE 641 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (26 lecture, 14 laboratory)
Hazardous materials on-scene incident considerations. Covers data research, meteorological considerations, protective actions, personal protective equipment, incident command aspects, site safety concepts, legislative and regulatory measures influencing emergency response and contingency planning. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0643. Hazardous Materials Technician 1D, Tactical Field Operations
Unit: 1.5
Prerequisite: Completion of FIRE 642 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (24 lecture, 16 laboratory)
Experience with tactical field operations. Covers confinement, control, hazmat triage and sabotage, performing in chemical protective clothing, preservation of evidence, decontamination, and emergency medical system considerations. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0644. Hazardous Materials Specialist 1F
Unit: 1.5
Prerequisite: Completion of FIRE 643 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (32 lecture, 8 laboratory)
Introduction to mitigation techniques. Includes plugging, patching and repairing methods; advanced chemical field identification testing procedures, and fixed facility repair considerations. Part one of a two part series leading to certification as a Hazardous Materials Specialist. Meets requirements of CA Code of Regulations Title 8, Section 519(q). (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0645. Hazardous Materials Specialist 1G
Unit: 1
Prerequisite: Completion of FIRE 644 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (16 lecture, 24 laboratory)
Covers material presented in Hazardous Materials Courses 1A-1F in an environment of scenario based full scale exercises. Participants evaluated for their ability to perform and be certified as a member of a Hazardous Materials Team. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0650. Rescue Systems I
Unit: 1.5
Prerequisite: Completion of FIRE 638 with grade of "C" or better or completion of a State Fire Marshal approved Low Angle Rope Rescue Operational course
Hours: 40 (21 lecture, 19 laboratory)
Rescue systems, ropes and related equipment, heavy object operations, breaking and breaching operations, ladder rescues, and emergency shoring. Required for CA Urban Search and Rescue basic and light operational level training. (not transferable) (not degree applicable) (pass/no pass grading)

Program Student Learning Outcomes (PSLOs)

- Analyze and apply measures to resolve problems in areas of fire suppression, fire prevention and EMS.
- Recognize the importance of ethics, professionalism and diversity within the fire technology field.
- Communicate effectively in both oral presentations and written reports.
- Demonstrate technical, cognitive, and psycho#motor skills necessary to achieve and maintain employment in the fire service.
- Demonstrate knowledge and understanding of the fire service industry.

French

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The United States is taking an active role in world affairs, and it is desirable for Americans to have knowledge of foreign languages and cultures. Learning a foreign language will benefit students and prepare them for any career. The acquisition of desired practical communication skills is the primary objective of the World Languages Department at Sierra College.   Courses are organized around grammatical themes imbedded in cultural topics, requiring critical thinking, analysis and practical implication. Instruction on the Communicative Method integrates

the five key learning objectives of Speaking, Listening, Reading, Writing and Cultural Competence.

TRANSFER MAJOR REQUIREMENTS in Foreign Language are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Foreign Language are qualified for positions in teaching, business, foreign services, law enforcement, nursing, secretarial and diplomatic services.

Career Opportunities in French

Bilingual: teacher, professor, transcriber, sales representative, customer service representative, web publisher, medical/health worker, realtor, IRS/ franchise tax board worker, social services case worker, community outreach specialist, human resources specialist;

Business: international relations consultant, international business personnel, foreign exchange trader, publishing specialist, foreign correspondent, foreign publications/textbook editor, research assistant, importer/exporter, translator/interpreter, international account manager, international banking officer, airline personnel, public relations officer;

Culture/Tourism: cultural events coordinator, travel agent, translator/ interpreter, guide;

Government: national security agent, immigration officer, court interpreter, UNESCO official, Peace Corps employee, translator/interpreter, FBI agent, foreign diplomat missionary, foreign service officer.

Faculty

Laurence I. Lambert
Professor, French
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Courses

Understanding course descriptions (p. 311)

FREN 0001. Elementary French - Level I
Units: 4
Hours: 72 lecture
Listening, speaking, reading, and writing in French. Fundamentals of French pronunciation and grammar. Introduction to the culture of the French-speaking people. Corresponds to two years of high school study. (CSU, UC)

FREN 0002. Elementary French - Level II
Units: 4
Prerequisite: Completion of FREN 1 or two years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Continuation of FREN 1 with greater emphasis on speaking and writing. Explores culture, historical figures, and events of the areas where French is spoken. (CSU, UC)

FREN 0003. Intermediate French - Level I
Units: 4
Prerequisite: Completion of FREN 2 or three years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the French language. Review of grammar with increased emphasis upon speaking and linguistic structure of the language, reading of excerpts from works of French-speaking authors, study of cultural distinctions among the French-speaking peoples, and writing at the intermediate level. (CSU, UC)

FREN 0004. Intermediate French - Level II
Units: 4
Prerequisite: Completion of FREN 3 or four years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the French language. Study of advanced grammar with increased emphasis upon the skills of reading and interpreting works of French literature. Greater focus upon writing and speaking skills. (CSU, UC)

FREN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Improve listening skills in target language and draw reasonable conclusions from observations.
- Improve reading skills in target language while examining important contributions to literature in relevant cultures.
- Improve writing skills in target language while examining new ideas from the relevant cultures.
- Improve speaking skills in target language and develop problem-solving skills by working productively with others.
- Cultivate openness to new ideas and an informed appreciation of relevant cultures.

Geography
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Geography Department offers transfer courses to four-year colleges in diverse academic disciplines such as Geography, Geographic Information Systems (GIS), Earth Science, Environmental Science, Meteorology,

Climatology, Natural Resource Management, Tourism and Recreation, Urban Planning, International Studies, Anthropology and related social sciences. Emphasis in advancing geographic literacy, global awareness and sustainability in the fields of physical and human geography; field study classes provide experiential and interpretive training. Additional technical courses provide expertise in the exciting and fast-growing field of GIS and GeoSpatial technologies. A skills certificate is offered in GIS.

Sean A. Booth
Professor, Geography
B.S., University of Oregon
M.A., California State University, Chico

Geographic Information Systems (GIS) Advisory Committee

- Daniel Armstrong, GIS Specialist, Open Spatial, Rocklin
- Marc Ball, IT Specialist, City of Roseville
- Diana Carolan, GIS Specialist, Nevada County
- Michael Farrauto, Surveyor and GIS Specialist, Andregg Geomatics, Auburn
- Matt Freemont, Environmental Planner and GIS Specialist, HELIX, Folsom
- Dave Hansen, GIS Specialist, U.S. Bureau of Reclamation, Sacramento
- Kermit Hellem, GIS Manager, Sacramento Municipal Utility District
- Abe Hendricks, CAD and GIS Specialist, Placer County Water Agency, Auburn
- Scott Herbert, GIS Sales, California Surveying and Drafting Supply, Inc., Sacramento
- Colin Hobson, GIS Specialist, Open Spatial, Rocklin
- Hugh Howard, Geography and GIS Professor, American River College, Sacramento
- Brian Johnson, GIS Specialist, City of Roseville
- Dave Krolick, GIS Specialist, ECORP Consulting, Rocklin
- Justin Narkter, Public Works Specialist, City of Rocklin
- Steve Rhyne, GIS Specialist, Fehr and Peers, Roseville
- Sabastian Roberts, GIS Specialist, Nevada County
- Jeff Swager, GIS Specialist, ECORP Consulting, Rocklin
- Justin Wages, Land Manager, Placer Land Trust, Auburn

Degrees/Certificates

Associate Degree for Transfer

- Geography for Transfer (p. 168)

Skills Certificate

- Geographic Information System (GIS) (p. 169)

Geography for Transfer
AA-T Degree
The Associate in Arts in Geography for Transfer degree (AA-T) program provides students with a strong foundation in Geography. Upon completion of the program, students will demonstrate knowledge of global physical and environmental processes; formulate an appreciation of world cultural diversity, including demographics, ethnic studies, agricultural practices, economic development and resource consumption; generate solutions for a sustainable future; holistically assess integrative environmental and cultural phenomena based on location

and maps; assemble and analyze spatial information (such as maps, data, surveys, qualitative observations), using traditional and modern mapping technology methods; and integrate cultural, environmental and geographic technology methods.

The Associate in Arts in Geography for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Geography or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Geography for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
GEOG 0001	Physical Geography	3
GEOG 0001L	Physical Geography Laboratory	1
GEOG 0002	Cultural Geography	3
Select 6-8 units from the following:		**6-8**
GEOG 0003	Geography of California	
GEOG 0004	Weather and Climate	
GEOG 0005	World Regional Geography	
GEOG 0016	Field Geography - Central California Coast	
GEOG 0090	Introduction to Geographic Information Systems (GIS)	
Select 6-7 units from the following or unused courses from the preceding area:		**6-7**
ANTH 0002	Cultural Anthropology	
ESCI 0001	Physical Geology	
MATH 0013	Introduction to Statistics	
Total Units		**19-22**

Geographic Information System (GIS)
Skills Certificate

Designed for students to gain a solid foundation in GIS theory and related technologies, such as GPS and remote sensing. Sequence of courses build upon each other to provide hands-on technical skills demanded of the professional workforce, culminating with a professional map portfolio and repertoire of spatial analysis skills. Opportunities for interns and entry-level positions are abundant, provided students learn industry-standard software, GPS skills, database management and mapping design. Students must choose from additional courses, such as computer-aided design (CAD), database management, computer programming, surveying, spatial analysis and are encouraged to participate in an internship. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
GEOG 0086	Global Positioning System (GPS) for GIS	1
GEOG 0090	Introduction to Geographic Information Systems (GIS)	4
GEOG 0093	Advanced GIS	4
Select 6 units from the following:		**6**
ADVM 0001	Technical Drafting I	
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0052	Introduction to SQL	
ENGR 0151	Engineering Graphics	
GEOG 0085	Application of Geospatial Technologies	
GEOG 0091A	Beginning Geospatial Design	
GEOG 0091B	Intermediate Geospatial Design	
GEOG 0094	Geospatial Analysis	
GEOG 0095	Internship in Geography (up to 3 units)	
IT 0055	Database Management	
IT 0075	Python for Many Uses	
Total Units		**15**

Courses

Understanding course descriptions (p. 311)

GEOG 0001. Physical Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Explore Earth's landscape and environmental processes, including the Earth's atmosphere, weather, climate regions, hydrosphere, oceans, clouds, rivers, biosphere, and the Earth landforms, such as mountain building and river systems. Emphasis on the holistic understanding landscape patterns and environmental systems as they relate to location. Also examines human influence on the natural world. (C-ID GEOG 110) (combined with GEOG 1L, C-ID GEOG 115) (CSU, UC)

GEOG 0001L. Physical Geography Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 1
Hours: 54 laboratory
Earth's physical systems, atmosphere, weather and climate, landforms and fluvial systems; includes map reading and investigating remote sensing, GPS, and Geographic Information Systems (GIS). (C-ID GEOG 111) (combined with GEOG 1, C-ID GEOG 115) (CSU, UC)

GEOG 0002. Cultural Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Population, migration, religion, languages, agriculture, economic development and exploration of how humans interact with their environment. Analysis of differences of cultures including housing types, agricultural techniques, and popular and folk customs. Investigation of humans as the primary modifier of the physical landscape within the limits of the Earth's natural resources. (C-ID GEOG 120) (CSU, UC)

GEOG 0003. Geography of California
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to California's diversified geography including climate, landforms, natural vegetation, and water resources, the cultural landscapes of ethnic diversity, our Native American past, urban and agricultural regions, and the economic challenges of the future. Emphasis on cultural diversity, human alteration of the landscape, contemporary problems and resource competition. (C-ID GEOG 140) (CSU, UC)

GEOG 0004. Weather and Climate
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The elements and controls of weather and climate - atmospheric heating, the heat budget, air circulation and winds, moisture, clouds, and precipitation; world climates, their classifications; data collection and interpretation, investigate global climates to microclimates. (C-ID GEOG 130) (CSU, UC)

GEOG 0005. World Regional Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to the world's major geographic regions; their cultural practices, politics, economics, religions, history and environmental characteristics. Location and analysis of important geographic features including mountains, rivers, countries and major cities of Asia, Australia, Africa, North America, Europe and South America. (C-ID GEOG 125) (CSU, UC)

GEOG 0015. Field Geography - Northern California
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Explore valley and mountainous regions of Northern California, such as the Sacramento Valley, northern Coast Range and the southern Cascade mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

GEOG 0016. Field Geography - Central California Coast
Units: 1-2
Hours: 30 (12 lecture, 18 laboratory) per unit
Explore the central coast of Northern California, including the San Francisco Bay Area, the Monterey Bay and Santa Cruz area surrounded by a redwood and coastal ecosystem; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (C-ID GEOG 160) (CSU)

GEOG 0017. Field Geography - Greater Sierra Nevada & Lake Tahoe
Units: 1-2
Hours: 30 (12 lecture, 18 laboratory) per unit
Explore the greater Sierra Nevada region, such as Lake Tahoe and the surrounding Sierra Nevada mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

GEOG 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

GEOG 0085. Application of Geospatial Technologies
Unit: 1
Hours: 18 lecture
Investigation of Geographic Information Systems (GIS) case studies used in industry and government; explores how industry uses GIS with emphasis on natural resource management and watershed analysis. Additional focus on remote sensing, aerial photography, GPS technology. (CSU)

GEOG 0086. Global Positioning System (GPS) for GIS
Unit: 1
Hours: 18 lecture
Global Positioning System (GPS) theory and techniques, GPS field collection, GIS integration and publishing web maps. Discussion of state-of-the-art hardware and industry-standard software used by GIS professionals to prepare, collect and process spatial data. Data collected during class culminates in a comprehensive GIS mapping project used for analysis. (CSU)

GEOG 0090. Introduction to Geographic Information Systems (GIS)
Units: 4
Hours: 72 lecture
Study of Geographic Information Systems (GIS) and its applications to spatial data management. Focus on project design, data acquisition, database management, geographic analysis, and map design. Explores how GIS solves spatial problems, such as those in natural resources, earth and life sciences, environmental planning, local government, business, transportation, and other related fields. (C-ID GEOG 155) (CSU, UC)

GEOG 0091A. Beginning Geospatial Design
Unit: 1
Hours: 18 lecture
Introduction to Geographic Information Systems (GIS) cartographic and database design. Emphasis on GIS and mapping design for practical applications in the fields of natural resource management, disaster mapping, urban planning, business and other related fields. GIS skills include organizing geographic features and attributes, classifying data, labeling, symbology, and proper layout to create maps for GIS analysis. (CSU)

GEOG 0091B. Intermediate Geospatial Design
Unit: 1
Prerequisite: Completion with a grade of "C" or better or concurrent enrollment in GEOG 90 or 91A
Hours: 18 lecture
Builds on basic principles of beginning GIS Design, creating and editing maps, organizing GIS data for spatial analysis, and producing map layouts. (CSU)

GEOG 0093. Advanced GIS
Units: 4
Prerequisite: Completion of GEOG 90 with grade of "C" or better
Hours: 72 lecture
Explores advanced topics that build upon previously learned GIS concept and skills. Improve problem solving skills, spatial database organization, modeling, and producing various map outputs. Student completes a research project and assembles a map portfolio. (CSU)

GEOG 0094. Geospatial Analysis
Units: 3
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 90 or 91B
Hours: 54 lecture
Geospatial analysis reveals patterns, relationships, and trends that solve real-world challenges. With GIS tools, students create surface contours, derive slopes, calculate flow direction, draw watersheds, determine line of sight and identify hotspots. GIS modeling and extensions are used. (CSU)

GEOG 0095. Internship in Geography
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Demonstrate knowledge of global physical and environmental processes, locations and develop an appreciation of landscapes.
- Formulate an appreciation of world cultural diversity, including demographics, ethnic studies, agricultural practices, economic development, resource consumption and generate solutions for a sustainable future.
- Utilizing the concept of a region as a geographic unit of study, holistically assess integrative environmental and cultural phenomenon based on location and maps.

- Assemble and analyze spatial information (maps, data, surveys, qualitative observations, etc.), using traditional and modern mapping technology methods.
- Applying experiential learning and real-world applications, field studies integrate cultural, environmental and geographic technology methods.

German
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The United States is taking an active role in world affairs, and it is desirable for Americans to have knowledge of foreign languages and cultures. Learning a foreign language will benefit students and prepare them for any career. The acquisition of desired practical communication skills is the primary objective of the World Languages Department at Sierra College. Courses are organized around grammatical themes imbedded in cultural topics, requiring critical thinking, analysis and practical implication. Instruction on the Communicative Method integrates the five key learning objectives of Speaking, Listening, Reading, Writing and Cultural Competence.

TRANSFER MAJOR REQUIREMENTS in Foreign Language are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Foreign Language are qualified for positions in teaching, business, foreign services, law enforcement, nursing, secretarial and diplomatic services.

Career Opportunities in German

Bilingual: teacher, professor, transcriber, sales representative, customer service representative, web publisher, medical/health worker, realtor, IRS/franchise tax board worker, social services case worker, community outreach specialist, human resources specialist;

Business: international relations consultant, international business personnel, foreign exchange trader, publishing specialist, foreign correspondent, foreign publications/textbook editor, research assistant, importer/exporter, translator/interpreter, international account manager, international banking officer, airline personnel, public relations officer;

Culture/Tourism: cultural events coordinator, travel agent, translator/interpreter, guide;

Government: national security agent, immigration officer, court interpreter, UNESCO official, Peace Corps employee, translator/interpreter, FBI agent, foreign diplomat missionary, foreign service officer.

Courses

Understanding course descriptions (p. 311)

GER 0001. Elementary German - Level I
Units: 4
Hours: 72 lecture
Introduction to German language and culture, including speaking, listening, linguistic and grammatical structure, reading, pronunciation and intonation patterns. Corresponds to two years of high school study. (CSU, UC)

GER 0002. Elementary German - Level II
Units: 4
Prerequisite: Completion of GER 1 or two years of high school German with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the German language. Continuation of GER 1. Emphasis on speaking, listening, linguistic and grammatical structure, reading, writing. Further study of learning pronunciation and intonation patterns, together with continued discussion of unique cultural characteristics of the German-speaking peoples. Students continue to memorize dialogues, become knowledgeable of utilizing a substantial vocabulary, and conduct translations of culturally meaningful reading selections. (CSU, UC)

GER 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Improve listening skills in target language and draw reasonable conclusions from observations.
- Improve reading skills in target language while examining important contributions to literature in relevant cultures.
- Improve writing skills in target language while examining new ideas from the relevant cultures.
- Improve speaking skills in target language and develop problem-solving skills by working productively with others.
- Cultivate openness to new ideas and an informed appreciation of relevant cultures.

Health Education
Contact Information

Division
Wellness and Athletics

Dean
Rachel Johnson

Associate Dean
Darci Brownell

Division Office
Ft, Rocklin Campus

Overview

Health Education is designed to provide students with essential information for the evaluation and maintenance of individual health, stressing the mental, social and physical well-being of the individual.

Faculty

Mary V. Conway
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Daniel Diaz Romero
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management/Assistant Football Coach
B.S., University of California, Davis
M.A., Western Governor's University
M.S., University of Central Missouri

Heather Eubanks
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Lutheran University
M.A., Azusa Pacific University

John C. Fusano
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason S. Gantt
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California State University, Sacramento
M.S., California State University, Sacramento

Alanna Jackson
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., University of Nevada, Reno
M.S., California State University, Sacramento

Brandie Murrish
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben S. Noonan
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A. Santa Rosa Junior College
B.A., Bemidji State University

M.S., Texas A and M University-Kingsville

Robert B. Willson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Courses

Understanding course descriptions (p. 311)

HED 0001. Standard First Aid/Community CPR
Units: 3
Hours: 54 lecture
Theory and detailed demonstration of first aid care of the injured. Students learn to assess a victim's condition and incorporate proper treatment. Standard first aid, CPR, and AED certifications granted upon successful completion of requirements. Recognition and treatment for cardiac and respiratory emergencies, first aid for bleeding, shock, burns, poisoning, stroke, and various injuries. (C-ID KIN 101) (CSU, UC)

HED 0002. Health Education
Units: 3
Hours: 54 lecture
Studies aspects of mental, emotional, and physical health. Emphasis placed on knowledge for development of attitude, understanding, and practice of a preventive life style for healthy living and optimal wellness. Specific instructional areas include chronic diseases, physical activity, nutrition, weight management, birth control methods, human sexuality, alcohol, tobacco, and illicit chemical use, stress, and factors that contribute to wellness and longevity. Experience in personal health assessment and the changing of health behaviors is stressed. (CSU, UC)

HED 0010. Health and Aging
Units: 3
Hours: 54 lecture
Designed to identify and examine basic principles and concepts of the aging process; including the physical, social, emotional, and mental components of health. Benefits of health promotion programs and preventive actions for the aging are also explored. (CSU, UC)

HED 0101. Introduction to Public Health
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Overview of the disciplines of community and public health. Topics include the basic concepts and terminologies of public health; an overview of various public health professions and organizations; the study, prevention and control of diseases in the community; the analysis of the social determinants of health; strategies for eliminating disease, illness, and health disparities among various populations; community organizing and health promotion programming; school health promotion; environmental health and safety; and an overview of the healthcare delivery system in the United States. Emphasis will be placed on the development of knowledge and preliminary skills to serve as an effective advocate for community and public health. (C-ID PH 101) (CSU, UC)

HED 0102. Health and Social Justice
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Provides an introduction to the health inequities in the United States that stem from unequal living conditions. Students will explore how education, socioeconomic status, racism, and gender shape health epidemics and policy development. Fundamental theories to advocate for health and social justice will be explored, and community organizing approaches will be practiced. (C-ID PH 102) (CSU, UC)

HED 0113. Health Disparities and Equities
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
This course will examine personal and social determinants of health through the examination of the role individuals play in their own health and wellbeing, along with the impact of environmental, social, structural, and cultural factors that play a role both in individual and community and public health. Health disparities and inequities in sexually diverse, gender, racial, and minority populations will be explored, and culturally competent ideas to bridge the health equity gap and improve population health will be developed. (CSU)

Program Student Learning Outcomes (PSLOs)

- Demonstrate the basic skills of first aid and CPR.
- Distinguish principles of healthy weight management through exercise and nutrition.
- List and practice the six components of wellness and/or the five components of health-related fitness.
- Demonstrate knowledge of how the heart functions.
- Create a balance between physical fitness, social well-being, and academic success.

Health Sciences

Contact Information

Division
Allied Health

Dean
Nancy James

Division Office
RN1-101, Rocklin Campus

Department Phone
(916) 660-8300

Overview

Health Science courses are primarily designed as first responder basic life support training for the fire service, emergency medical services and health care professions. Other courses in this area are intended to improve or update the skills of individuals providing emergency and primary health care services.

Faculty

Wende D. Fortner
Professor, Health Sciences
B.S.N., Humboldt State University
M.S.N., California State University, Sacramento
F.N.P., University of California, Davis

Kristin Hammond
Assistant Professor, Health Sciences

Brianna Nathaniel
Professor, Health Sciences
B.A., University of California, Santa Barbara

Robert Riley
Assistant Professor, Health Sciences
B.S., California State University, Sacramento
M.S., California Sate University, Long Beach

Health Sciences/Emergency Medical Technician Advisory Committee

- American Medical Response, Sacramento and Placer Counties, CA
- Dignity Health Care, Sacramento and Placer Counties, CA
- Kaiser Health Foundation
- Medic Ambulance, Sacramento, CA
- Placer Unified High School District, Auburn, CA
- Rocklin Fire Department, Rocklin, CA
- Roseville Fire Department, Roseville, CA
- Sacramento City Fire Department, Sacramento, CA
- Sacramento Metro Fire District, Sacramento, CA
- Sutter Health Care, Sacramento, CA

Degrees/Certificates

Associate Degrees
Emergency Medical Sciences (p. 173)

Health Science (p. 174)

Certificate of Achievement

Emergency Medical Sciences (p. 174)
Skills Certificates
Advanced Emergency Medical Technician (AEMT) (p. 175)

Emergency Medical Technician (p. 175)
Pre-Paramedic (p. 175)

Emergency Medical Sciences
AS Degree and/or Certificate of Achievement
The purpose of this proposal is to help prepare the Sierra College student for an entry-level Emergency Medical Technician (EMT) position and to help advance the careers of those already in the field who have received noncredit training and/or non-degree educational preparation thus far. The need for the program is based on the demand by employers (both public and private) and on the increased level of college education and training required for entering or pursuing any career progression in the field. The California State EMS (Emergency Medical Services) Authority has maintained that state EMT licensing meet the standard of care requirements of the National Registry of Emergency Medical Technicians (NREMT) and the US Department of Transportation (USDOT). The National Standards requirement for EMT certification is recognized for reciprocal certification in 48 states. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra

College) with a grade point average of at least 2.0, and complete one of the following general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
HSCI 0002	Emergency Medical Technician	9
HSCI 0003	Medical Terminology	3
HSCI 0030	Functional Anatomy and Pathophysiology For EMS Professionals	3-4
or BIOL 0055	General Human Anatomy and Physiology	
Select 10 units from the following:		**10**
ALH 0020	Introduction to Allied Health	
HSCI 0007	Emergency Medical Responder	
HSCI 0050	Introduction to Advanced Life Support	
PSYC 0107	Abnormal Psychology	
PSYC 0108	Psychology of Death and Dying	
PSYC 0150	Alcohol, Drugs and Society	
Total Units		**25-26**

Health Science
AS Degree

The curriculum in Health Science focuses on providing a broad base of knowledge and skills to support students' development into competent health care professionals. The objective of the degree is to provide a foundation for continued study in Health Science or related field at a four-year college or university and for employment in the healthcare fields. Students will develop a breadth of understanding and skills in health science, human health and human physiology. The curriculum encompasses courses that are relevant to many healthcare careers including: health administration, occupational therapy, environmental health, clinical laboratory, dental hygiene, paramedic, registered nursing, respiratory therapy, physical therapy, and physician's assistant. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0, and complete one of the following general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
BIOL 0005	Human Anatomy	5
BIOL 0006	Human Physiology	5
CHEM 0002A	Introduction to Chemistry I	5
HSCI 0002	Emergency Medical Technician	9

HSCI 0003	Medical Terminology	3
MATH 0013	Introduction to Statistics	4
Select 6-10 units from the following:		**6-10**
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	
BIOL 0004	Microbiology	
BUS 0201	Financial Accounting	
BUS 0202	Financial Accounting II	
CHEM 0002B	Introduction to Chemistry II	
ECON 0001A	Principles of Macroeconomics	
or ECON 0001B	Principles of Microeconomics	
HSCI 0007	Emergency Medical Responder	
HSCI 0050	Introduction to Advanced Life Support	
HSCI 0080	Introduction to Public Safety Dispatch (ALso ADMJ 0088, FIRE 0080)	
NUTF 0010	Principles of Nutrition	
PHYS 0010	Basic Concepts in Physics	
or PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory	
PSYC 0100	Introduction to Psychology	
PSYC 0108	Psychology of Death and Dying	
PSYC 0150	Alcohol, Drugs and Society	
SPAN 0019	Spanish for Public Safety	
SPAN 0020	Spanish for the Healthcare Professions	
HSCI 0051	Advanced Emergency Medical Technician (AEMT) Didactic	6
HSCI 0052	Advanced Emergency Medical Technician - Clinical/Field Experience	3.5
Total Units		**46.5-50.5**

Emergency Medical Sciences
Certificate of Achievement

The purpose of this proposal is to help prepare the Sierra College student for an entry-level Emergency Medical Technician (EMT) position and to help advance the careers of those already in the field who have received noncredit training and/or non-degree educational preparation thus far. The need for the program is based on the demand by employers (both public and private) and on the increased level of college education and training required for entering or pursuing any career progression in the field. The California State EMS (Emergency Medical Services) Authority has maintained that state EMT licensing meets the standard of care requirements of the National Registry of Emergency Medical Technicians (NREMT) and the US Department of Transportation (USDOT). The National Standards requirement for EMT certification is recognized for reciprocal certification in 48 states. A certificate provides career technical skills, not equivalent to an associate degree.

Required Courses

Code	Title	Units
HSCI 0002	Emergency Medical Technician	9
HSCI 0003	Medical Terminology	3
HSCI 0030	Functional Anatomy and Pathophysiology For EMS Professionals	3-4
or BIOL 0055	General Human Anatomy and Physiology	
Select 10 units from the following:		**10**

ALH 0020	Introduction to Allied Health	
HSCI 0007	Emergency Medical Responder	
HSCI 0050	Introduction to Advanced Life Support	
PSYC 0107	Abnormal Psychology	
PSYC 0108	Psychology of Death and Dying	
PSYC 0150	Alcohol, Drugs and Society	
HSCI 0051	Advanced Emergency Medical Technician (AEMT) Didactic	6
HSCI 0052	Advanced Emergency Medical Technician - Clinical/Field Experience	3.5
Total Units		**34.5-35.5**

Advanced Emergency Medical Technician (AEMT)
Skills Certificate

Designed to give students the knowledge and skills required to enter the Advanced EMT workforce. The focus is on the application of limited advanced life support (LALS) emergency medical skills relative to advancing a career in the field of prehospital care. This skills certificate will provide the technical career skills and AEMT certifications that are advanced occupation requirements and are recognized at the state and national levels. This skills certificate provides career technical skills not equivalent to an associate degree.

Required Courses:

Code	Title	Units
HSCI 0051	Advanced Emergency Medical Technician (AEMT) Didactic	6
HSCI 0052	Advanced Emergency Medical Technician - Clinical/Field Experience	3.5
Total Units		**9.5**

Emergency Medical Technician
Skills Certificate

Designed to give students the knowledge and skills required to enter the EMT workforce. The focus is on the application of emergency medical skills relative to starting a career in the field of prehospital care. This skills certificate will provide the technical career skills and EMT certifications that are minimal occupation requirements and are recognized at the state and national levels. This skills certificate provides career technical skills not equivalent to an associate degree.

Required Courses

Code	Title	Units
HSCI 0002	Emergency Medical Technician	9
Total Units		**9**

Pre-Paramedic
Skills Certificate

Designed to provide the prerequisite knowledge required to be successful in a paramedic program course of study. Students are introduced to the paramedic skills and advanced life support protocols and will develop a strong baseline knowledge of medical terminology, human anatomy, physiology, and pathology. This skills certificate provides career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HSCI 0003	Medical Terminology	3
HSCI 0050	Introduction to Advanced Life Support	3.5
HSCI 0030	Functional Anatomy and Pathophysiology For EMS Professionals	3-4
or BIOL 0055	General Human Anatomy and Physiology	
Total Units		**9.5-10.5**

Courses

Understanding course descriptions (p. 311)

HSCI 0002. Emergency Medical Technician
Units: 9
Advisory: Completion of HSCI 3, HSCI 7, and BIOL 55 or HSCI 30 with grade of "C" or better
Hours: 235 (131 lecture, 80 laboratory, 24 activity)
Provides knowledge and critical thinking skills necessary to deliver emergency medical care in a prehospital environment. Covers legal and moral aspects, scene safety, primary and secondary patient assessments, intervention and stabilization skills, proper use of emergency medical equipment, awareness of bloodborne pathogens and communicable diseases, recognition of signs and symptoms, and pathophysiology of medical emergencies and traumatic injuries. Includes practical hands-on skills training and interactive simulations. Includes certification for American Heart Association (AHA) CPR professional and bloodborne pathogen and infection control. Tactical EMS training and state certification in "TEMS First Responder Operations". Clinical experience is an assigned field and/or clinical observation. Attendance and participation are mandatory; a cumulative score of 80% on all written quizzes and exams, and a passing score on all practical skills testing are required for qualification for national and state EMT certification. Meets updated National Education Standards for EMT curriculum, and all requirements of the California Code of Regulations Title 22, the California EMS Authority, and the National Registry of Emergency Medical Technicians (NREMT). Upon successful completion, the student is eligible to take the NREMT EMT examination and qualify for a California State EMT certification. Students must be 18 years of age at the start of the course; provide a Tuberculosis (TB) Blood Test (QuantiFERON) or a negative chest x-ray; provide proof of immunizations for Mumps, Measles, Rubella (MMR); Varicella zoster-vaccination or positive titer; Hepatitis B series completion and titer, or Hepatitis B series in progress and a signed declination; Diphtheria, Tetanus, and Pertussis (Tdap); current influenza vaccine; Student is required to take a drug screen test demonstrating the absence of evidence of controlled substance use and provide criminal background screening satisfying the requirements of the State EMS Authority and EMT program clinical providers. (CSU)

HSCI 0003. Medical Terminology
Units: 3
Hours: 54 lecture
Comprehensive overview of the medical language using a systems oriented approach of the human body. Covers the formation, spelling, correct pronunciation, and proper usage of common medical terms and abbreviations. The terminology is relative to the medical applications used within a wide variety of health care professions. Course meets the prerequisite requirements of numerous allied health care training programs, and is highly recommended as a preparatory course for EMT, Paramedic and Nursing programs. (CSU)

HSCI 0007. Emergency Medical Responder
Units: 3.5
Hours: 80 (62 lecture, 18 laboratory)
Provides the knowledge and practical skills training required to be certified as an Emergency Medical Responder (EMR). Comprehensive training includes oxygen therapy and delivery, basic airway adjuncts, positive pressure ventilation, bleeding control, extremity splinting and spinal immobilization. Emphasizes a systematic patient assessment, critical thinking and medical interventions at the first responder level. Provides the mandated training for recognizing the risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standard 29 CFR 1910.1030 specific to the EMS first responder and healthcare professional. Upon completion with a grade of "C" or better, students are issued a certificate of completion and are eligible to apply for an EMR certification through the state of California. (CSU)

HSCI 0012. Professional CPR and Infection Control
Units: 0.5
Hours: 16 (10 lecture, 6 activity)
Provides the American Heart Association (AHA) Basic Life Support/ CPR certification for Healthcare Providers. Also provides mandated training for recognizing risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standard 29 CFR 1910.1030 specific to the healthcare professional. (not transferable)

HSCI 0030. Functional Anatomy and Pathophysiology For EMS Professionals
Units: 3
Prerequisite: Completion of HSCI 2 with grade of "C" or better, or current state certification as an Emergency Medical Technician
Hours: 54 lecture
Designed for students pursuing careers in Emergency Medical Services (EMS) and advanced levels of prehospital care. Provides overview of functional anatomy, symptomology and pathophysiology of disease, medical emergencies, and effects of traumatic injuries. EMS management and review of field treatment protocols enhance ability to treat and stabilize emergency medical situations in the field. (CSU)

HSCI 0050. Introduction to Advanced Life Support
Units: 3.5
Prerequisite: Completion of HSCI 2 with grade of "C" or better, or a similar state certified EMT course; must be currently certified as an EMT in the state of California or certified through the National Registry of Emergency Medical Technicians (NREMT)
Advisory: Completion of HSCI 3 and BIOL 55 with grades of "C" or better
Hours: 80 (60 lecture, 20 laboratory)
Introduction to the advanced knowledge and critical thinking skills necessary to prepare for a paramedic program, advanced emergency medical technician (AEMT) training, registered nursing (RN), physician assistant (PA), and other allied health training programs. Assessment based course focuses on advanced life support (ALS) interventions; electrocardiogram (EKG) recognition and interpretation; pharmacology; advanced airway management; intravenous and intraosseous fluid and drug infusion; basic anatomy, physiology and principles of pathophysiology; introduction to local, state and national ALS protocols. Practical skills labs focus on improving patient assessment techniques, managing realistic case study scenarios, and introduction to AEMT, paramedic skills, protocols, and interventions. Course format is interactive and simulates the intense pace and discipline required of AEMT, paramedic and other allied health vocational training. Mandated student participation, passing of written exams and practical skills assessments required for completion. Course is approved for eighty (80) hours of instructor based continuing education (CE) by the National Registry of Emergency Medical Technicians (NREMT) and as a California state EMS CE Provider. (CSU)

HSCI 0051. Advanced Emergency Medical Technician (AEMT) Didactic
Units: 6
Prerequisite: Current AHA Healthcare Provider CPR certification and current California State EMT certification required
Advisory: Completion of HSCI 3, HSCI 30, HSCI 50, and BIOL 55 with grades of "C" or better; eligibility for ENGL 11
Hours: 144 (90 lecture, 54 laboratory)
Provides academic preparation and psychomotor skills training to prepare the student for HSCI 52, the Advanced Emergency Medical Technician (AEMT) clinical and field Internship. Successful completion of HSCI 51 and HSCI 52 make the student eligible to take the National Registry of EMTs (NREMT) Advanced EMT certification exam. Topics include Limited Advanced Life Support (LALS) knowledge, application and problem solving skills necessary to work as an AEMT in the Emergency Medical Services (EMS) field for an ambulance service, fire department, hospital emergency department or other specialized service. A "C" letter grade, as well as successful completion of the HSCI 51 exit exam and psychomotor skills test, are required to be eligible for HSCI 52. This course conforms to the National EMS Scope of Practice Model and the EMS National Education Standards, complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations, and is approved by the Sierra Sacramento-Valley Emergency Medical Services Agency. Field trips or off-campus lab assignments are required. (not transferable)

HSCI 0052. Advanced Emergency Medical Technician - Clinical/Field Experience
Units: 3.5
Prerequisite: Completion of HSCI 2 and HSCI 51 with grades of "C" or better, or equivalent training; HSCI 52 must be completed no more than seven months after the completion of HSCI 0051; current AHA Healthcare Provider CPR certification and current California State EMT certification required; must submit to a drug screen test demonstrating the absence of any evidence of controlled substance use and provide a criminal background check satisfying the requirements of the State EMS Authority, and the AEMT program clinical providers; must provide two negative TB tests by two-step PPD process, or a negative chest x-ray; provide proof of immunizations for Mumps, Measles, Rubella (MMR); Varicella zoster-vaccination or positive titer; Hepatitis B status screening or signed declination; Diphtheria, Tetanus and Pertussis (Tdap); current influenza vaccine
Advisory: Completion of HSCI 3, HSCI 30, HSCI 50 and BIOL 55 with grades of "C" or better; eligibility for ENGL 11
Hours: 200 laboratory
Provides the supervised clinical and field experience training requirements for Advanced Emergency Medical Technician, at the limited advanced life support (LALS) scope of practice. Successful completion of HSCI 51 and HSCI 52 makes the student eligible to take the National Registry of EMTs (NREMT) Advanced Emergency Medical Technician (AEMT) certification exam. Course is approved by the Sierra Sacramento Valley - Emergency Medical Services (EMS) Agency, and conforms to the National EMS Scope of Practice Model, the EMS National Education Standards and complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations. (not transferable)

HSCI 0053. Paramedic - Advanced Life Support Part 1
Units: 10
Prerequisite: Current California State Emergency Medical Technician (EMT) Certification; current American Heart Association Healthcare Provider CPR certification
Advisory: Completion of HSCI 30, HSCI 50 or BIOL 55, and HSCI 3 with grades of "C" or better
Hours: 252 (144 lecture, 108 laboratory)
Part one of a four-part series of courses providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). Theory and psychomotor application of prehospital care including the anatomy and physiology of respiratory and cardiovascular disease processes, medical disorders, and emergencies across the adult life span. Students will learn to identify abnormal physical assessments and apply appropriate priority interventions. Competencies in accessing and evaluating patient monitoring technologies, integrating advanced life support theories to perform paramedic skills related to prehospital care standards for medical emergencies and disorders. Students will receive certified training in Advanced Cardiac Life Support (ACLS). (CSU)

HSCI 0054. Paramedic - Advanced Life Support Part 2
Units: 9
Prerequisite: Completion of HSCI 53 with grade of "B" or better; current California EMT Certification and AHA BLS CPR Certification
Hours: 248 (122 lecture, 126 laboratory)
Part two of a four-part series of courses providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). Theory and psychomotor application of prehospital care including the anatomy and physiology related to body systems and the impact of trauma, disease processes, and medical disorders for common obstetric, pediatric, and geriatric patient emergencies. Students will learn to identify abnormal physical assessments and apply appropriate priority interventions. Competencies in accessing and evaluating patient monitoring technologies, and integrating advanced life support theories to perform paramedic skills related to prehospital care standards for traumatic injuries and medical emergencies. Students will receive certified training in Pediatric Advanced Life Support (PALS)/Handtevy or equivalent. (CSU)

HSCI 0055. Paramedic Clinical Experience
Units: 5
Prerequisite: Completion of HSCI 54 with grade of "B" or better; current California EMT Certification, Current AHA BLS, ACLS and PALS Certification/equivalent
Hours: 234 (18 lecture, 216 laboratory)
Part three of a four-part series providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). The Clinical section provides students with an acute clinical care experience under the direct supervision of a Registered Nurse and Paramedic preceptor. The student will identify abnormal physical assessments and be able to apply appropriate priority interventions. Students will be exposed to dynamic clinical environments including the emergency department and labor and delivery. Supervised clinical training on high-fidelity manikin simulation. (CSU)

HSCI 0056. Paramedic Field Internship
Units: 10
Prerequisite: Completion of HSCI 55 with grade of "B" or better; current California EMT Certification, AHA BLS, ACLS, PALS Certification/equivalent
Hours: 540 laboratory
Part four of a four-part series providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). The field Internship section provides the paramedic student the culminating field experience minimum of 480 hours on an Advanced Life Support (ALS) ambulance and/or fire engine. The paramedic student will work in a variety of patient care situations under the direct supervision of a Paramedic Preceptor and will demonstrate the ability to perform an assessment, identify abnormal physical findings, and be able to apply appropriate priority interventions while working in dynamic field environments. (CSU)

HSCI 0080. Introduction to Public Safety Dispatch
Units: 3
Also known as ADMJ 78 and FIRE 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

HSCI 0600. Emergency Medical Technician Continuing Education
Unit: 1
Prerequisite: Must be eligible for certification or re-certification as an EMT in the State of California
Hours: 24 (16 lecture, 8 laboratory)
Provides 24 hours of continuing education required for state re-certification as an Emergency Medical Technician (EMT). Reviews current standards for airway management and ventilation, patient assessment, cardiac care and resuscitation, injury management and stabilization, legal and ethical issues, vital signs, assisting with medication administration, and review of the updated and optional EMT scope of practice. Students update their psychomotor skills and demonstrate proficiency in organized skills labs. Students that successfully complete the course receive a certificate of completion. May be repeated for credit to meet legally mandated continuing education and re-certification requirements. (pass/no pass grading) (not degree applicable)

Program Student Learning Outcomes (PSLOs)

- Demonstrate and confirm knowledge of current industry standards by successfully completing all course requirements and successfully passing the certifying written examination of the National Registry of Emergency Medical Technicians.
- Demonstrate effective and clear communication skills required for patient care, completing critical skills and incident management, using both verbal and written medical summarizations.
- Demonstrate ability to perform a primary assessment on a medical or trauma patient, manage a simulated emergency scenario, and determine the appropriate critical care interventions.
- Determine the role of legal, ethical, and professional standards of conduct within the Emergency Medical Services and other health care professions.
- Demonstrate proficiency of all required practical skills as mandated to qualify for the National Registry of Emergency Medical Technicians Certification and for EMT and EMR licensing with the State of California.

History
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

History is an academic discipline concerned with the manner by which people and institutions of all kinds have become transformed with the passage of time. In the study of history it is more important to learn the skills of finding, interpreting and relating historical information than it is simply to memorize historical data. Through the study of history, students can acquire the techniques of gathering and applying information to gain a perspective on the human condition.

TRANSFER MAJOR REQUIREMENTS in History are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in History are qualified include teaching, state and national park historian, historical archaeologist and government positions. There are broad areas in the job market where a liberal arts background is needed.

Faculty

Ralph S. de Unamuno
Professor, History
B.A., University of California, Los Angeles
B.A., University of California, Los Angeles
M.A., University of California, Los Angeles

Jay W. Hester
Professor, History
B.A., University of California, Santa Barbara
M.A., University of Missouri, Columbia

Mieke Lisuk
Assistant Professor, History
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Aimee P. Myers
Professor, History
B.A., University of California, Riverside
M.A., University of California, Riverside
Ph.D., University of California, Riverside

Megan White
Professor, History
A.A., Sierra College
A.S., Sierra College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Degrees/Certificates
History for Transfer
AA-T Degree

History is a broadly based discipline that explores the human condition through its historical development. Courses explore a variety of regions and time periods, using both primary and secondary sources to examine the people, institutions, ideas and events of the past and present. By developing skills in critical thinking and expanding their understanding of cultural diversity, students will strengthen their understanding of the past and perspective on the future.

The Associate in Arts in History for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in History or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in History for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
HIST 0017A	History of the United States to 1877	3
HIST 0017B	History of the United States since 1865	3
Select 6 units from the following:		**6**
HIST 0004A	Western Civilization to 1715	
or HIST 0050	World History to 1500	
HIST 0004B	Western Civilization since 1715	
or HIST 0051	World History since 1500	
Select 3 units from the following (if not used above):		**3**
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0024	Russian History - 10th Century to Present	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
Select 3 units from the following or unused course from the preceding areas:		**3**
HIST 0008A	Asian American History: 18th Century to 1945	
HIST 0008B	Asian American History: Early 20th Century to 21st Century	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0022	American Military History	
HIST 0023	Chicano/Mexican American History	
HIST 0025	Native American History	
HIST 0027	Women in American History	
Total Units		**18**

Additional Information:

Students seeking California State University, Sacramento's Secondary Teaching Credential should follow the pre-credential Social Science Subject Matter Program with either the History or Social Science Major option. See the CSUS catalog under History (Pre-Credential Preparation) or Social Science (Pre-Credential Preparation) for major requirements. History majors may elect to take the CSET exams in Social Science in lieu of completing the subject matter program. For more information on the CSET: Social Science, click here **(https://www.ctcexams.nesinc.com/TestView.aspx?f=HTML_FRAG/CA_CSET114_TestPage.html).**

Courses

Understanding course descriptions (p. 311)

HIST 0004A. Western Civilization to 1715
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the development of western culture from its beginning to 1715; exploration of the scope and definition of western culture and civilization interrelating political and social events with art, literature, and philosophy; covering the ancient Middle East, Greece, Rome, Late Antiquity, the Medieval era, and early Modern Europe. (C-ID HIST 170) (CSU, UC)

HIST 0004B. Western Civilization since 1715
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of European history and the development of western culture, from 1715 to present, interrelating political and social events with art, literature, and philosophy; covering the Ancient Regime, the Age of Democratic Revolutions, industrialization, the rise of fascism and communism, the two world wars, the Cold War, the postwar era, and the European Union. (C-ID HIST 180) (CSU, UC)

HIST 0008A. Asian American History: 18th Century to 1945
Units: 3
Hours: 54 lecture
An exploration of Asian American history from the 18th century to WWII. A comparative analysis of issues and perspectives by first wave immigrants from China, Japan, Korea, India, the Philippines with emphasis on colonialism, imperialism, war, Orientalism, discrimination, social inequity, immigration and settlement patterns, labor, community, and political resistance. This course will ask students to challenge the traditional "master" narrative of U.S. history and encourage them to examine how Asian American history transforms U.S. history. This course includes analysis of the U. S. Constitution, Supreme Court Rulings, and California State and local government issues related to the rights of Asian Americans. (CSU, UC)

HIST 0008B. Asian American History: Early 20th Century to 21st Century
Units: 3
Hours: 54 lecture
A historical survey of Asian Americans from early 20th century to the present. Major topics will include war, refugees, immigration and settlement patterns, laws, labor and socioeconomic class, social movements, education, discrimination, gender, sexuality, and social identity. The course will interrogate the term "Asian American" and apply comparative analysis among diverse groups including Chinese, Japanese, Filipino, Korean, South Asian, and Southeast Asian. This course includes analysis of the U. S. Constitution, Supreme Court Rulings, and California State and local government issues related to the rights of Asian Americans. (CSU, UC)

HIST 0017A. History of the United States to 1877
Units: 3
Hours: 54 lecture
History of the United States from its origins to 1877. Emphasis on evolution of colonial societies, the American Revolution and the establishment of the Republic, Constitution and constitutional developments, and emergence of a national political tradition; ethnic and racial pluralism of settlement, growth and development; the market revolution and emergence of democracy; institution of slavery, territorial expansion, and events, issues, and developments culminating in the Civil War and the Reconstruction of the South. (C-ID HIST 130) (CSU, UC)

HIST 0017B. History of the United States since 1865
Units: 3
Hours: 54 lecture
History of the United States from 1865 to the present. Emphasis on national political, economic, intellectual, and social trends and their impact on constitutional law; industrialization and urbanization; evolution of American ethnic, cultural and racial pluralism; and role of United States in world affairs. Also addresses California state and local issues in a broad, national context. (C-ID HIST 140) (CSU, UC)

HIST 0018A. The African American Experience in American History to 1877
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
History of African Americans from the pre-European West African city state kingdoms to the end of Reconstruction; major events in America's development emphasizing the role of people of African descent in the political, social and economic life of the United States; the institution of slavery; free blacks in the North and the abolitionist movement. (CSU, UC)

HIST 0018B. The African American Experience in American History since 1877
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
History of African Americans in the United States since the Civil War; major events in America's development emphasizing the role of people of African descent in the political, social and economic life of the United States; Reconstruction; Jim Crow era; Booker T. Washington and W.E.B. DuBois; the Civil Rights Movement; and African Americans in the Reagan-Bush and Clinton eras. (CSU, UC)

HIST 0019A. History of Traditional East Asia
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the major cultural, social, and political traditions and institutions of India, China, Japan, and Southeast Asia from the earliest civilizations to the 17th century. Includes imperial and dynastic developments, artistic and philosophical expression, economies and commerce, and impact of pan-Asian Buddhist and Muslim movements. (CSU, UC)

HIST 0019B. History of Modern East Asia
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
East Asia from the 17th century to present. Includes Asian societies on the eve of modernization, regional responses to Western imperialism, modern nationalist movements, Asia during the two world wars, and role of Asia in modern global economics and diplomacy. Comparisons of China, Japan, and Indian subcontinent; reference to Korea and Southeast Asia. (CSU, UC)

HIST 0020. California History
Units: 3
Hours: 54 lecture
Comprehensive survey of the history of California from prehistoric to contemporary times. Emphasis on the environment and the three main eras of human settlement: California Indian, Spanish and Mexican, and American periods. Study of diverse Indian groups; various movements of people over time and different perspectives on government, law, economics, and culture. Local, state, regional, national, Pacific Rim, and global issues. (CSU, UC)

HIST 0021. Contemporary United States History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Study of American social, political and economic history since 1945; course emphasis on the impact of the Cold War and the struggles of civil rights and social justice that have shaped contemporary America. Also examined: the effects of globalization, technology, environmental challenges and religion in the post-war era. (CSU, UC)

HIST 0022. American Military History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Study of American Military History, from 1774 to present, covering the American War of Independence, War of 1812, the Barbary Wars, Mexican American War, Civil War, Native American Wars, Spanish American War, Boxer Rebellion, World War I, World War II, Korea, Vietnam, Gulf War of 1991, Afghanistan 2002, and Iraqi Freedom 2003. Includes the reading of historical works, literature, and historical documents. Examines the Powell Doctrine, the Principles of War, and the reasons and causes of war. (CSU, UC)

HIST 0023. Chicano/Mexican American History
Units: 3
Hours: 54 lecture
Comprehensive survey of the history of Mexican Americans, from the Pre-contact era to the present. Emphasis on experiences and contributions of Chicanas/os in the United States regarding culture, economy, government, law, education and politics. Includes a study of the United States Constitution. (CSU, UC)

HIST 0024. Russian History - 10th Century to Present
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of Russian history from the 10th century to the present. Includes the Slavic, Kievan, Muscovite, and Imperial eras through the Revolutions of 1917, the rise and fall of the Soviet Union, and the post-Soviet era. Emphasis on the major political, social, economic, and cultural trends that define Russian and Soviet civilizations. (CSU, UC)

HIST 0025. Native American History
Units: 3
Hours: 54 lecture
History of Native American nations and peoples from Pre-Contact to the present. Covers the impact of European contact, trade, and colonization; examines the effects of United States political, economic, and social policies on Native Americans throughout U.S. history with an emphasis on the U.S. Constitution and Federal Indian Law. Emphasis on Native American peoples' attempts to protect their sovereignty, retain their cultural identity, and revitalize their societies across time. (CSU, UC)

HIST 0026. Women in World History
Units: 3
Advisory: Eligibility for English C1000
Hours: 54 lecture
A broad and general exploration of women's historical involvement around the world from prehistory to the present. Emphasis on women's experiences and contributions to historical developments regarding social, economic, and cultural life, government, politics, personal issues, race and racism, ethnicity, sexuality and gender. Explores the ideologies, issues, and events that have shaped the lives, roles, and contributions of women to determine the role of women in politics, economics and society. (CSU, UC)

HIST 0027. Women in American History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of women's roles in American history from its pre-colonial origins to the present. Emphasis on women's experiences and contributions to historical developments regarding social, economic, and cultural life, government, politics, personal issues, the U.S. Constitution, race and racism, ethnicity, sexuality and gender. (CSU, UC)

HIST 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

HIST 0049. The American West
Units: 3
Advisory: Eligibility for English C1000
Hours: 54 lecture
History of the movement of the American people from the eastern coast of North America to the Pacific Ocean, including the history of the trans-Mississippi West from the 16th century to the present. Included will be the numerous historical issues associated with the region, including cultural contact and conflict, economic development, visions and meanings of the West, human interaction with nature and the environment, relationship between western states and the federal government, tourism, the growth of the sunbelt cities, and the shifting nature of race, class, gender, and power in the region. (CSU, UC)

HIST 0050. World History to 1500
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey to 1500 of the political, economic, social, geographic, and religious/philosophical characteristics of the major world civilizations and the interactions among these civilizations. (C-ID HIST 150) (CSU, UC)

HIST 0051. World History since 1500
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey from 1500 of the political, economic, social, and cultural developments of world civilizations with a special emphasis on exploring interactions among these civilizations. (C-ID HIST 160) (CSU, UC)

HIST 0095. Internship in History
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Investigate the history of other time periods and societies and compare to the contemporary world and one's own society.
- Convey historical arguments in writing.
- Demonstrate knowledge of the relationship between the Constitution and the political and social developments of the United States.
- Demonstrate knowledge of the roles of geography, culture, race, class, gender, and ethnicity in history.
- Differentiate primary and secondary sources and describe how each are used to make historical claims.

Human Development and Family

Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

The Human Development and Family degree program provides students with the necessary education for work in child development programs at various levels: assistant teacher, associate teacher, teacher, master teacher, site supervisor and director. It also includes instruction in infant care, preschool, school-age care, and children's advocacy. Course work prepares students who wish to go into the field of teaching, as well as work with families and social services.

Specific courses in the human development area afford students the opportunity to enhance their quality of life and to meet general education requirements through courses in lifespan development, marriage, management, family, parenting and diversity.

The California Commission on Teacher Credentialing grants permits to those preparing to teach children in early childhood education programs and in after-school child care programs. These permits, known as Child Development Permits, authorize service in state funded child care and development programs. The course work provided by the Sierra College Human Development and Family Department is approved by the California Commission on Teacher Credentialing as meeting the requirements for the California Child Development Permits. Specific permit requirements are listed after the Sierra College degrees. Human Development and Family course work also satisfies teaching requirements mandated by the California Department of Social Services licensing requirements for Title 22 (licensed) and Title 5 (State funded) programs.

Faculty

Michelle D. Boucher
Professor, Human Development and Family
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Debra M. Eastman
Professor, Human Development and Family
B.S., University of California, Davis
M.A., Washington State University

Lori A. Kearney-Capaul
Professor, Human Development and Family
A.A., Sierra College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Early Childhood Education Advisory Committee

- Creekside Oaks STAR, Lincoln, CA
- Chana High School, Auburn, CA
- Placer County Office of Education, Auburn, CA
- Lyanna Borja, Family Childcare
- The Play House
- STAR Education
- Lexington Hills KinderCare, Folsom, CA
- Placer County Office of Education, Little Blue Schoolhouse
- Child Development Incorporated
- Childtime Learning Center, Roseville, CA
- Joni Huffman, Family Childcare
- Michelle Johnson, Family Childcare
- Little Shapes Preschool, Lincoln, CA
- Phoenix Schools, Inc., Folsom, CA
- Kids First Now
- Little Monkey Preschool, Roseville, CA
- Cheri Quishenbery, Family Childcare
- Granite Bay Montessori, Roseville, CA
- California Association for the Education of Young Children
- Oakmont High School, Roseville, CA
- Placer County Action Council, Head Start, Auburn, CA
- Trandem Family Preschool, Auburn, CA
- Placer Community Action Council, Inc., Auburn, CA
- Pacific Autism Learning Services, Roseville, CA
- Nevada County Superintendent of Schools Office, Grass Valley, CA

Degrees/Certificates

Associate Degree for Transfer

- Early Childhood Education for Transfer (p. 182)

Associate Degree

- Early Childhood Education (p. 183)
-
- **Skills Certificates**
- Associate Teacher (p. 183)
- Infant Toddler (p. 183)
- Site Supervisor (p. 184)

California Commission on Teacher Credentialing Child Development Permit Information

- Child Development Associate Teacher (p. 184)
- Child Development Teacher (p. 184)
- Child Development Master Teacher (p. 184)
- Child Development Site Supervisor (p. 185)

Early Childhood Education for Transfer
AS-T Degree

The Associate in Science in Early Childhood Education for Transfer degree (AS-T) provides a clearly articulated curricular track to complete a bachelor's degree in Early Development, Care and Education (EDCE) for students who wish to transfer to CSU Sacramento. Completion of this degree involves a cohort of Sierra College students who meet for classes in Placer County as part of a partnership with CSUS. The cohort structure provides for additional student support, while the format better meets the needs of working adults. The degree provides a curricular track for students planning to transfer to other CSU campuses with the following bachelor's degrees: Child Development, Child and Adolescent Development, Human Development and Education.

The required courses are part of the CA Curriculum Alignment Project, Lower Division 8 coursework and expose students to the core principles and practices of the field in order to build a foundation for future personal, academic, or career paths. Students will be able to identify and evaluate factors that influence children's development; analyze early childhood programs for developmentally appropriate practices and program effectiveness; and exhibit professionalism within the field of Early Childhood Education by demonstrating skills relevant to the field.

Additionally, this degree is designed to facilitate students' successful transfer to CSU campuses that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as teaching, Child Development Specialist, Program Directors and Child Life Specialists. With a BA in ECE/Child Development, students are eligible for the Master Teacher and Site Supervisor levels of the CA Child Development Permit, using the Alternative Qualifications category.

Students earning an Associate in Science in Early Childhood Education for Transfer degree and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Early Childhood Education for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of C or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	3
HDEV 0003	Observation and Assessment	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child Growth and Development	3
HDEV 0010	Practicum Experience in Early Childhood Education	3
HDEV 0010L	Practicum Experience in Early Childhood Education Lab	1.5
HDEV 0025	Teaching in a Diverse Society	3
Total Units		**25.5**

Recommended Electives:

Code	Title	Units
HED 0002	Health Education	3
HDEV 0004	Child, Family, and Community	3

Early Childhood Education
AA or AS Degree
(formerly Child Development Teacher)

Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	3
HDEV 0003	Observation and Assessment	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child Growth and Development	3
HDEV 0025	Teaching in a Diverse Society	3
Select one of the following options:		**3-4.5**
HDEV 0010 & 0010L	Practicum Experience in Early Childhood Education and Practicum Experience in Early Childhood Education Lab	
HDEV 0027	Effective Classroom Management	
Total Units		**24-25.5**

Associate Teacher
Skills Certificate
The Associate Teacher Skills Certificate allows the student to work as a fully qualified teacher in a private early care and education (Title 22) program, serving infants/toddlers, preschool-age children, and school-age children in before-and-after school programs. Once the unit requirements for this certificate are fulfilled, it is recommended that students meet with a Human Development full time faculty member on how to obtain an Associate Teacher Permit through the Commission on Teacher Credentialing. With the Associate Teacher Child Development Permit, an individual can work as an assistant or associate teacher in a publicly funded (Title 5) early care and education program. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child Growth and Development	3
Total Units		**12**

Infant Toddler
Skills Certificate
This certificate program provides a comprehensive understanding of the skills necessary to care for infants and toddlers. When combined with the Associate Teacher Skills Certificate, and the completion of the following courses with grades of "C" or better, a student will qualify for an Early Childhood Education Infant Toddler Skills Certificate and exceed the minimum requirements to be a teacher of infants and toddlers in privately funded early childhood education programs (as required by Title 22 of the California Social Services Code of Regulations). Additionally, students with this certificate qualify as an associate teacher of infants and toddlers in publicly funded early childhood education programs (as required by Title 5 California Code of Regulations). A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HDEV 0011	Infant and Toddler Development	3
HDEV 0012	Infant/Toddler Care and Education	3
Total Units		**6**

Site Supervisor
Skills Certificate

A Child Development Site Supervisor supervises a child care and development program operating at a single site; provides service in the care, development and instruction of children in a child care and development program, and serves as a coordinator of curriculum and development. This certificate, when combined with completing the requirement for an AA/AS degree and appropriate work experience, enables the student to be able to apply to the Commission on Teacher Credentialing for a Child Development Permit at the Site Supervisor level and also enables the holder to apply to be a California Mentor Teacher. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HDEV 0038	Adult Supervision and Mentoring in Early Care and Education	3
HDEV 0040	Administration I: Programs in Early Childhood Education	3
HDEV 0041	Personnel and Leadership in Early Childhood Education	3
Total Units		**9**

California Commission on Teacher Credentialing Child Development Permit Information

Child Development Associate Teacher Permit

A Child Development Associate Teacher Permit authorizes the holder to provide service in the care, development, and instruction of children in a child care and development program, and supervise a Child Development Permit Assistant and an Aide. The student must apply to the Commission on Teacher Credentialing for a Child Development Permit at the Associate Teacher level after completing the following 12 units and appropriate work experience:

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	
HDEV 0004	Child, Family, and Community	
HDEV 0005	Introduction to Curriculum	
HDEV 0009	Child Growth and Development	

Work experience of 50 days of 3 plus hours per day within 2 years in a licensed child care facility

All course work must be completed with grades of "C" or better.

Child Development Teacher Permit

A Child Development Teacher Permit authorizes the holder to provide service in the care, development, and instruction of children in a child care and development program, and supervise a Child Development Associate Teacher, Assistant, and an Aide. The student must apply to the Commission on Teacher Credentialing for a Child Development Permit at the Teacher level after completing the following 40 units and appropriate work experience:

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	
HDEV 0004	Child, Family, and Community	
HDEV 0005	Introduction to Curriculum	
HDEV 0009	Child Growth and Development	

12 HDEV/ECE elective units

Work experience equaling 175 days of 3 plus hours per day within a 4-year period in a licensed child care facility

16 general education units from the following areas:

English/Language Arts

Math or Science

Social Sciences

Humanity and/or Fine Arts

All course work must be completed with grades of "C" or better.

Child Development Master Teacher Permit

A Child Development Master Teacher Permit authorizes the holder to provide service in the care, development, and instruction of children in a child care and development program and supervise a Child Development Teacher, Associate Teacher, Assistant, and an aide. The permit also authorizes the holder to serve as a coordinator of curriculum and staff development in a child care and development program. The student must apply to the Commission on Teacher Credentialing for a Child Development Permit at the Master Teacher level after completing the following 48 units and appropriate work experience:

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child Growth and Development	3
12 HDEV/ECE elective units		
16 general education units		
HDEV 0038	Adult Supervision and Mentoring in Early Care and Education	3
Work experience equaling 350 days of 3 plus hours per day within a 4-year period in a licensed child care facility		
6 units in an area of specialization from the following:		
HDEV 0011 & HDEV 0012	Infant and Toddler Development and Infant/Toddler Care and Education	
HDEV 0021 & HDEV 0022	Psychology of Intimate Relationships and Family and The Family	

| HDEV 0030 & ART 0002 | Creative Process in Children and Two-Dimensional Design Foundations |
| HDEV 0030 & ARHI 0101 | Creative Process in Children and Art Appreciation |

All course work must be completed with grades of "C" or better.

Child Development Site Supervisor Permit

A Child Development Site Supervisor Permit authorizes the holder to supervise a child care and development program operating at a single site; provide service in the care, development, and instruction of children in a child care and development program; and serve as a coordinator of curriculum and staff development in a child care and development program. The student must apply to the Commission on Teacher Credentialing for a Child Development Permit at the Site Supervisor level, after completing requirements for an AA/AS degree, including the following courses and appropriate work experience:

Required Courses

Code	Title	Units
HDEV 0002	Principles and Practices of Teaching Young Children	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child Growth and Development	3
12 HDEV/ECE elective units		
16 general education units		
HDEV 0038	Adult Supervision and Mentoring in Early Care and Education	3
HDEV 0040	Administration I: Programs in Early Childhood Education	3
HDEV 0041	Personnel and Leadership in Early Childhood Education	3
Work experience of 350 days of 3 plus hours per day within 4 years, including at least 100 days of supervising adults in a licensed child care facility		

All course work must be completed with grades of "C" or better.

Courses

Understanding course descriptions (p. 311)

HDEV 0001. Human Development Through the Lifespan
Units: 3
Hours: 54 lecture
Study of the physical, cognitive, psychosocial and emotional changes in development through the life span. Focuses on practical application of developmental principles and patterns of growth from conception through late adulthood, including death and bereavement processes. Designed as a foundation course for careers in social service, psychological, health and medical fields. (CSU, UC-with unit limitation)

HDEV 0002. Principles and Practices of Teaching Young Children
Units: 3
Hours: 54 lecture
Examination of the underlying theoretical principles of developmentally appropriate practices in early care and education. Emphasis on the role of the early childhood educator, the importance of teacher child relationships, curriculum, and effective teaching strategies and environmental design for supporting development in young children. This course includes a review of the historical roots of early childhood programs, and the evolution of the professional practices promoting advocacy, ethics, and professional identity including career pathways and professional standards. (C-ID ECE 120) (CSU)

HDEV 0003. Observation and Assessment
Units: 3
Prerequisite: Completion of HDEV 1 or 9 with grade of "C" or better; completion of HDEV 2 with grade of "C" or better
Hours: 54 lecture
The appropriate use of assessment and observation tools and strategies to document young children's development, learning and behavior. Emphasizes use of findings to inform and plan learning environments and experiences. Recording strategies, rating systems, portfolios, and multiple assessment tools will be explored, along with strategies for collaboration with families and professionals. Child observations will be conducted and analyzed. (C-ID ECE 200) (CSU)

HDEV 0004. Child, Family, and Community
Units: 3
Hours: 54 lecture
An examination of the processes of socialization focusing on the interrelationship of family, school, and community. Examines the influence of historical and socio-cultural contexts. Explores the role of collaboration between family, community, and schools in supporting children's' development. (C-ID CDEV 110) (CSU, UC)

HDEV 0005. Introduction to Curriculum
Units: 3
Prerequisite: Completion of HDEV 1 or 9 with grade of "C" or better; completion of HDEV 2 with grade of "C" or better
Hours: 54 lecture
Presents an overview of knowledge and skills related to providing developmentally appropriate curriculum and environments for all young children. Explores teaching strategies and curriculum development based on theoretical frameworks, observation, and assessment. Emphasizes the teacher's role in supporting development and learning across the curriculum, including all content areas. (C-ID ECE 130) (CSU)

HDEV 0007. Health, Safety, and Nutrition
Units: 3
Formerly known as HDEV 6 and 8
Hours: 54 lecture
Laws, regulations, standards, policies, procedures, and best practices related to health, safety, and nutrition in early childhood settings. Includes prevention strategies, nutrition, and meal planning for various ages and planning educational experiences integrated into daily routines designed to teach children positive health, safety, and nutrition habits. (C-ID ECE 220) (CSU)

HDEV 0009. Child Growth and Development
Units: 3
Hours: 54 lecture
This course examines the major physical, cognitive/language, social and emotional developmental milestones for children from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory, students will evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. Designed as a foundation course for careers in early childhood and for those seeking a teaching credential. (C-ID CDEV 100) (CSU, UC-with unit limitation)

HDEV 0010. Practicum Experience in Early Childhood Education
Units: 3
Prerequisite: Completion of HDEV 3 and 5 with grades of "C" or better
Corequisite: Concurrent enrollment in HDEV 10L
Advisory: Completion of HDEV 25 with grade of "C" or better
Hours: 54 lecture
Focuses on child centered, play-oriented approaches to teaching, learning, and assessment. Knowledge of developmentally appropriate curriculum content areas will also be emphasized as students design and evaluate experiences that promote development and learning for all young children. Students must co-enroll in HDEV 10L to secure their practicum/student teaching space in a local high quality child development program. (combined with HDEV 0010L C-ID ECE 210) (CSU)

HDEV 0010L. Practicum Experience in Early Childhood Education Lab
Unit: 1.5
Prerequisite: Completion of HDEV 3 and 5 with grades of "C" or better
Corequisite: Concurrent enrollment in HDEV 10
Advisory: Completion of HDEV 25 with grade of "C" or better
Hours: 90 laboratory
Ninety hours of student teaching experience will be required for this course, in addition to enrollment in the lecture portion of HDEV 10. Students will be placed in pre-selected local classroom settings within district boundaries. Please see class schedule for student teaching placement meeting information, as well as immunization requirements. (combined with HDEV 0010 C-ID ECE 210) (CSU)

HDEV 0011. Infant and Toddler Development
Units: 3
Hours: 54 lecture
A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. Applies theoretical frameworks to interpret behavior and interactions between heredity and environment. Emphasizes the role of family and relationships in development. (CSU)

HDEV 0012. Infant/Toddler Care and Education
Units: 3
Hours: 54 lecture
Applies current theory and research to the care and education of infants and toddlers in group settings. Examines essential policies, principles and practices that lead to quality care and developmentally appropriate curriculum for children birth to 36 months. (CSU)

HDEV 0021. Psychology of Intimate Relationships and Family
Units: 3
Also known as PSYC 110
Hours: 54 lecture
Study of the meaning and functions of intimate relationships and family. Consideration given to the nature of commitments, sexuality, alternative relationships, communication, conflict resolution, economics, parenting, crises, and marital separation. Recommended for majors in Human Development and Family and for those in human service careers. (CSU, UC)

HDEV 0022. The Family
Units: 3
Also known as SOC 4
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the analysis of the family as a social institution. Of particular interest are the changing structure of family, gender roles, dating, marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

HDEV 0025. Teaching in a Diverse Society
Units: 3
Hours: 54 lecture
Examines the impact of various societal influences on the development of children's social identity. Covers developmentally appropriate, inclusive, and anti-bias approaches. Self-examination and reflection on issues related to social identity, stereotypes, and bias will be emphasized. (C-ID ECE 230) (CSU)

HDEV 0027. Effective Classroom Management
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Hours: 54 lecture
Identify and analyze challenging behaviors and learn to implement research based strategies and curriculum that improve the social and emotional climate in the classroom. Emphasizes the connection between children's social and emotional development and their success in the classroom. All factors contributing to behavior, including teacher biases and family dynamics, will be analyzed. This course will address behavior issues of both preschool and elementary aged children and focuses on the prevention of challenging behaviors. (CSU)

HDEV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

HDEV 0030. Creative Process in Children
Units: 3
Hours: 54 lecture
Introduction to the aesthetic development and creative expression of children to age 8. Exploration of art methods, materials, creative process, and developmental stages. Enables students to implement effective teaching strategies for encouraging children's artistic and overall creative development. (CSU)

HDEV 0038. Adult Supervision and Mentoring in Early Care and Education
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Hours: 54 lecture
Methods and principles of supervising student teachers, volunteers, staff, and other adults in early childcare and education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. (CSU)

HDEV 0040. Administration I: Programs in Early Childhood Education
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Advisory: Completion of HDEV 3 and 5 with grades of "C" or better
Hours: 54 lecture
Introduction to the administration of early childhood programs. Covers program types, budget, management, regulations, laws and development and implementation of policies and procedures. Examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program. (CSU)

HDEV 0041. Personnel and Leadership in Early Childhood Education
Units: 3
Formerly known as HDEV 41A/41B/41C
Prerequisite: Completion of HDEV 40 with grade of "C" or better
Hours: 54 lecture
Effective strategies for personnel management and leadership in early care and education settings. Includes legal and ethical responsibilities, supervision techniques, professional development, and reflective practices for a diverse and inclusive early care and education program. (CSU)

HDEV 0044. Children's Literature
Units: 3
Also known as ENGL 44
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Examination of high quality children's literature, both classic and contemporary, including criteria for selection, uses in child development and education, and practices in presentation and analysis. It includes the discussion of the history of children's literature and current issues such as censorship, literacy, multiculturalism, and diversity. This course is intended for prospective and current teachers, preschool aides, early child education (ECE) majors, librarians, parents, and students interested in the field of literature for children ages 0-13. (C-ID ENGL 180) (CSU, UC)

HDEV 0046. Language and Literacy
Units: 3
Hours: 54 lecture
Designed to support educators in the area of early language and literacy development. Focus on planning and implementing developmentally appropriate experiences that enhance the quality and quantity of oral language, provide for a print-rich environment and assist children in their growing understanding of print. Encourages literacy learning in a meaningful context and provides strategies for working with families and diverse populations. (CSU)

HDEV 0061. Nutrition Throughout the Life Cycle
Units: 3
Also known as NUTF 13
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Examination of nutritional requirements, concerns, and interventions during several stages of the life cycle, from preconception to old age. Analysis of cultural, environmental, physical, and economic factors affecting nutritional status. Practical application of adequate nutrition through dietary selection and promotion of health throughout each life cycle stage. (CSU)

HDEV 0095. Internship in Human Development and Family
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Identify and evaluate factors that influence child/human development from various theoretical perspectives and current research findings.
- Analyze early childhood lab sites and/or community schools for developmentally appropriate practices and program effectiveness.
- Exhibit professionalism within the field of Early Childhood Education by demonstrating skills relevant to the field that include incorporating meaningful curriculum, content knowledge, culturally and linguistically appropriate learning environments, and observation, documentation, and assessment of young children.

Humanities
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The study of Humanities offers an approach which integrates the arts, literature, history, music, philosophy and other disciplines. The program focuses on the culture of human civilization from classic antiquity through the Middle Ages and Renaissance to the Modern Era. The objective of the Humanities is to give a sense of wholeness to human experience.

Faculty

Jason File
Professor, Humanities

B.A., University of California, San Diego
M.A., University of North Carolina

Degrees/Certificates

Associate Degrees

- Humanities—Asian Studies (p. 188)
- Humanities—Diverse Perspectives (p. 188)
- Humanities—General (p. 188)

Humanities—Asian Studies
AA Degree

The AA degree in Humanities—Asian Studies provides preparation for upper-division course work in Humanities at a four-year university. The degree will guide students to examine the Asian experience through its ideas (philosophy), through its commitment to its culture, traditions and rituals (religions) and through its applied practices (the disciplines for self-development of body/mind health, meditation and martial arts). Courses are offered which provide opportunities for self-discovery and the construction of a coherent outlook and critical reason. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
HUM 0001	Introduction to Humanities I	3
HUM 0002	Introduction to Humanities II	3
HUM 0003	Introduction to Asian Humanities	3
Select 10-12 units from the following:		**10-12**
ARHI 0155	History of Islamic Art	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HUM 0010	World Religions	
JPN 0001	Elementary Japanese - Level I	
KIN 0019	Basic Self Defense	
KIN 0062	Fundamentals of Yoga	
KIN 0068	Introduction to Meditation	
PHIL 0013	Introduction to Asian Philosophy	
Total Units		**19-21**

Humanities—Diverse Perspectives
AA Degree

The AA degree in Humanities—Diverse Perspectives provides preparation for upper division course work in Humanities at a four-year university. The Humanities—Diverse Perspectives AA degree pattern guides students through a series of courses that focus specifically on examining History, Art, Architecture, Philosophy, Drama, Literature and Music from diverse perspectives. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
HUM 0001	Introduction to Humanities I	3
HUM 0002	Introduction to Humanities II	3
HUM 0003	Introduction to Asian Humanities	3
Select 12 units from the following:		**12**
ARHI 0132	History of Women in Art	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
ENGL 0016	Introduction to LGBTIQ Literature	
ENGL 0027	Literature by Women	
ETHN 0011	Introduction to Ethnic Studies	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HUM 0005	Classical Roots of the Contemporary Western World	
HUM 0009	Introduction to Women, Gender and Religion (also WMST 0003)	
HUM 0010	World Religions	
HUM 0015	Introduction to Mythology	
HUM 0017	Introduction to Atheism	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (WMST 0002)	
LGBT 0002	Queer (LGBTIQ) Film History	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
Total Units		**21**

Humanities—General
AA Degree

The AA degree in Humanities—General provides preparation for upper division course work in Humanities at a four-year university. The degree acquaints students with the relevant eras, ideas, ideals, values and terminology endemic to the field as expressed in art, music, drama, literature, philosophy and religion. The Humanities—General AA degree pattern affords students the widest array of Humanities coursework from which to choose to satisfy transfer institution requirements. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete

a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
HUM 0001	Introduction to Humanities I	3
HUM 0002	Introduction to Humanities II	3
HUM 0003	Introduction to Asian Humanities	3
Select 12 units from the following:		**12**
AAD 0012	Visual Communication (also COMM 0012)	
ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (also PHOT 0010)	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
ENGL 0001B	Critical Thinking and Writing about Literature	
ENGL 0016	Introduction to LGBTIQ Literature	
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
ENGL 0027	Literature by Women	
ENGL 0029	Introduction to Drama as Literature	
ENGL 0030A	American Literature - Beginnings through Civil War	
ENGL 0030B	American Literature - Civil War to the Present	
ENGL 0032	Introduction to Poetry	
ENGL 0033	Introduction to Shakespeare (The Drama)	
ENGL 0034	Introduction to the Novel	
ENGL 0035	Introduction to the Short Story	
ENGL 0037	American Film Masterpieces	
ENGL 0038	International Film Masterpieces	
ENGL 0040	The Filmed Novel	
ENGL 0042	The Documentary Film	
ENGL 0044	Children's Literature (also HDEV 0044)	
ENGL 0045	Young Adult Literature	
ENGL 0046A	English Literature	
ENGL 0046B	English Literature	
ENGL 0047A	World Literature	
ENGL 0047B	World Literature	
ENGL 0048	Literature of Science Fiction	
HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
HUM 0005	Classical Roots of the Contemporary Western World	
HUM 0009	Introduction to Women, Gender and Religion (also WMST 0003)	
HUM 0010	World Religions	
HUM 0015	Introduction to Mythology	
HUM 0017	Introduction to Atheism	
HUM 0020	Introduction to the Hebrew Bible	
HUM 0021	Introduction to the New Testament	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (also WMST 0002)	
LGBT 0002	Queer (LGBTIQ) Film History	
MUS 0002	Music Appreciation	
MUS 0011	Introduction and History of Jazz	
MUS 0012A	Survey of Music History and Literature to 1750	
MUS 0012B	Survey of Music History and Literature from 1750 to Present	
MUS 0013	Introduction to Music: History of Rock and Roll	
PHIL 0002	Introduction to Philosophy: Ethics	
PHIL 0004	Introduction to Critical Thinking	
PHIL 0006	Introduction to Philosophy: Knowledge and Reality	
PHIL 0010	Philosophy of Religion	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0020	History of Ancient Greek Philosophy	
PHIL 0021	History of Modern Philosophy	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0060	Introduction to Environmental Ethics	
PHIL 0065	Introduction to the Philosophy of Science	
THEA 0013	Introduction to Theatre	
Total Units		**21**

Courses

Understanding course descriptions (p. 311)

HUM 0001. Introduction to Humanities I
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the western cultural tradition through a survey of its religion, art, philosophy, literature, music, and architecture; covers prehistory through the Middle Ages. (CSU, UC)

HUM 0002. Introduction to Humanities II
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the western cultural tradition through a survey of its religion, art, philosophy, literature, music, and architecture; covers the Renaissance through the modern world. (CSU, UC)

HUM 0003. Introduction to Asian Humanities
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the religion, art, philosophy, literature, music, and architecture of Asia - from prehistory to the present - with an emphasis on India, China and Japan. (CSU, UC)

HUM 0005. Classical Roots of the Contemporary Western World
Units: 3
Formerly known as HUM 300G
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An examination of the Classical World's influence on the Contemporary Western World with special emphasis on theology, body image, love and sex, gender roles, democracy, conceptions of the good life, and entertainment based upon evidence from the art, architecture, literature, and philosophy of the Classical World. (CSU, UC)

HUM 0009. Introduction to Women, Gender and Religion
Units: 3
Also known as WMST 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Religion from a feminist perspective through a cross-cultural examination of major religious traditions of the East and West, as well as tribal faith practices. Emphasis on the historical role of women and gender in rituals, sacred texts, institutional structures, doctrine and religious iconography with respect to the impact on contemporary women regarding faith, politics and identity. (CSU, UC)

HUM 0010. World Religions
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Interdisciplinary survey of the beliefs and practices of the world's major religious traditions; focuses on primal religions, Hinduism, Judaism, Taoism, Confucianism, Buddhism, Christianity and Islam. (CSU, UC)

HUM 0015. Introduction to Mythology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The major elements of western mythology, its history and development as part of the human experience and its influence on art, literature and politics. (CSU, UC)

HUM 0017. Introduction to Atheism
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the philosophy of atheism, its historical roots, major thinkers, and expressions in art, literature and philosophy. Includes history of free inquiry and thought, secular humanism, humanistic ethics and scientific naturalism. (CSU, UC)

HUM 0020. Introduction to the Hebrew Bible
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the texts of the Hebrew Bible ("Old Testament" or "Torah") and associated writings from the Ancient Near East. Analyzes the texts in their historical and cultural context, and surveys their various genres (poetry, prophecy, law, mythology, history, wisdom, etc.) Explores the relationship between Hebrew Scriptures and archaeology, literature, history, current Biblical scholarship, and women's studies. (CSU, UC)

HUM 0021. Introduction to the New Testament
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to New Testament literature in its cultural and historical context. Employs methods of critical analysis of Biblical materials, surveying issues related to their authorship, genre and content. Explores the historical Jesus, literary depictions of Jesus in the gospels, the career and writings of the apostle Paul, the structure and beliefs of the early Christian church, and Christian apocalypticism. Emphasizes the impact of the New Testament on western culture. (CSU, UC)

HUM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

HUM 0095. Internship in Humanities
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Critically evaluate cultural artifacts (e.g., a work of architecture, music, art, literature, philosophy) using the disciplinary language of the Humanities.
- Analyze past cultural achievements in the context of present day intellectual expressions.
- Evaluate a cultural artifact in the context of the historical era in which it was produced.
- Create clear, cogent and coherent essays on topics relevant to the discipline of Humanities.

Information Technology

Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B3, Rocklin Campus

Overview

Information Technology programs prepare students for a wide array of Information Technology (IT) career paths. IT encompasses computer professional careers and positions, from Tech Support to Cyber Security, and from Office Work to Business Analyst. Careers in IT deal with the design, creation, management, maintenance, and business use of the varied components of computer systems, including software, hardware, networks, and the cloud. The field spans a broad range of industries, including technology, healthcare, finance, retail, government and education; and includes jobs that involve business computer applications, databases, technical and customer support services, web authoring/developing, Internet information research, network administration, and cybersecurity. Some courses prepare students for industry certifications such as CompTIA's, A+, Network+, Security+, or Microsoft's MSCE. The curriculum also provides valuable computer experience and training for students who are enrolled in other disciplines of the College.

Faculty

Richard S. Monsen
Professor, Information Technology
B.S., California State University, Sacramento

Annette A. Nylander
Professor, Information Technology
A.S., Sierra College
B.A., The Union Institute
M.B.A., DeVry University, Keller Graduate School of Management

Alex Torres
Assistant Professor, Information Technology
B.S., Rochester Institute of Technology
M.S., American Military University

Information Technology Advisory Committee

- City of Roseville, Roseville, CA
- California Department of Water Resources
- California Prison Industry Authority, Folsom, CA
- Cisco, Greater Sacramento Region
- El Dorado County, El Dorado County, CA
- Emergency Medical Services Authority, State of California, Rancho Cordova, CA (HQ)
- Hewlett Packard, Roseville, CA
- Kai Partners
- Placer County, Placer County, CA
- Sutter Health, Sacramento, CA (HQ)

Degrees/Certificates

Associate Degrees

- Information Technology—Cloud Computing (p. 191)
- Information Technology—Cybersecurity (p. 192)
- Information Technology—Data Analytics (p. 192)
- Information Technology—IT Technician (p. 192)
- Information Technology—Network Technician (p. 193)

Certificates of Achievement

- Information Technology—Cloud Computing (p. 193)
- Information Technology—Cybersecurity (p. 193)
- Information Technology—Data Analytics (p. 194)
- Information Technology—IT Technician (p. 194)
- Information Technology—Network Technician (p. 194)

Skills Certificates

- Cloud Skills (p. 195)
- Data Specialist (p. 195)
- Information Assurance and Cyber Defense (p. 195)
- IT Technician (p. 195)

Information Technology - Cloud Computing
AS Degree

Successful completion of the curriculum in Cloud Computing prepares students to advance their Information Technology careers in jobs such as Cloud Administrator and Cloud Technician. Many of the courses also help prepare students for industry recognized certification exams from Amazon Web Services and CompTIA. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
IT 0115	Server Systems Administration	3
IT 0170	AWS Cloud Foundations	3
IT 0171	CompTIA Cloud+ Computing Concepts and Practices	3
IT 0175	AWS Cloud Architecting	3
IT 0176	Cloud Computing - Amazon Web Services System Operations	3
Plus Additional 6 Units from		**6**
IT 0055	Database Management	
IT 0060	Project Management Concepts and Software	
IT 0065	Data Analytics/Visualization Using Tableau	
IT 0075	Python for Many Uses	

IT 0120	Introduction to Information Systems Security	
Total Units		**27**

Information Technology—Cybersecurity
AA or AS Degree
(formerly Computer Information Systems—Networking and Security)

Successful completion of the curriculum in Cybersecurity prepares students to advance their Information Technology careers as network administrators and cyber security professionals. Many of the courses also help prepare students for industry recognized certification exams. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
IT 0075	Python for Many Uses	3
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
IT 0115	Server Systems Administration	3
IT 0120	Introduction to Information Systems Security	3
IT 0125	Switching, Routing and Wireless Essentials	3
IT 0140	Implementing Network Security and Firewalls	3
IT 0145	Introduction to Cybersecurity: Ethical Hacking	3
Select 6 units from the following:		**6**
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0050	Introduction to Unix/Linux	
IT 0060	Project Management Concepts and Software	
IT 0095	Internship in Information Technology	
IT 0100	Information and Communication Technology Essentials	
IT 0150	Principles of Cybersecurity Analysis	
IT 0165	Computer Forensics Fundamentals	
Total Units		**30**

Information Technology—Data Analytics
AS Degree
Data analysis is the process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information and supporting decision-making. Almost all industries examine large amounts of data to uncover hidden patterns, correlations and other insights. This degree will start you on a path to finding the answers needed in any environment by teaching how to work with and understand the data. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
BUS 0252	Excel for Business Applications	3
IT 0015	Business Information Systems	3
IT 0055	Database Management	3
IT 0065	Data Analytics/Visualization Using Tableau	3
IT 0075	Python for Many Uses	3
MATH 0013	Introduction to Statistics	4-6
Select 6 units from the following:		**6**
IT 0060	Project Management Concepts and Software	
IT 0080	IoT - Internet of Things	
IT 0095	Internship in Information Technology	
Total Units		**25-27**

Information Technology—IT Technician
AA or AS Degree
(formerly Computer Information Systems—IT Technician)

The IT Technician program prepares students for entry level positions in computer retail, helpdesk, system administration, computer application installation, and technically oriented administrative roles. Many of the courses also help prepare students for industry recognized certification examinations. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
BUS 0250	Microsoft Applications for Business	3
IT 0015	Business Information Systems	3
IT 0100	Information and Communication Technology Essentials	4
IT 0105	Computer Network Fundamentals	3

IT 0110	Installing, Configuring and Administering a Client OS	3
Select 6 units from the following:		**6**
BUS 0261	Customer Service Skills	
BUS 0265	Business Communications	
or BUS 0266	Introduction to Oral Communication	
IT 0095	Internship in Information Technology	
Total Units		**22**

Information Technology—Network Technician
AS Degree

The Network Technician program prepares students to work in the Information Technology industry performing a variety of network related jobs, such as Network Technician, Network Administrator, and Network Engineer. Students learn important skills like installation, configuration and troubleshooting of complex computer networks. This program also prepares students to take Cisco's CCNA certification, which is the premier industry-recognized certification in data networking. Many of the courses in this program also help prepare students for other industry recognized certification exams such as the CompTIA A+, Network+ and Security+ certifications.

For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
IT 0105	Computer Network Fundamentals	3
IT 0115	Server Systems Administration	3
IT 0120	Introduction to Information Systems Security	3
IT 0125	Switching, Routing and Wireless Essentials	3
IT 0130	Cisco CCNA 3 Enterprise Networking, Security and Automation	3
IT 0140	Implementing Network Security and Firewalls	3
Select 3-4 units from the following:		**3-4**
IT 0015	Business Information Systems	
IT 0075	Python for Many Uses	
IT 0080	IoT - Internet of Things	
IT 0100	Information and Communication Technology Essentials	
IT 0110	Installing, Configuring and Administering a Client OS	
Total Units		**21-22**

Information Technology - Cloud Computing
Certificate of Achievement

Successful completion of the curriculum in Cloud Computing prepares students to advance their Information Technology careers in jobs such as Cloud Administrator and Cloud Technician. Many of the courses also help prepare students for industry recognized certification exams from Amazon Web Services and CompTIA.

Required Courses:

Code	Title	Units
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
IT 0115	Server Systems Administration	3
IT 0170	AWS Cloud Foundations	3
IT 0171	CompTIA Cloud+ Computing Concepts and Practices	3
IT 0175	AWS Cloud Architecting	3
IT 0176	Cloud Computing - Amazon Web Services System Operations	3
Plus Additional 6 Units from		**6**
IT 0055	Database Management	
IT 0060	Project Management Concepts and Software	
IT 0065	Data Analytics/Visualization Using Tableau	
IT 0075	Python for Many Uses	
IT 0120	Introduction to Information Systems Security	
Total Units		**27**

Information Technology—Cybersecurity
Certificate of Achievement

(formerly Computer Information Systems—Networking and Security)

Successful completion of the curriculum in Cybersecurity prepares students to advance their Information Technology careers as network administrators and cyber security professionals. Many of the courses also help prepare students for industry recognized certification exams. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
IT 0075	Python for Many Uses	3
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
IT 0115	Server Systems Administration	3
IT 0120	Introduction to Information Systems Security	3
IT 0125	Switching, Routing and Wireless Essentials	3
IT 0140	Implementing Network Security and Firewalls	3

IT 0145	Introduction to Cybersecurity: Ethical Hacking	3
Select 6 units from the following:		**6**
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0050	Introduction to Unix/Linux	
IT 0060	Project Management Concepts and Software	
IT 0095	Internship in Information Technology	
IT 0100	Information and Communication Technology Essentials	
IT 0150	Principles of Cybersecurity Analysis	
IT 0165	Computer Forensics Fundamentals	
Total Units		**30**

Information Technology—Data Analytics
Certificate of Achievement

Data analysis is the process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information and supporting decision-making. Almost all industries examine large amounts of data to uncover hidden patterns, correlations and other insights. This degree will start you on a path to finding the answers needed in any environment by teaching how to work with and understand the data. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
BUS 0252	Excel for Business Applications	3
IT 0015	Business Information Systems	3
IT 0055	Database Management	3
IT 0065	Data Analytics/Visualization Using Tableau	3
IT 0075	Python for Many Uses	3
MATH 0013	Introduction to Statistics	4-6
Select 6 units from the following:		**6**
IT 0060	Project Management Concepts and Software	
IT 0080	IoT - Internet of Things	
IT 0095	Internship in Information Technology	
Total Units		**25-27**

Information Technology—IT Technician
Certificate of Achievement
(formerly Computer Information Systems—IT Technician)

The IT Technician program prepares students for entry level positions in computer retail, helpdesk, system administration, computer application installation, and technically oriented administrative roles. Many of the courses also help prepare students for industry recognized certification examinations. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
BUS 0250	Microsoft Applications for Business	3
IT 0015	Business Information Systems	3
IT 0100	Information and Communication Technology Essentials	4
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
Select 6 units from the following:		**6**
BUS 0261	Customer Service Skills	
BUS 0265	Business Communications	
or BUS 0266	Introduction to Oral Communication	
IT 0095	Internship in Information Technology	
Total Units		**22**

Information Technology—Network Technician
Certificate of Achievement

The Network Technician program prepares students to work in the Information Technology industry performing a variety of network related jobs, such as Network Technician, Network Administrator, and Network Engineer. Students learn important skills like installation, configuration and troubleshooting of complex computer networks. This program also prepares students to take Cisco's CCNA certification, which is the premier industry-recognized certification in data networking. Many of the courses in this program also help prepare students for other industry recognized certification exams such as the CompTIA A+, Network+ and Security+ certifications. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
IT 0105	Computer Network Fundamentals	3
IT 0115	Server Systems Administration	3
IT 0120	Introduction to Information Systems Security	3
IT 0125	Switching, Routing and Wireless Essentials	3
IT 0130	Cisco CCNA 3 Enterprise Networking, Security and Automation	3
IT 0140	Implementing Network Security and Firewalls	3
Select 3-4 units from the following:		**3-4**
IT 0015	Business Information Systems	
IT 0075	Python for Many Uses	
IT 0080	IoT - Internet of Things	
IT 0100	Information and Communication Technology Essentials	
IT 0110	Installing, Configuring and Administering a Client OS	
Total Units		**21-22**

Cloud Skills
Skills Certificate

Completion of this certificate provides students with entry level Cloud Computing skills needed in cloud technician support positions. It also supports management professionals that need to understand how Cloud Computing can be used to expand computer infrastructures and the costs models that must be taken into account. Hands-on skills labs will provide a solid foundation of how to implement cloud services. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
IT 0170	AWS Cloud Foundations	3
IT 0105	Computer Network Fundamentals	3
IT 0110	Installing, Configuring and Administering a Client OS	3
IT 0115	Server Systems Administration	3
IT 0171	CompTIA Cloud+ Computing Concepts and Practices	3
Total Units		**15**

Data Specialist
Skills Certificate

This skills certificate provides students with the specific knowledge and skills needed for an entry-level data analyst position or to expand their current job skills to include basic data analytics. Today's business decisions are data driven and the skills developed in this sequence of classes will allow you to help businesses understand their data better. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
BUS 0252	Excel for Business Applications	3
IT 0015	Business Information Systems	3
IT 0055	Database Management	3
IT 0065	Data Analytics/Visualization Using Tableau	3
Total Units		**12**

Information Assurance and Cyber Defense
Skills Certificate

This skills certificate provides students with the specific knowledge and skills of an entry level cyber security professional. This foundational level was established by the Department of Homeland Security (DHS) and the National Security Agency (NSA) through their co-sponsored National Centers of Academic Excellence in Information Assurance and Cyber Defense (CAE2Y) program. This skills certificate prepares students for a variety of information technology positions in the ICT industry sector, such as network administrator, network engineer, IT security professional, and security analyst. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
IT 0105	Computer Network Fundamentals	3
IT 0115	Server Systems Administration	3
IT 0120	Introduction to Information Systems Security	3
CSCI 0012	Programming Concepts and Methodology I	3
Total Units		**12**

IT Technician
Skills Certificate

This skills certificate provides students with the specific knowledge and skills needed for an entry-level desktop support positions. The IT industry is a high demand area and this certificate can help you gain employment while continuing to build on your career and educational pathways. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses:

Code	Title	Units
IT 0100	Information and Communication Technology Essentials	4
IT 0105	Computer Network Fundamentals	3
IT 0115	Server Systems Administration	3
Total Units		**10**

Courses

Understanding course descriptions (p. 311)

IT 0015. Business Information Systems
Units: 3
Formerly known as CIS 62
Advisory: Eligibility for ENGL C1000
Hours: 72 (54 lecture, 18 laboratory)
Examination of information systems and their role in business. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems. (C-ID ITIS 120) (CSU)

IT 0028. Independent Study
Units: 1-3
Formerly known as CIS 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

IT 0055. Database Management
Units: 3
Formerly known as CIS 90
Advisory: Completion of Bus 252 with grade of "C" or better or strong understanding of MS Office Application navigation
Hours: 72 (54 lecture, 18 laboratory)
Discover the intricacies of relational databases using the current version of Microsoft Access. Includes designing database structures: tables, queries, forms, reports, and macros. Also includes integrating with the Web, Excel and other programs. Emphasis on hands-on learning. (C-ID ITIS 180) (CSU)

IT 0060. Project Management Concepts and Software
Units: 3
Formerly known as CIS 136
Advisory: Completion of BUS 252 and/or IT 55 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Explores Project Management concepts and terminologies along with the use of Microsoft Office Project and other project management tools through discussions, hands-on exercises and classroom learning experiences. Includes WBS, budgeting, and resource allocation and other important PM topics such as Scope and Project Team Development. Helps prepare students to use the software package in their daily duties as a project manager or project assistant. Helps prepare students to take the Certified Associate in Project Management - CAPM exam from PMI or the CompTIA Project+ exam. (not transferable)

IT 0065. Data Analytics/Visualization Using Tableau
Units: 3
Formerly known as CIS 91
Advisory: Completion of BUS 252 and IT 55 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Learn how to use Tableau, a leading data analysis and visualization tool, to bring the world's data into views that everyone can use and understand. Go beyond basic charts by building powerful dashboards and drill down reports to support business decision makers or help explain visually the global impact of a single voice. (not transferable)

IT 0075. Python for Many Uses
Units: 3
Advisory: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Learn to use Python to manipulate data for analytics, to manage IoT devices and/or for creating scripts to improve network security. This course will start at a very basic level and work up to applied solutions for real world work environments. (CSU)

IT 0080. IoT - Internet of Things
Units: 3
Advisory: Eligibility for ENGL C1000; Completion with grades of "C" or better or concurrent enrollment in IT 75 and IT 105 recommended
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the Internet of Things (IoT), where people, processes, things, and data are connected via emerging Internet technologies. A variety of networking and computer hardware devices will be integrated into end-to-end systems to solve practical problems. (CSU)

IT 0090. IT Fundamentals
Unit: 1.5
Hours: 36 (27 lecture, 9 laboratory)
Designed to prepare students to explain the basics of computing, IT infrastructure, software development, database use, installing software, establishing basic networking connectivity, and identifying/preventing basic security risks. This course is intended for students who are considering a career in IT and/or later considering the pursuit of completing the CompTIA Fundamentals+ (ITF+) certification exam. (not transferable)

IT 0095. Internship in Information Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

IT 0100. Information and Communication Technology Essentials
Units: 4
Formerly known as CIS 26
Hours: 90 (72 lecture, 18 laboratory)
Provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level Information Communication Technology (ICT) professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, cloud computing, and the responsibilities of an ICT professional will be introduced. A special emphasis is placed on software, hardware, and network troubleshooting techniques. This course is intended to help students prepare for the CompTIA A+ certification exams. (C-ID ITIS 110) (CSU)

IT 0105. Computer Network Fundamentals
Units: 3
Formerly known as CIS 65
Advisory: Completion of IT 100 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, implement Internet Protocol (IP) and enterprise technologies, including cloud and virtualization. Students will apply the knowledge and skills required to troubleshoot, configure, and manage common network devices; establish basic network connectivity; and implement network security, standards, and protocols. Preparation for the CompTIA Network+ certification exam. (C-ID ITIS 150) (CSU)

IT 0110. Installing, Configuring and Administering a Client OS
Units: 3
Formerly known as CIS 141
Advisory: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Setup and support for a desktop operating system using a current desktop operating system in a networked environment. Creation of local and domain-level accounts, creation of shared resources, use of network services, remote access, resource management and monitoring, and security considerations. (CSU)

IT 0115. Server Systems Administration
Units: 3
Formerly known as CIS 142
Prerequisite: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Provides knowledge and skills required to build, maintain, troubleshoot and support Microsoft server OS technologies. Covers environmental issues, disaster recovery, physical/software security procedures, industry terminology and concepts, server roles, specializations, and interaction within the overall computing environment. (C-ID ITIS 155) (CSU)

IT 0120. Introduction to Information Systems Security
Units: 3
Formerly known as CIS 147
Prerequisite: Completion of IT 105 with grade of "C" or better
Advisory: Completion of IT 115 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational Cybersecurity and Risk Management. Preparation for the CompTIA Security+ certification exams. (C-ID ITIS 160) (CSU)

IT 0125. Switching, Routing and Wireless Essentials
Units: 3
Formerly known as CIS 66
Prerequisite: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Focuses on switching technologies and router operations that support small-to-medium business networks and includes Wireless Local Area Networks (WLANs) and security concepts. Students learn key switching and routing concepts. Students will perform basic network configuration and troubleshooting, identify and mitigate Local Area Network (LAN) security threats, and configure and secure a basic WLAN. (CSU)

IT 0130. Cisco CCNA 3 Enterprise Networking, Security and Automation
Units: 3
Prerequisite: Completion of IT 125 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
This is the third of three courses that are aligned to the CCNA Certification Exam. In Enterprise Networking, Security, and Automation, students will take the skills and knowledge that they learned in the previous two courses and apply them to wide area networks (WANs). WANs are large, complex networks that require advanced understanding of network operation and security. This class also introduces students to two important areas of networking: virtualization and automation. By the end of this course, students will be able to configure, troubleshoot, and secure enterprise network devices. Students will be versed in application programming interfaces (APIs) and the configuration management tools that make network automation possible. When students have completed ENSA, they will have gained the practical experience they need to prepare for the CCNA certification exam. (CSU)

IT 0140. Implementing Network Security and Firewalls
Units: 3
Prerequisite: Completion of IT 120 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Firewalls are one of the primary tools used to prevent unauthorized access to corporate networks. Students will learn how to design and configure firewalls to allow access to key services while maintaining an organization's security, as well as how to implement firewall-to-firewall Virtual Private Networks (VPNs). (CSU)

IT 0145. Introduction to Cybersecurity: Ethical Hacking
Units: 3
Formerly known as CIS 152
Prerequisite: Completion of IT 120 with grade of "C" or better
Advisory: Completion of CSCI 50 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Immerses IT Professionals in hands-on intensive environment providing in-depth knowledge and experience with current essential security systems. Provides understanding of perimeter defenses and leads to scanning and attacking networks; no real networks are harmed. Students learn how intruders escalate privileges and the steps to be taken to secure a system. Also covers Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows, and Virtual Creation. Focus includes legal and regulatory requirements, ethical issues, basic methodology and technical tools used for ethical hacking and penetration tests. Students establish a pre-test agreement with the enterprise, discover and exploit vulnerabilities, participate as a member of a pen test team and prepare a penetration test report. (CSU)

IT 0150. Principles of Cybersecurity Analysis
Units: 3
Formerly known as CIS 153
Prerequisite: Completion of IT 120 with grade of "C" or better or CompTIA Security+ certification as determined by the Information Technology Department Chair
Hours: 72 (54 lecture, 18 laboratory)
Learn how to configure and use threat detection tools, perform data analysis, and interpret the results to identify vulnerabilities, threats, and risks to an organization with the end goal of securing and protecting applications and systems within an organization. This course covers skills used by Information Security (IT) security analysts, vulnerability analysts, or threat intelligence analysts with a technical, "hands-on" focus on IT security analytics. Covers exam objectives relating to the CompTIA Cybersecurity Analyst (CSA+) industry certification. (CSU)

IT 0165. Computer Forensics Fundamentals
Units: 3
Also known as ADMJ 88
Advisory: Completion of ADMJ 54 and IT 120 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the methods used to properly conduct a computer forensics investigation, beginning with a discussion of ethics, while mapping the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools. (C-ID ITIS 165) (CSU)

IT 0170. AWS Cloud Foundations
Units: 3
Hours: 72 (54 lecture, 18 laboratory)
Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. This course provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Can be used to prepare for the AWS Cloud Practitioner exam. (CSU)

IT 0171. CompTIA Cloud+ Computing Concepts and Practices
Units: 3
Prerequisite: Completion of IT 105 with grade of "C" or better
Advisory: Completion of IT 110 and IT 115 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces students to cloud management concepts including cloud architecture and design, cloud security, deployment, operations and support, and cloud troubleshooting. This course helps prepare students for the CompTIA Cloud+ CV0-003 exam and for entry into the workforce in the Cloud market. (CSU)

IT 0175. AWS Cloud Architecting
Units: 3
Prerequisite: Completion of IT 105 and IT 170 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Covers the fundamentals of building IT infrastructure on Amazon Web Services (AWS). The course is designed to teach solutions architects how to optimize their use of the AWS Cloud by understanding AWS services and how they fit into cloud-based solutions. Although architectural solutions can differ depending on the industry, type of application, and size of the business, this course emphasizes best practices for the AWS Cloud that apply to all of them. It also recommends various design patterns to help you think through the process of architecting optimal IT solutions on AWS. Throughout the course, students will explore case studies that showcase how some AWS customers have designed their infrastructures and the strategies and services that they have implemented. Finally, this course provides opportunities for students to build a variety of infrastructures through a guided, hands-on approach. (CSU)

IT 0176. Cloud Computing - Amazon Web Services System Operations
Units: 3
Prerequisite: Completion of IT 115 and IT 175 with grades of "C" or better
Advisory: Completion of IT 170 and/or IT 171 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Helps students identify and develop the skills needed for implementing cloud initiatives. Students will gain experience deploying, managing, and operating workloads on the AWS cloud platform. This course helps prepare students for the AWS Certified SysOps Administrator - Associate industry certification exam. (CSU)

Program Student Learning Outcomes (PSLOs)

- Design LAN and WAN logical topologies that support various sized organizations.
- Assess security risks and identify ways to minimize their threat and/or impact.
- Analyze various operating system options and make recommendations based on organization needs.
- Demonstrate digital literacy and work habits required for a successful virtual business.
- Evaluate effectiveness of web-based business tools for successful operation of a virtual business.
- Develop and implement common deliverables for virtual office entrepreneur.
- Diagnose common software and hardware problems.
- Analyze and integrate software solutions for the business environment.
- Demonstrate professional communication and customer services skills.

- Demonstrate computer literacy.
- Analyze scenarios, investigate options, and appropriately apply workplace computer programs.
- Demonstrate file management proficiency.

Italian
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The United States is taking an active role in world affairs, and it is desirable for Americans to have knowledge of foreign languages and cultures. Learning a foreign language will benefit students and prepare them for any career. The acquisition of desired practical communication skills is the primary objective of the World Languages Department at Sierra College. Courses are organized around grammatical themes imbedded in cultural topics, requiring critical thinking, analysis and practical implication. Instruction on the Communicative Method integrates the five key learning objectives of Speaking, Listening, Reading, Writing and Cultural Competence.

TRANSFER MAJOR REQUIREMENTS in Foreign Language are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Foreign Languages are qualified for positions in teaching, business, foreign services, law enforcement, nursing, secretarial and diplomatic services.

Career Opportunities in Italian

Bilingual: teacher, professor, transcriber, sales representative, customer service representative, web publisher, medical/health worker, realtor, IRS/franchise tax board worker, social services case worker, community outreach specialist, human resources specialist;

Business: international relations consultant, international business personnel, foreign exchange trader, publishing specialist, foreign correspondent, foreign publications/textbook editor, research assistant, importer/exporter, translator/interpreter, international account manager, international banking officer, airline personnel, public relations officer;

Culture/Tourism: cultural events coordinator, travel agent, translator/interpreter, guide;

Government: national security agent, immigration officer, court interpreter, UNESCO official, Peace Corps employee, translator/interpreter, FBI agent, foreign diplomat missionary, foreign service officer.

Courses

Understanding course descriptions (p. 311)

ITAL 0001. Elementary Italian - Level I
Units: 4
Hours: 72 lecture
Intensive instruction in understanding, speaking, reading, and writing elementary Italian. Basic grammar, regular and some irregular verbs in the present tense of the indicative mood. Daily practice in speaking and writing. Corresponds to two years of high school study. (CSU, UC)

ITAL 0002. Elementary Italian - Level II
Units: 4
Prerequisite: Completion of ITAL 1 or two years of high school Italian with grade(s) of "C" or better
Hours: 72 lecture
Intensive basic grammar, greater emphasis on speaking and writing. Emphasis on culture and events of the areas where Italian is spoken. (CSU, UC)

ITAL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Improve listening skills in target language and draw reasonable conclusions from observations.
- Improve reading skills in target language while examining important contributions to literature in relevant cultures.
- Improve writing skills in target language while examining new ideas from the relevant cultures.
- Improve speaking skills in target language and develop problem-solving skills by working productively with others.
- Cultivate openness to new ideas and an informed appreciation of relevant cultures.

Japanese
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The United States is taking an active role in world affairs, and it is desirable for Americans to have knowledge of foreign languages and cultures. Learning a foreign language will benefit students and prepare them for any career. The acquisition of desired practical communication skills is the primary objective of the World Languages Department at Sierra College. Courses are organized around grammatical themes imbedded in cultural topics, requiring critical thinking, analysis and practical implication. Instruction on the Communicative Method integrates the five key learning objectives of Speaking, Listening, Reading, Writing and Cultural Competence.

TRANSFER MAJOR REQUIREMENTS in Foreign Language are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Foreign Languages are qualified for positions in teaching, business, foreign services, law enforcement, nursing, secretarial and diplomatic services.

Career Opportunities in Japanese

Bilingual: teacher, professor, transcriber, sales representative, customer service representative, web publisher, medical/health worker, realtor, IRS/franchise tax board worker, social services case worker, community outreach specialist, human resources specialist;

Business: international relations consultant, international business personnel, foreign exchange trader, publishing specialist, foreign correspondent, foreign publications/textbook editor, research assistant, importer/exporter, translator/interpreter, international account manager, international banking officer, airline personnel, public relations officer;

Culture/Tourism: cultural events coordinator, travel agent, translator/interpreter, guide;

Government: national security agent, immigration officer, court interpreter, UNESCO official, Peace Corps employee, translator/interpreter, FBI agent, foreign diplomat missionary, foreign service officer.

Courses

Understanding course descriptions (p. 311)

JPN 0001. Elementary Japanese - Level I
Units: 4
Hours: 72 lecture
Introduction to Japanese language; reading, writing, with emphasis on speaking. Pronunciation, sound system, intonation, basic vocabulary and grammar of spoken Japanese. Grammar emphasis is word order, postpositions, and some conjugation in simple sentences. Introduction to geography, customs and culture of Japan. Students required to learn Hiragana script and Kanji characters. Corresponds to two years of high school study. (CSU, UC)

JPN 0002. Elementary Japanese - Level II
Units: 4
Prerequisite: Completion of JPN 1 or two years of high school Japanese with grade of "C" or better
Hours: 72 lecture
Continuation of JPN 1 with increased emphasis on reading, writing and grammatical forms. Stresses vocabulary, idioms, postpositions, and grammar. Study of more complex subordinate phrases and clauses. Includes Hiragana, as well as, Katakana and simple Kanji ideographs. Further study of geography, customs, and culture of Japan. (CSU, UC)

JPN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Improve listening skills in target language and draw reasonable conclusions from observations.
- Improve reading skills in target language while examining important contributions to literature in relevant cultures.
- Improve writing skills in target language while examining new ideas from the relevant cultures.
- Improve speaking skills in target language and develop problem-solving skills by working productively with others.
- Cultivate openness to new ideas and an informed appreciation of relevant cultures.

Kinesiology
Contact Information

Division
Wellness and Athletics

Dean
Rachel Johnson

Associate Dean
Darci Brownell

Division Office
Ft, Rocklin Campus

Overview

The Kinesiology program offers a wide variety of courses that improve physical fitness, sport skills and dance performance abilities. The courses are designed to provide physiological results and wholesome social interchange. Lower division curricula for majors are dependent upon California university and out-of-state university requirements.

Faculty

Mary V. Conway
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Daniel Diaz Romero
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management/Assistant Football Coach
B.S., University of California, Davis
M.A., Western Governor's University
M.S., University of Central Missouri

Heather Eubanks
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Lutheran University
M.A., Azusa Pacific University

John C. Fusano
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California State University, Sacramento

M.A., Saint Mary's College of California

Jason S. Gantt
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California State University, Sacramento
M.S., California State University, Sacramento

Alanna Jackson
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., University of Nevada, Reno
M.S., California State University, Sacramento

Brandie Murrish
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben S. Noonan
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Robert B. Willson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Kinesiology Advisory Committee

- South Yuba Club, Grass Valley, CA
- Proactive Personal Training, Auburn, CA
- Crunch Fitness, Sacramento, CA
- Fitness by Rocklin, Roseville, CA
- Stay Fit, Granite Bay, CA
- Woodworks Fitness, Auburn, CA
- Villa Sport, Rocklin and Roseville, CA
- Lifted Nutrition, Roseville, CA
- Johnson Ranch, Roseville, CA

Degrees/Certificates

Associate Degree for Transfer

- K (p. 232)inesiology for Transfer (p. 201)

Certificate of Achievement

- F (p.   )itness Trainer (p. 201)

Kinesiology for Transfer
AA-T Degree

Kinesiology involves the study of physical activity and its impact on health, society and quality of life. Students will create a balance between physical fitness, social well-being, health and academic success; distinguish principles of healthy weight management through exercise and nutrition; identify and practice the fundamental concepts of wellness and fitness; demonstrate essential motor skill patterns to fit a variety of activities and identify and practice high safety standards, support environmental needs and provide a positive experience for participants.

The Associate in Arts in Kinesiology for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Kinesiology, Physical Education, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Kinesiology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
KIN 0081	Introduction to Kinesiology	3
BIOL 0005	Human Anatomy	5
BIOL 0006	Human Physiology	5
Select a maximum of one course (minimum 1-unit each) from any three of the following areas:		**3**
Aquatics:		
KIN 0040	Water Exercise for Fitness	
KIN 0041	Fundamentals of Swimming	
KIN 0042	Swimming Conditioning	
Combatives:		
KIN 0018	Peaceful Self Defense	
KIN 0019	Basic Self Defense	
KIN 0020	Multi Self Defense System	
KIN 0023	Tai Chi	
KIN 0024	Self-Defense for Personal Safety	
Dance:		
KIN 0050A	Ballet I	
KIN 0050B	Ballet II	
KIN 0051	Jazz Dance	
KIN 0053	Ballroom Dance	
KIN 0054	Modern Dance	
KIN 0055	Line Dance	
Fitness:		
KIN 0003A	Cardio Fitness - Level I	
KIN 0003B	Cardio Fitness - Level II	
KIN 0004	Cross Training	
KIN 0005A	Weight Training	
KIN 0005B	Strength Training - Circuit and Power Lifting	
KIN 0005C	Weight Training - Advanced	
KIN 0006	Physical Fitness	
KIN 0010	Fitness and Improved Health Boot Camp	
KIN 0007	Aerobic Fitness	
KIN 0009	Cardio Kickboxing	
KIN 0062	Fundamentals of Yoga	
KIN 0069	Mat Pilates	
Individual Sports:		
KIN 0026	Badminton	
KIN 0030	Golf	
KIN 0032	Tennis	
KIN 0036A	Beginning Pickleball	
KIN 0036B	Intermediate Pickleball	
Team Sports:		
KIN 0027	Recreational Basketball	
KIN 0029	Flag Football	
KIN 0031A	Soccer Level I	
KIN 0031B	Soccer Level II	
KIN 0033	Volleyball	
KIN 0034	Beach Volleyball	
Select 6-7 units from the following:		**6-7**
HED 0001	Standard First Aid/Community CPR	
STAT C1000	Introduction to Statistics	
Total Units		**22-23**

Fitness Trainer

(Formerly Nutrition and Fitness Trainer)

Certificate of Achievement

This certificate program provides a comprehensive understanding of Fitness and Personal Training. Students will gain the necessary skills and knowledge for entry-level employment in health clubs and recreation centers. The certificate curriculum prepares students for the American Council on Exercise Personal Trainer Certification Exam, allowing students greater employment opportunities as personal trainers, group fitness instructors and advanced fitness specialists. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HED 0010	Health and Aging	3
KIN 0011	Instructional Methods for Group Fitness	3
KIN 0012	Instructional Methods for Personal Trainers	3
KIN 0080	ACE Personal Trainer Preparation	3
KIN 0083	Physiology of Fitness	3
KIN 0095	Internship in Kinesiology	1
Select 3 units from the following:		**3**
BUS 0241	Innovation Concepts for Starting a Small Business	
NUTF 0014	Sports Nutrition	
Total Units		**19**

Courses

Understanding course descriptions (p. 311)

KIN 0003A. Cardio Fitness - Level I
Units: 0.5-2
Formerly known as PHED 3A
Hours: 36 activity per unit
Designed to educate students in the areas of basic aerobic and cardiovascular fitness using a variety of fitness equipment, as well as evaluate and improve present aerobic fitness level. (CSU, UC-with unit limitation)

KIN 0003B. Cardio Fitness - Level II
Units: 0.5-2
Formerly known as PHED 3B
Hours: 36 activity per unit
Designed to educate students in the areas of aerobic circuit training as well as evaluate and improve present aerobic fitness level. (CSU, UC-with unit limitation)

KIN 0004. Cross Training
Units: 2
Formerly known as PHED 87
Hours: 54 (18 lecture, 36 activity)
Daily physical fitness training utilizing aerobic and anaerobic training methods including: swim workouts, resistance training, stationary exercise equipment and running. (CSU, UC-with unit limitation)

KIN 0005A. Weight Training
Units: 0.5-2
Formerly known as PHED 5A
Hours: 36 activity per unit
Weight training as a lifetime fitness activity; progressive resistance exercises with free weights and weight machines to develop muscular strength and endurance. (CSU, UC-with unit limitation)

KIN 0005B. Strength Training - Circuit and Power Lifting
Units: 0.5-2
Formerly known as PHED 5B
Hours: 36 activity per unit
Strength training exercises in progressive circuit and power lifting with free weights and weight machines. Designed to develop core strength, muscular strength and endurance. (CSU, UC-with unit limitation)

KIN 0005C. Weight Training - Advanced
Units: 0.5-2
Hours: 36 activity per unit
Advanced instruction in weight lifting for physical fitness as well as Olympic weight lifting, power lifting, body building, and lifting for athletic competition. (CSU, UC-with unit limitation)

KIN 0006. Physical Fitness
Units: 0.5-2
Formerly known as PHED 6
Hours: 36 activity per unit
Emphasis on life-long exercise principles using a variety of muscular strength and endurance, aerobics and flexibility workouts. Examines cardio-respiratory fitness, exercise principles, and how to design and evaluate fitness programs/workouts. Students experience different types of workouts and are encouraged to apply the information to their own body and level of conditioning. (CSU, UC-with unit limitation)

KIN 0007. Aerobic Fitness
Units: 0.5-2
Formerly known as PHED 7
Hours: 36 activity per unit
Creative exercises to promote a wide range of flexibility, muscular strength and endurance, and cardiovascular endurance. Includes a choreographed warm-up, aerobic segment, floorwork, and warm-down utilizing a variety of calisthenic and dance techniques and skills. (CSU, UC-with unit limitation)

KIN 0009. Cardio Kickboxing
Units: 0.5-2
Formerly known as PHED 13
Hours: 36 activity per unit
An intense non-contact cardiovascular workout utilizing kicking and punching techniques for differing fitness levels to include: warm-up, cardiovascular segment, muscle conditioning exercises, stretching, and cool down. (CSU, UC-with unit limitation)

KIN 0010. Fitness and Improved Health Boot Camp
Units: 2-3
Formerly known as PHED 22
Hours: 54 (18 lecture, 36 activity) 2 units; 72 (36 lecture, 36 activity) 3 units
This course encourages a healthy attitude toward exercise, wellness, and nutrition. Topics include assessing and improving fitness levels, as well as nutrition, healthy living, and active lifestyle strategies that are involved in attaining and maintaining appropriate levels of wellness. This course includes a variety of fitness activities that provide a new approach to each workout including but not limited to High Intensity Interval Training (HIIT) based cardio, cross training, body weight exercises, and muscle strength and endurance. Periodized workouts are developed to optimize fitness levels in an individual student-centered approach. (CSU, UC-with unit limitation)

KIN 0011. Instructional Methods for Group Fitness
Units: 3
Formerly known as PHED 85
Hours: 72 (36 lecture, 36 activity)
Addresses methods of instruction in leading group exercise in health clubs, resorts, institutions, corporate programs or medically supervised exercise programs. Topics include movement choreography, communication and cueing, music selection and counting. Practical application of kinesiology and muscle physiology are used to design various music based class formats and other current group fitness trends. (CSU)

KIN 0012. Instructional Methods for Personal Trainers
Units: 3
Hours: 72 (36 lecture, 36 activity)
Emphasizes the development of instructional skills based on learning modalities and pedagogical practices for individuals working as a personal trainer in the fitness industry. Activities focused on those used to develop muscular endurance, muscular strength, muscular hypertrophy, and flexibility using various equipment options. Practical application of exercise science principles in anatomy, physiology, kinesiology, and exercise physiology used for exercise instruction and program design. (CSU)

KIN 0018. Peaceful Self Defense
Units: 0.5-2
Formerly known as PHED 69
Hours: 36 activity per unit
Introduction to fundamental principles, concepts, and theories of martial arts. Includes basic self defense, nonviolent self defense strategies, cardio conditioning, strength building exercises, flexibility training, nutrition, deep relaxation, and meditation with a focus on mind-body connection as it pertains to the art of physical combat. Benefits students of all skill levels. (CSU, UC-with unit limitation)

KIN 0019. Basic Self Defense
Units: 1-2
Formerly known as PHED 66
Hours: 36 activity per unit
Basic level course designed to teach students how to recognize and avoid potential threats, and to mentally and physically prepare themselves to respond to physical attacks if they should occur. Covers responses to a variety of attack situations including pushes, grabs, chokes, punches, kicks, rear attacks, ground attacks, and assaults with handguns, long-guns and knives. Special emphasis is placed on takedowns, disarming and controlling attackers. (CSU, UC-with unit limitation)

KIN 0020. Multi Self Defense System
Units: 0.5-2
Formerly known as PHED 80
Hours: 36 activity per unit
A multi combat self defense system combining the martial arts of Escrima (stick and knife fighting), Jujitsu, and Kenpo. Focus on teaching application of principles leading to utilizing ordinary items to help defend oneself. Emphasis on strengthening the body and improving endurance. (CSU, UC-with unit limitation)

KIN 0023. Tai Chi
Units: 0.5-2
Formerly known as PHED 14
Hours: 36 activity per unit
Ancient Chinese martial art that improves balance and coordination, promotes health, and reduces stress. Emphasizes meditation in motion and self-defense. Focus on mind/body harmony through balancing body energy (chi). (CSU, UC-with unit limitation)

KIN 0024. Self-Defense for Personal Safety
Unit: 1.5
Formerly known as PHED 63
Hours: 54 (18 lecture, 36 laboratory)
Provides individuals with information about personal safety and develops skills to avoid harm. Covers awareness in a variety of locations, such as home, workplace, school, online environment, car and parking lot. Topics include avoidance and awareness of potential dangers, appropriate responses, self-defense strategies (physical and non-physical), legal aspects of self-defense, physical fitness, sensitivity to violent crime victims, and the psychological factors involved in victimization. (CSU)

KIN 0026. Badminton
Units: 0.5-2
Formerly known as PHED 11
Hours: 36 activity per unit
Fundamental techniques of badminton skills including: service, drop shots, clear shots, forehand and backhand strokes. Covers strategy of singles and doubles play, rules, and game etiquette. Provides an opportunity for competition. (CSU, UC-with unit limitation)

KIN 0027. Recreational Basketball
Units: 0.5-2
Formerly known as PHED 23
Hours: 36 activity per unit
Introduction to basketball as a recreational/cardio sport, designed to assist students in acquiring basic skills and increasing aerobic fitness, balance, and advanced fitness levels, while actively participating in basketball activities. (CSU, UC-with unit limitation)

KIN 0028. Independent Study
Units: 1-3
Formerly known as PHED 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

KIN 0029. Flag Football
Units: 0.5-2
Formerly known as PHED 29
Hours: 36 activity per unit
Fundamental theory and practice of flag football skills and knowledge including: passing, kicking, receiving, blocking, defending and rushing. Covers the strategy of team play, rules and etiquette. Provides the opportunity for skill development and competition. (CSU, UC-with unit limitation)

KIN 0030. Golf
Units: 0.5-2
Formerly known as PHED 10
Hours: 36 activity per unit
Development of sufficient basic proficiency in golf to recognize and enjoy it as a lifetime activity; includes U.S.G.A. rules, etiquette and the fundamental mechanics involved in the use of irons and woods. (CSU, UC-with unit limitation)

KIN 0031A. Soccer Level I
Units: 0.5-2
Formerly known as PHED 27A
Hours: 36 activity per unit
Fundamental theory and practice, including passing, dribbling, shooting, formations, and strategy. Primary emphasis on the application of skills, rules, and introduction to strategy in game play. (CSU, UC-with unit limitation)

KIN 0031B. Soccer Level II
Units: 0.5-2
Formerly known as PHED 27B
Hours: 36 activity per unit
Tactical theory and practice, including small group attacking, small group defending, team attacking and team defending. Primary emphasis on tactics and strategy within the game. (CSU, UC-with unit limitation)

KIN 0032. Tennis
Units: 0.5-2
Formerly known as PHED 16
Hours: 36 activity per unit
Fundamental techniques of service, forehand, volleys, and backhand. Covers strategy, rules, and etiquette. Provides an opportunity for competition in both singles and doubles play. (CSU, UC-with unit limitation)

KIN 0032B. Advanced Tennis
Units: 0.5-2
Hours: 36 activity per unit
Advanced techniques of service, forehand, and backhand. Also advanced return of serve techniques and strategies. Provides an opportunity for more intense competition in both singles and doubles play. (CSU, UC-with unit limitation)

KIN 0033. Volleyball
Units: 0.5-2
Formerly known as PHED 26
Hours: 36 activity per unit
Fundamental skills, rules, and strategies of volleyball. Primary emphasis on the application of skills and strategy needed to play volleyball. (CSU, UC-with unit limitation)

KIN 0034. Beach Volleyball
Units: 0.5-2
Hours: 36 activity per unit
Provides instruction and practice in fundamental beach volleyball techniques. Individual skills, such as passing, setting, hitting, blocking and serving, as well as team offensive and defensive strategies. (CSU, UC-with unit limitation)

KIN 0035A. Futsal - Level I
Units: 0.5-2
Hours: 36 activity per unit
Introductory course includes game strategy, tactics, and laws of the game. Futsal is a modified form of soccer played indoors on a hard surface with a low bouncing ball. Students develop basic skills in dribbling, passing, heading, shooting and receiving, along with offensive and defensive strategies. (CSU, UC-with unit limitation)

KIN 0035B. Futsal - Level II
Units: 0.5-2
Advisory: Completion of KIN 35A with grade of "C" or better
Hours: 36 activity per unit
Students develop advanced tactical theory and practice, including small group attacking, small group defending, team attacking and team defending. Primary emphasis on tactics and strategy within the game. (CSU, UC-with unit limitation)

KIN 0036A. Beginning Pickleball
Units: 0.5-2
Hours: 36 activity per unit
Introduces the fundamental skills required to be a proficient beginner pickleball player. Students will develop their understanding and proficiency in the game of Pickleball through fundamental techniques, strategies, and game play scenarios. Emphasis will be placed on teaching stroke mechanics, footwork, and court positioning to enhance overall performance. (CSU, UC-with unit limitation)

KIN 0036B. Intermediate Pickleball
Units: 0.5-2
Hours: 36 activity per unit
Builds upon the fundamental skills acquired in the beginner course. Students will further develop their understanding and proficiency in the game of Pickleball through advanced techniques, strategies, and game play scenarios. Emphasis will be placed on refining stroke mechanics, footwork, and court positioning to enhance overall performance. (CSU, UC-with unit limitation)

KIN 0040. Water Exercise for Fitness
Units: 0.5-2
Formerly known as PHED 8
Hours: 36 activity per unit
Designed to improve muscle tone and cardiovascular fitness. Exercises conducted in the water, utilizing the resistance of water against body movement. Strength and conditioning exercises are integrated with aerobic exercises so that students may have the potential for maximum benefit in a short time. Suitable for students with injuries or physical limitations. (CSU, UC-with unit limitation)

KIN 0041. Fundamentals of Swimming
Units: 0.5-2
Formerly known as PHED 36
Hours: 36 activity per unit
Development of physical and mental adjustment to the water. For non-swimmers through advanced. Basic instruction in swimming, use of swimming equipment, water safety skills, water entry and exit, and water exercises and techniques. Instruction and practice in developing aerobic fitness. (CSU, UC-with unit limitation)

KIN 0042. Swimming Conditioning
Units: 0.5-2
Formerly known as PHED 39
Hours: 36 activity per unit
Development of muscular and cardiovascular endurance. Instruction in distance training, interval training, water exercise, sprint training, stroke techniques, equipment usage, and water games associated with swimming. (CSU, UC-with unit limitation)

KIN 0050A. Ballet I
Units: 0.5-2
Formerly known as PHED 56A
Hours: 36 activity per unit
Introduction to fundamentals of classical ballet focusing on the development of technique through proper alignment, flexibility and strength. Elements of history, terminology and appreciation of ballet as an art form are explored. (CSU, UC)

KIN 0050B. Ballet II
Units: 0.5-2
Formerly known as PHED 56B
Advisory: Completion of KIN 50A with grade of "C" or better
Hours: 36 activity per unit
Continuation of classical ballet training, exploring elements of ballet history, musicality, terminology, technique, and performance. Pointe technique and character dance are also presented. (CSU, UC)

KIN 0051. Jazz Dance
Units: 0.5-2
Formerly known as PHED 54
Hours: 36 activity per unit
Fundamentals of jazz dance with emphasis on ballet basics, flexibility, coordination, weight transference, isolation, floor and barre work, including jazz history, composition basics, stylization, and improvisation. (CSU, UC)

KIN 0053. Ballroom Dance
Units: 0.5-2
Formerly known as PHED 51D
Hours: 36 activity per unit
Basic skills in social and ballroom dance steps, including Swing, Salsa, Tango, Waltz, Fox Trot, Cha-Cha, Rumba, Mambo, and Samba. Includes dance etiquette, development of rhythm, and the history of social dances. (CSU, UC)

KIN 0054. Modern Dance
Units: 0.5-2
Formerly known as PHED 53
Hours: 36 activity per unit
Development and improvement in body alignment, flexibility, strength endurance, balance coordination, relaxation coordination and modern dance techniques so that the body can be used as an instrument of creative expression. (CSU, UC)

KIN 0055. Line Dance
Units: 0.5-2
Formerly known as PHED 51C
Hours: 36 activity per unit
Basic skills in line dancing. Traditional, past and current dances are taught. Includes development of rhythm and the history of line dances. (CSU, UC)

KIN 0062. Fundamentals of Yoga
Units: 0.5-2
Formerly known as PHED 55
Hours: 36 activity per unit
Development of basic Yoga postures, breathing practices, stretching, and relaxation techniques as a method to improve flexibility, decrease stress and improve physical and mental well-being. (CSU, UC-with unit limitation)

KIN 0065. Yoga History and Culture
Units: 3
Hours: 54 lecture
Designed as a survey of the history and culture of yoga, both as a historical practice and a physical discipline. Students will learn about yoga's transformation from ancient to contemporary times, Ayurveda nutrition and yoga as a career option. (letter grade only) (CSU)

KIN 0066. Yoga Pedagogy Lecture
Units: 3
Hours: 54 lecture
Designed as an introduction to teaching the physical discipline of Hatha yoga. Students will learn about different types of Hatha yoga, anatomy, injury prevention, cueing, ethics, and development of their own yoga class. (CSU)

KIN 0068. Introduction to Meditation
Units: 0.5-2
Formerly known as PHED 68
Hours: 36 activity per unit
Exploration of the body/mind connection through techniques of visualization, affirmation, concentration and meditation. (CSU, UC-with unit limitation)

KIN 0069. Mat Pilates
Units: 0.5-2
Formerly known as PHED 19
Hours: 36 activity per unit
Designed to improve "core" muscles of the torso, improve posture, suppleness, and elongate the body. Targets legs,back, hips, and abdominal muscle groups. Includes warm up, muscle strengthening exercises, muscle endurance exercises, flexibility training, and cool down. Student must provide Yoga or Pilates "sticky" mat. (CSU, UC-with unit limitation)

KIN 0070. Yoga Pedagogy Lab
Unit: 1
Prerequisite: Concurrent enrollment in or completion of KIN 66 with grade of "C" or better
Hours: 54 laboratory
Designed as an introduction to the physical discipline of Hatha yoga. Students will learn alignment, adjustments, and cueing for yoga postures. Students will also develop and teach their own yoga class. (CSU)

KIN 0071. Adapted Aquatics
Units: 0.5-2
Formerly known as PHED 73
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
For physically and/or developmentally challenged individuals, providing individually prescribed exercises, adaptive and/or modified swimming, and exercises designed to improve ambulation, balance, and cardiorespiratory endurance. (CSU, UC-with unit limitation)

KIN 0072. Adapted Aerobic Fitness
Units: 0.5-2
Formerly known as PHED 74
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
Aerobic fitness training for individuals with developmental and or physical challenges. Emphasis on improving individual levels of aerobic fitness through the use of fitness machines. Class activities adapted and modified to meet individual needs. (CSU, UC-with unit limitation)

KIN 0073. Adapted Individualized Exercises
Units: 0.5-2
Formerly known as PHED 72
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
The purpose of this class is to improve joint flexibility, muscle endurance and muscle strength in students having difficulty with ambulation, balance, and/or motor skills. Individualized Progressive Resistance exercise programs will be developed based on the student's physical and or developmental abilities, physician's recommendation, and student's personal goals. (CSU, UC-with unit limitation)

KIN 0080. ACE Personal Trainer Preparation
Units: 3
Formerly known as PHED 32
Hours: 54 lecture
Synthesis of principles and theories in exercise physiology, kinesiology, nutrition, and basic behavioral sciences. Application of principles to physical fitness testing and exercise program design and implementation. Prepares students for the American Council on Exercise (ACE) personal trainer certification examination. (CSU)

KIN 0081. Introduction to Kinesiology
Units: 3
Formerly known as PHED 81
Hours: 54 lecture
Introduces the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology are discussed along with career opportunities in teaching, coaching, allied health, and fitness professions. (C-ID KIN 100) (CSU, UC-with unit limitation)

KIN 0082. Sports Officiating
Units: 2
Formerly known as PHED 82
Hours: 54 (36 lecture, 18 laboratory)
Officiating team and individual sports. Emphasizes officiating concepts, skills, fundamentals and etiquette of basketball, baseball/softball, volleyball and soccer. Students are required to perform physical activities associated with officiating. (CSU)

KIN 0083. Physiology of Fitness
Units: 3
Formerly known as PHED 83
Hours: 54 lecture
Introductory course in sports physiology with special emphasis on body systems and how each adapts and responds to physical movement. Review of training strategies implemented to increase functionality of organ systems to improve physical fitness and performance. Provides students with exposure to a variety of performance goals and fitness levels including exercise for health, fitness, recreation, and sports competition. (CSU, UC-with unit limitation)

KIN 0084. Care and Prevention of Athletic Injuries
Units: 3
Formerly known as PHED 84
Hours: 54 lecture
Designed for students interested in the prevention, evaluation and care of athletic injuries. Introduction to theoretical concepts and practical skills necessary for the proper and effective management of common athletic injuries and medical conditions. Includes the prevention, recognition, evaluation, management and rehabilitation of injuries, taping techniques, and emergency procedures. (CSU, UC)

KIN 0086. Psychology of Sport
Units: 3
Formerly known as PHED 86
Hours: 54 lecture
Surveys the theory, research, and applications of psychology pertaining to exercise and sports. Presents current topics and issues relevant to sport psychology. Designed for students interested in coaching, athletic training and personal performance. (CSU, UC)

KIN 0087A. Theory of Baseball
Units: 3
Formerly known as PHED 89A
Hours: 54 lecture
Study and analysis of competitive baseball. Emphasis on defense, offense, pitching, base running, and team strategy. Designed for students with baseball experience and/or the desire to coach baseball at any level. (CSU, UC-with unit limitation)

KIN 0087B. Theory of Basketball
Units: 3
Formerly known as PHED 89B
Hours: 54 lecture
Study and analysis of competitive basketball. Emphasis on defense, offense, individual and team skill development, rules and games preparation and strategy. Designed for students with basketball experience and/or the desire to coach basketball at any level. (CSU, UC-with unit limitation)

KIN 0087C. Theory of Football
Units: 3
Formerly known as PHED 89F
Hours: 54 lecture
Study and analysis of competitive football. Emphasis on defense, offense, special teams and strategies. Designed for students with football experience and/or the desire to coach football at any level. (CSU, UC-with unit limitation)

KIN 0087D. Theory of Soccer
Units: 3
Formerly known as PHED 89H
Hours: 54 lecture
Theories of offensive and defensive strategies in competitive soccer. Includes study, analysis, and critique of skills and strategies in preparation for all levels of soccer competition. Designed for students with soccer experience and/or the desire to coach soccer at any level. (CSU, UC-with unit limitation)

KIN 0087E. Theory of Softball
Units: 3
Formerly known as PHED 89C
Hours: 54 lecture
Study and analysis of competitive softball. Emphasis on defense, offense, pitching, baserunning, team strategies, stats recording and scorekeeping. Designed for students with softball experience and/or the desire to coach softball at any level. (CSU, UC-with unit limitation)

KIN 0087F. Theory of Volleyball
Units: 3
Formerly known as PHED 89G
Hours: 54 lecture
Study and analysis of competitive volleyball. Emphasis on defense, offense, individual and team skill development, rules and games preparation and strategy. Designed for students with volleyball experience and/or the desire to coach volleyball at any level. (CSU, UC-with unit limitation)

KIN 0088. Introduction to Coaching Team Sports
Units: 3
Formerly known as PHED 88
Hours: 54 lecture
Designed for students interested in coaching team sports. Emphasizes the components of team concepts and the organizational skills needed to implement and conduct a team sport program. (CSU, UC-with unit limitation)

KIN 0090. Introduction to Training and Conditioning for Sports
Units: 3
Hours: 54 lecture
Introduces students to the concepts of training and conditioning for sports. Topics will include foundational principles of training, stages of athletic development, motor skills training, and designing programs specific to the needs of the sport. (CSU)

KIN 0095. Internship in Kinesiology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

KIN 0096. Sports Activities
Units: 0.5-2
Formerly known as PHED 93
Hours: 36 activity per unit
Intra-class competition in the group activities of basketball, flag football, volleyball, soccer, ultimate sports and softball. (CSU, UC-with unit limitation)

KIN 0100. Coaching the Young Athlete
Units: 3
Hours: 54 lecture
Students will be introduced to the challenges of age and gender specific considerations in training of young athletes. Topics include training guidelines for young athletes, stages of athletic development, long-term training plans, specific strategies of motivation related to age groups, and providing an environment that promotes learning and fun. (CSU)

KIN 0101. Sport First Aid for Coaches
Units: 3
Hours: 54 lecture
Provides new and experienced coaches with the action steps for the care and prevention of athletic injuries and illnesses. Includes performing physical assessments; strategies for reducing athletes' risk of injury or illness; developing a medical emergency plan; returning athletes to play; and educating athletes and coaches on the effects and dangers of performance enhancers. (CSU)

KIN 0802. Adaptive Motor Skill Development
Units: 0
Formerly known as PHED 802
Advisory: Physician's approval recommended for participation
Hours: 54 laboratory
Physical activities to meet the varied needs of substantially disabled students. Activities include team sports, jogging/walking, weight training, Special Olympic training, swimming, and yoga. May be repeated. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Establish a measurable improvement in one or more fitness components.
- Distinguish principles of healthy weight management through exercise and nutrition.
- Identify and practice high safety standards, support environmental needs, and provide a safe positive experience for other participants (students, student athletes, visiting athletes, community, faculty).
- Demonstrate essential motor skills to fit a variety of activities. Describe and perform exercises reflecting increased knowledge and ability over the semester.
- Generate knowledge of physical education and/or the benefits of exercise.

Learning Disabilities

Contact Information

Division
Student Services

Dean
Bobby Gosal

Division Office
L 102, Rocklin Campus

Department Office
LR 401, Rocklin Campus

Course

LRDS 0610. Learning Disabilities Orientation
Units: 0.5
Hours: 9 lecture
Orientation to the Learning Disabilities program and assessment of learning strengths and weaknesses to determine eligibility for learning disability services. Procedures and services offered follow the criteria mandated by the California Community College Chancellor's Office Learning Disabilities Eligibility and Service Model. Students must complete an application for learning disability services and be approved for enrollment by the instructor. Students are asked to provide relevant documentation related to eligibility for services. (pass/no pass grading) (not degree applicable)

Program Student Learning Outcomes (PSLOs)

- Identify and apply effective and efficient learning strategies.
- Identify factors that impede and/or promote their academic progress and formulate strategies to achieve academic success.

Lesbian, Gay, Bisexual and Transgender Studies

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Lesbian, Gay, Bisexual and Transgender Studies is an interdisciplinary program. Courses emphasize the history and culture of Lesbian, Gay, Bisexual and Transgendered persons and especially the way that sexual orientation/gender identity and expression intersect with ethnic and racial, socioeconomic, creedal and political identities.

Faculty

Degrees/Certificates

Lesbian, Gay, Bisexual and Transgender Studies

AA Degree

LGBT Studies is an interdisciplinary and multicultural major that emphasizes the history and culture of Lesbian, Gay, Bisexual and Transgendered persons. The degree acquaints students with the way that sexual orientation/gender identity and expression intersect with ethnic and racial, socioeconomic, creedal and political identities. The major provides preparation for upper division course work in LGBT Studies, Women's Studies and Gender Studies at a four-year university. Students will be prepared for a variety of social service careers and for working in education. Most employers today welcome employees with expertise in diversity, including knowledge and experience with LGBT issues. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ENGL 0016	Introduction to LGBTIQ Literature	3
LGBT 0001	Introduction to LGBT Studies/Queer Theory (also WMST 0002)	3
LGBT 0002	Queer (LGBTIQ) Film History	3

Select 9 units from the following:		9
HIST 0051	World History since 1500	
PSYC 0100	Introduction to Psychology	
SOC 0001	Introduction to Sociology	
WMST 0001	Introduction to Women's Studies	
Select 3 units from the following:		**3**
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
PSYC 0130	Human Sexuality	
SOC 0003	Race, Ethnicity and Inequality	
SOC 0027	Sociology of Gender	
Total Units		**21**

Courses

Understanding course descriptions (p. 311)

LGBT 0001. Introduction to LGBT Studies/Queer Theory
Units: 3
Also known as WMST 2
Hours: 54 lecture
A broad and general exploration of Lesbian, Gay, Bisexual, Transgender, Queer Studies and its relationship to Feminism. Emphasis on Sexual Orientation/Gender Identity and Expression and their intersections with Race/Ethnicity, Class, the LGBT Rights movement in the United States and globally. (C-ID SJS 130) (CSU, UC)

LGBT 0002. Queer (LGBTIQ) Film History
Units: 3
Formerly known as HUM 26
Hours: 72 (36 lecture, 36 activity)
Historical representations of Lesbian, Gay, Bisexual, Transgender and Queer sexualities in mainstream commercial cinema, as well as underground and independent films, from the silent era to the present. Examines theoretical approaches to the study of queer cinema, the way social attitudes shape cultural representation, and the relationship between audience interpretation and filmmakers' intentions. An emphasis on the way that sexual orientation/gender identity intersects with race/ethnicity and socioeconomic background. (CSU, UC)

LGBT 0010. LGBT Narratives
Unit: 1
Hours: 18 lecture
Introduction to LGBT narratives including biographical, literary, scientific, political and visual cultural. Designed for students interested in Spectrum's Oral History Project. (not transferable)

LGBT 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

LGBT 0095. Internship in LGBT Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Define and correctly utilize definitions regarding sexual orientations (lesbian, gay, bisexual, asexual, pansexual, demisexual, etc.), gender identities and expressions.
- Describe and evaluate the LGBT rights movement in the United States, both as one community and as individual components of an LGBT community with divergent interests, i.e., the lesbian trajectory, the gay male trajectory, the bisexual trajectory, the transgender trajectory, the intersex trajectory and the development of a queer trajectory.
- Describe the history of representations of LGBT, etc., persons in literature, film, and other media.

Liberal Arts
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Courses from the following departments are included in the interdisciplinary Arts and Cultures associate degree:

- Anthropology
- Art History
- Communication Studies
- Deaf Studies
- Drama
- English
- French
- Geography
- History
- Human Development and Family
- Humanities
- Italian
- Japanese
- Lesbian, Gay, Bisexual and Transgender Studies
- Music
- Philosophy
- Political Science
- Psychology
- Social Science
- Sociology
- Spanish
- Women and Gender Studies

Degrees/Certificates
Arts and Cultures
AA Degree
This program provides an introduction to critical thinking, multicultural studies and the arts for students interested in strengthening their analytical and communication skills and/or transferring to four-year colleges and universities. This degree builds a knowledge base appropriate for students transferring to arts and humanities programs at four-year institutions or for students building a base for transfer specialization in areas of emphasis that require primarily upper-division coursework, such as Social Work, Multicultural and Gender Studies, or World Arts and Cultures. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
Select 9 units from the Arts:		**9**
ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (also PHOT 0010)	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
ENGL 0016	Introduction to LGBTIQ Literature	
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
ENGL 0027	Literature by Women	
ENGL 0029	Introduction to Drama as Literature	
ENGL 0030A	American Literature - Beginnings through Civil War	

ENGL 0030B	American Literature - Civil War to the Present	
ENGL 0032	Introduction to Poetry	
ENGL 0033	Introduction to Shakespeare (The Drama)	
ENGL 0034	Introduction to the Novel	
ENGL 0035	Introduction to the Short Story	
ENGL 0037	American Film Masterpieces	
ENGL 0038	International Film Masterpieces	
ENGL 0040	The Filmed Novel	
ENGL 0042	The Documentary Film	
ENGL 0044	Children's Literature (also HDEV 0044)	
ENGL 0045	Young Adult Literature	
ENGL 0046A	English Literature	
ENGL 0046B	English Literature	
ENGL 0047A	World Literature	
ENGL 0047B	World Literature	
ENGL 0048	Literature of Science Fiction	
HUM 0001	Introduction to Humanities I	
HUM 0002	Introduction to Humanities II	
MUS 0002	Music Appreciation	
MUS 0011	Introduction and History of Jazz	
MUS 0012A	Survey of Music History and Literature to 1750	
MUS 0012B	Survey of Music History and Literature from 1750 to Present	
MUS 0013	Introduction to Music: History of Rock and Roll	
THEA 0013	Introduction to Theatre	
Select 9 units from Cultural Studies:		**9**
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0007	Native Peoples of California	
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
COMM 0006	Performance of Diverse Literatures	
COMM 0007	Intercultural Communication	
COMM 0010	Communication Theory, Methods, and Practice	
DFST 0003	American Sign Language III	
DFST 0004	American Sign Language IV	
ETHN 0011	Introduction to Ethnic Studies	
ETHN 0020	Introduction to African American Studies	
ETHN 0050	Ethnic Images in Film	
FREN 0003	Intermediate French - Level I	
FREN 0004	Intermediate French - Level II	
GEOG 0002	Cultural Geography	
GEOG 0003	Geography of California	
GEOG 0005	World Regional Geography	
HIST 0017A	History of the United States to 1877	
HIST 0017B	History of the United States since 1865	

HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0023	Chicano/Mexican American History	
HIST 0024	Russian History - 10th Century to Present	
HIST 0027	Women in American History	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
HDEV 0025	Teaching in a Diverse Society	
HUM 0003	Introduction to Asian Humanities	
HUM 0010	World Religions	
JPN 0001	Elementary Japanese - Level I	
JPN 0002	Elementary Japanese - Level II	
LGBT 0001	Introduction to LGBT Studies/Queer Theory (also WMST 0002)	
LGBT 0002	Queer (LGBTIQ) Film History	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
POLS 0007	Politics of the Developing World	
POLS 0009	Politics of the Middle East	
POLS 0027	Women and Politics in a Global Society	
PSYC 0103	Social Psychology	
PSYC 0127	Psychology of Women	
SOC 0003	Race, Ethnicity and Inequality	
SPAN 0003	Intermediate Spanish - Level I	
SPAN 0004	Intermediate Spanish - Level II	
WMST 0001	Introduction to Women's Studies	
Total Units		**18**

Library Science
Contact Information

Division
Library and Learning Resource Center

Dean
Elizabeth Namei

Division Office
LRC 311, Rocklin Campus

Overview

Methods to access information increase almost as rapidly as the amount of information available. Opportunities exist for work in academic, industrial, public and specialized libraries.

Faculty

Kacey Bullock
Assistant Professor, Library Science
B.A., William Jessup University
M.L.I.S., San Jose State University

Haley Little
Assistant Professor, Library Science
M.S., Valdosta State University

Lisa Nowlain
Assistant Professor, Library Science
B.A., Scripps College
M.S., San Jose State University

Christina M. Sixt
Professor, Library Science
B.A., California State University, Sacramento
M.L.I.S., University of California, Los Angeles

Benjamin Wingard
Assistant Professor, Library Science
B.A., Muhlenberg College
M.S., San Jose State University

Courses

Understanding course descriptions (p. 311)

LIBS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

LIBS 0095. Internship in Library Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Demonstrate research competency.
- Analyze and evaluate results of searches.
- Apply national library cataloging standards to the processing of library materials.
- Apply the processes and functions of the areas of a modern library.

Mathematics

Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Department Website (http://math.sierracollege.edu/)

Overview

Mathematics is a dynamic and developing field of study. It is the foundation and language of all scientific endeavor. Mathematics contributes in direct and important ways to business, finance, engineering, health and public policy.

A degree in Mathematics or Statistics provides many challenging and rewarding career opportunities. These include teaching, research in engineering fields, molecular structures, genetics and medicine, robotics, digital imagery, computer-aided design, economic forecasting and environmental design and modeling.

TRANSFER AND MAJOR REQUIREMENTS in Mathematics are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Preparation for Mathematics Courses

- All prerequisite courses must be completed with grades of "C" or better.
- Two years of high school algebra means "Algebra I and Algebra II."

Faculty

Charles Albright
Professor, Mathematics
B.A., California State University, Sacramento
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Jacqueline M. Anderson
Professor, Mathematics
B.A., Westmont College
M.S., University of Nevada, Reno

Daniel J. Balaguy
Professor, Mathematics
B.A., California State University, Sacramento
M.S., University of Montana

Charles T. Buchwald
Professor, Mathematics
A.S., Palomar College
B.S., California State University, San Marcos
M.S., California State University, San Marcos

Vicki L. Day
Professor, Mathematics
B.S., Washington State University
M.A.T., University of California, Davis

Claire Dodson
Professor, Mathematics
B.A., University of California, Santa Cruz

M.A., University of Oregon

Lynn Harrison Benavidez
Professor, Mathematics
B.A., University of California, San Diego
M.S., Washington State University

Jay G. Kesler
Professor, Mathematics
B.A., University of California, San Diego
M.A., California State University, Sacramento

Katherine P. Lucero
Professor, Mathematics
B.S., California Polytechnic State University, San Luis Obispo
M.S., California Polytechnic State University, San Luis Obispo

Michele L. Morgan
Professor, Mathematics
B.S., California Polytechnic State University, San Luis Obispo
M.A., San Francisco State University

Michael Murphy
Professor, Mathematics
B.S., University of Southern Carolina
M.S., Alabama State University

Sudha Parambil
Professor, Mathematics
B.S., University of Calicut
M.S., University of Calicut

Mary Beth E. Pattengale
Professor, Mathematics
B.S., California Polytechnic State University, San Luis Obispo
M.S., California Polytechnic State University, San Luis Obispo

Patricia A. Ritchie-Reese
Professor, Mathematics
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Lyudmila Shved
Professor, Mathematics
B.A., California State University, San Bernardino
M.A., California State University, San Bernardino

James M. Sullivan
Professor, Mathematics
B.S., University of California, Davis
M.S., University of California, Davis

Pitt Turner
Professor, Mathematics
B.A., University of California, Santa Cruz
M.A., University of Hawaii, Manoa

Kiet Vo
Professor, Mathematics
A.A., San Joaquin Delta College
B.A., University of California, Berkeley
M.A., California State University, Sacramento

Michael Waterson
Professor, Mathematics

B.S., University of California, San Diego
M.S., Salem State University

Ian Wu
Professor, Mathematics
B.S., California State University, Chico
M.A., California State University, Sacramento

Degrees/Certificates

Associate Degree for Transfer

- Mathematics for Transfer (p. 212)

Associate Degree

- Mathematics (p. 213)

Mathematics for Transfer

AS-T Degree

The Associate in Science in Mathematics for Transfer (AS-T) degree includes curriculum focusing on the mastery of calculus, linear algebra and differential equations. Students will master these concepts using algebraic and visual models in pure and applied contexts and be able to communicate mathematically.

The Associate in Science in Mathematics for Transfer degree prepares students to transfer into the CSU system to complete a bachelor's degree in Mathematics or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Mathematics for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4

MATH 0033	Differential Equations and Linear Algebra	6
Total Units		**18**

Mathematics
AA or AS Degree

The Mathematics major recognizes a concentration in the field of Mathematics. Successful completion of the curriculum in Mathematics and the associated electives prepare Mathematics students for transfer to four-year colleges or universities. The program in Mathematics outlined below is typical of lower-division requirements for four-year colleges and universities: some requirements vary from college to college. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
MATH 0033	Differential Equations and Linear Algebra	6
Select 3-5 units from the following:		**3-5**
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0027	Visual Basic .NET Programming I	
CSCI 0046	System Programming with C	
MATH 0010	Problem Solving	
MATH 0013	Introduction to Statistics	
MATH 0015	Discrete Mathematics	
MATH 0017	Concepts of Mathematics	
MATH 0018	The Nature of Mathematics	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics	
Total Units		**21-23**

Courses

ATTENTION: Effective Fall 2025, the California Community College system will implement Common Course Numbering (CCN) per state mandate (AB1111). CCN courses will be common across all California Community Colleges. One course in Mathematics has been included in CCN effective Fall 2025: STAT C1000 (formerly MATH 13). See Also: Statistics **(**http://catalog.sierracollege.edu/departments/statistics/#coursestext**)**

Understanding course descriptions (p. 311)

MATH 0010. Problem Solving
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture
Individual and small-group problem solving geared toward real life situations and nontraditional problems. Problem solving strategies include: draw a diagram, eliminate possibilities, make a systematic list, look for a pattern, guess and check, solve an easier related problem, subproblems, use manipulatives, work backward, act it out, unit analysis, use algebra, finite differences, and many others. Divergent thinking and technical communication skills of writing and oral presentation are enhanced. Designed to teach students to think more effectively and vastly increase their problem solving ability. (CSU)

MATH 0011. Data Science for All
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 108 (54 lecture, 54 laboratory)
Designed for students from any major, provides high-level understanding of how data, statistics, and inference are inter-related. Introduces the core concepts of data science, including statistical inference and computational thinking. Teaches critical concepts and skills in computer programming and statistical inference while working with real data, such as economic data, geographic data, and social networks. Prepares students to make more data-driven decisions, gaining experience with machine learning and with the practical application of statistical concepts like hypothesis testing, confidence intervals via bootstrapping, regression, inference for regression, and predictive modeling while considering the social issues surrounding data privacy and data ownership. (C-ID MATH 110) (CSU, UC)

MATH 0012. College Algebra
Units: 4,6
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture (4 units); 108 lecture (6 units)
Study of algebra topics beyond Intermediate Algebra; including functions, graphs, logarithms, systems of equations, analytic geometry, and sequences and series. (CSU-with unit limitation, UC-with unit limitation)

MATH 0012S. Just in Time Support for Math 12 College Algebra
Units: 2
Corequisite: Concurrent enrollment in Math 12
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from College Algebra. Intended for students who are concurrently enrolled in Math 12. Topics include competencies from Intermediate Algebra that are needed to understand the basics of College Algebra. (not degree applicable) (pass/no pass grading)

MATH 0013S. Just in Time Support for Introduction to Statistics
Units: 2
Corequisite: Concurrent enrollment in STAT C1000
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Introduction to Statistics. Intended for students who are concurrently enrolled in STAT C1000. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of descriptive data analysis including an introduction to technologies such as Desmos, Excel, Statcrunch, Minitab, SPSS or graphing calculators. Recommended for students taking STAT C1000 with little or no recent algebra knowledge. (not transferable) (not degree applicable) (pass/no pass grading)

MATH 0015. Discrete Mathematics
Units: 4
Prerequisite: Completion of MATH 30 with grade of "C" or better
Hours: 72 lecture
Study of set theory, relations and functions, logic, combinatorics and probability, algorithms, computability, matrix algebra, graph theory, recurrence relations, number theory including modular arithmetic. Various forms of mathematical proof are developed: proof by induction, proof by contradiction. (CSU, UC)

MATH 0016A. Calculus for Social and Life Sciences
Units: 4
Prerequisite: Completion of MATH 12 with grade of "C" or better or placement by matriculation assessment process
Advisory: Not recommended for students with grade of "C" or better in MATH 30
Hours: 72 lecture
Review of functions, limits, differentiation and integration of algebraic functions, calculus for exponential and logarithmic functions, applications of calculus in social and life sciences. This course is not intended for students majoring in mathematics, engineering, physics, or chemistry. (CSU, UC-with unit limitation)

MATH 0016B. Calculus for Social and Life Sciences
Units: 4
Prerequisite: Completion of MATH 16A or 30 with grade of "C" or better
Advisory: Completion of MATH 27 with grade of "C" or better
Hours: 72 lecture
Differentiation and integration of trigonometric functions, functions of several variables, partial derivatives, double integrals, introduction to differential equations, sequences and series, applications of calculus in the social and life sciences. (CSU, UC-with unit limitation)

MATH 0017. Concepts of Mathematics
Units: 3
Prerequisite: Completion of Intermediate Algebra and Geometry or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Exploration of mathematical patterns and relations, formulation of conjectures based on the explorations, proving (or disproving) the conjectures. Includes different problem solving techniques, number theory, probability, statistics, sequences and series, and geometry. Intended for students interested in elementary education. (CSU, UC-with unit limitation)

MATH 0017S. Concepts of Mathematics Support
Units: 2
Corequisite: Concurrent enrollment in Math 17
Hours: 36 lecture
Concurrent support for competency and concepts from Euclidean Geometry. Intended for students concurrently enrolled in Math 17. (not degree applicable) (pass/no pass grading)

MATH 0018. The Nature of Mathematics
Units: 3
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Introduces students to the art and application of mathematics in the world around them. Topics include mathematical modeling, voting and apportionment, and mathematical reasoning with applications chosen from a variety of disciplines. Not recommended for students entering elementary school teaching or business. (CSU, UC-with unit limitation)

MATH 0019. Mathematical Concepts for Elementary School Teachers
Units: 3
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including the real number system and its subsystems. The emphasis is on comprehension and analysis of mathematical concepts and applications of logical systems. (C-ID MATH 120) (CSU, UC)

MATH 0024. Modern Business Mathematics
Units: 3
Prerequisite: Two years of high school algebra or MATH D or MATH G with grade(s) of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Applications of mathematics in economics and business contexts. Topics include tables and graphs, functions, finance (interest and exponential models), rates of change including applications and optimization, and linear programming. (CSU, UC)

MATH 0024S. Just in Time Support for Math 24 Modern Business Mathematics
Unit: 1.5
Corequisite: Concurrent enrollment in Math 24
Hours: 27 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Modern Business Mathematics. Intended for students who are concurrently enrolled in MATH 24. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 24 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

MATH 0027. Trigonometry
Units: 4
Formerly known as MATH 8
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture
Fundamentals of trigonometry. Topics include review of algebraic functions, definitions of trigonometric and circular functions, graphs, identities and applications. Other material includes solving trigonometric equations, solving triangles using the Laws of Sines and Cosines, parametric equations, vectors, polar coordinates and graphs, and polar representations of complex numbers. (CSU)

MATH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

MATH 0029. Pre-Calculus Mathematics
Units: 4
Prerequisite: Completion of MATH 27 with grade of "C" or appropriate placement
Hours: 72 lecture
Study of polynomials, rational functions, exponential and logarithmic functions, trigonometric functions, systems of linear equations, rectangular and polar coordinates, conic sections, complex number systems, and sequences and series. (CSU, UC-with unit limitation)

MATH 0030. Analytical Geometry and Calculus I
Units: 4
Prerequisite: Completion of MATH 12 and MATH 27, or MATH 29 with grades of "C" or better, or appropriate placement
Hours: 72 lecture
Introduction to differential and integral calculus. Content includes limits, continuity, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic and other transcendental functions; as well as application problems. (C-ID MATH 210) (combined with MATH 31, C-ID MATH 900S) (CSU, UC-with unit limitation)

MATH 0030S. Just in Time Support for Math 30 Calculus I
Units: 2
Corequisite: Concurrent enrollment in Math 30
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from Calculus I. Intended for students who are concurrently enrolled in Math 30. Topics include competencies from College Algebra and Trigonometry that are needed to understand the basics of Calculus. (CSU)

MATH 0031. Analytical Geometry and Calculus II
Units: 4
Prerequisite: Completion of MATH 30 with grade of "C" or better
Hours: 72 lecture
Continuation of MATH 30. Content includes techniques of integration, improper integrals, applications of integration, infinite series, parametric equations and polar coordinates. (C-ID MATH 220) (combined with MATH 30, C-ID MATH 900S) (CSU, UC-with unit limitation)

MATH 0032. Analytical Geometry and Calculus III
Units: 4
Prerequisite: Completion of MATH 31 with grade of "C" or better
Hours: 72 lecture
Continuation of MATH 31. Vectors and analytic geometry in the plane and space; functions of several variables; partial differentiation, multiple integrals, and application problems; vector functions and their derivatives; motion in space; and surface and line integrals, Stokes' and Green's Theorems, and the Divergence Theorem. (C-ID MATH 230) (CSU, UC)

MATH 0033. Differential Equations and Linear Algebra
Units: 6
Prerequisite: Completion of MATH 31 with grade of "C" or better
Advisory: Completion of MATH 32 with grade of "C" or better strongly recommended
Hours: 108 lecture
First and second order ordinary differential equations, linear differential equations, numerical methods and series solutions, Laplace transforms, modeling and stability theory, systems of linear differential equations, matrices, determinants, vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors. (C-ID MATH 910S) (CSU, UC)

MATH 0042. Business Calculus
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Advisory: Completion of MATH 12 strongly recommended, especially for students who have not recently taken Intermediate Algebra
Hours: 72 lecture
Introduction to differential and integral calculus with particular emphasis on applications in the fields of business, economics, and social sciences. Includes: concepts of a function, limits, derivatives, integrals of polynomial, exponential and logarithmic functions, optimization problems, and calculus of functions of more than one variable. Recommended for Business Majors transferring to CSU, Sacramento. Not recommended for students with credit for MATH 30. (C-ID MATH 140) (CSU, UC-with unit limitation)

MATH 0042S. Just in Time Support for Math 42 Business Calculus
Units: 2
Corequisite: Concurrent enrollment in Math 42
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Business Calculus. Intended for students who are concurrently enrolled in MATH 42. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 42 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

MATH 0584. Math Success-Overcoming Math Anxiety
Unit: 1
Hours: 18 lecture
Designed to assist students to recognize common fears and misconceptions of mathematics and develop personal strategies to overcome math and test anxiety. Specific study skills and strategies are discussed. Individual math learning styles are analyzed. (not degree applicable)

MATH 0812S. Just in Time Support for Math 12 College Algebra
Units: 0
Corequisite: Concurrent enrollment in Math 12
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from College Algebra. Intended for students who are concurrently enrolled in Math 12. Topics include competencies from Intermediate Algebra that are needed to understand the basics of College Algebra. (pass/no pass grading) (noncredit)

MATH 0813S. Just in Time Support for Introduction to Statistics
Units: 0
Corequisite: Concurrent enrollment in STAT C1000
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Elementary Statistics. Intended for students who are concurrently enrolled in STAT C1000. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of descriptive data analysis including an introduction to technologies such as Desmos, Excel, Statcrunch, Minitab, SPSS or graphing calculators. Recommended for students taking STAT C1000 with little or no recent algebra knowledge. (pass/no pass grading) (noncredit)

MATH 0824S. Just in Time Support for Math 24 Modern Business Mathematics
Units: 0
Formerly known as MATH 824
Corequisite: Concurrent enrollment in Math 24
Hours: 27 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Modern Business Mathematics. Intended for students who are concurrently enrolled in MATH 24. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 24 with little or no recent algebra knowledge. (noncredit)

MATH 0842S. Just in Time Support for Math 42 Business Calculus
Units: 0
Formerly known as MATH 842
Corequisite: Concurrent enrollment in Math 42
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Business Calculus. Intended for students who are concurrently enrolled in Math 42. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 42 with little or no recent algebra knowledge. (noncredit)

STAT C1000. Introduction to Statistics
Units: 4
Formerly known as MATH 13
Prerequisite: Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of intermediate algebra
Hours: 72 lecture
This course is an introduction to statistical thinking and processes, including methods and concepts for discovery and decision-making using data. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-squared, and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Students apply methods and processes to applications using data from a broad range of disciplines. (C-ID MATH 110) (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Use mathematical techniques to translate, model, and solve applied problems.
- Differentiate between expressions and equations; and, using appropriate mathematical techniques, simplify expressions and solve equations.
- Interpret and construct visual models of mathematical concepts.
- Clearly communicate mathematical information, concepts, and processes to others.
- Develop a growth mindset, math sophistication, and confidence.

Mechatronics
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B 3, Rocklin Campus

Overview

Mechatronics is the study of electronics, mechanics and computer control in one cohesive hands-on, project-based program. The field of Mechatronics includes robotics, industrial automation, industrial process control and electro-mechanical systems. Mechatronics systems include ATMs and copy machines, elevators, medical diagnostic equipment, automated package handling, ski lifts, water processing facilities, industrial robots and large-scale food and beverage manufacturing. There are associate degree and certificate options. More information can be found at the Sierra College Mechatronics Department website: http://www.realskillsrealjobs.com.

Faculty

Robert Fosselman
Assistant Professor, Mechatronics

A.S., Sierra College

Roy Ingram
Professor, Mechatronics
A.S., Sierra College

Tony J. Osladil
Professor, Mechatronics
B.S.E.E., University of Detroit Mercy

Mechatronics Industry Advisory Committee

- Aqua Sierra Controls Inc., Auburn, CA
- Bowe Systec
- Del Oro High School, Loomis, CA
- Electrical Design and Motor Control Inc., Roseville, CA
- Harris & Bruno, Roseville, CA
- Kratos Defense Systems, Folsom, CA
- Patterson Dental, Roseville, CA
- Pride Industries, Sacramento County, CA
- Sacramento County Utilities, Sacramento County, CA
- Sierra Pacific Industries, Lincoln, CA
- Sunsweet Growers Inc., Yuba City, CA
- Tesco Controls, Sacramento, CA
- Tomra Sorting Solutions, West Sacramento, CA
- Vacuum Process Engineering Inc., Sacramento, CA
- Vision Service Plan, Rancho Cordova, CA

Degrees/Certificates

Associate Degree

- Mechatronics Technology (p. 217)

Certificate of Achievement

- Mechatronics Technology (p. 217)

Skills Certificate

- Electro-Mechanical (p. 217)

Mechatronics Technology
AA or AS Degree
Successful completion of the curriculum in Mechatronics Technology prepares students for positions in businesses and industries that manufacture, utilize, or repair equipment incorporating electronics, mechanics, pneumatics, hydraulics and programming. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	3
MECH 0004	Fundamentals of Mechatronics	4
MECH 0010	Fundamentals of Electronics	4
MECH 0014	Fabrication Techniques	2
MECH 0025	Computers for Robotics and Automation	4
MECH 0044	Mechatronic Processes and Materials	2
MECH 0054	Mechatronics Systems	4
MECH 0090	Microcontroller Embedded Systems	4
Total Units		**27**

Mechatronics Technology
Certificate of Achievement
Successful completion of the curriculum in Mechatronics Technology prepares students for positions in businesses and industries that manufacture, utilize, or repair equipment incorporating electronics, mechanics, pneumatics, hydraulics and programming. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	3
MECH 0004	Fundamentals of Mechatronics	4
MECH 0010	Fundamentals of Electronics	4
MECH 0014	Fabrication Techniques	2
MECH 0025	Computers for Robotics and Automation	4
MECH 0044	Mechatronic Processes and Materials	2
MECH 0054	Mechatronics Systems	4
MECH 0090	Microcontroller Embedded Systems	4
Total Units		**27**

Electro-Mechanical
Skills Certificate
Completion of the skills certificate provides students with the underlying principles and hands-on techniques of basic electronics and basic mechanics, thereby preparing them for entry-level electro-mechanical technician positions. Emphasis is on use of electronic test equipment for troubleshooting as well as tools and processes of manufacturing as applied to industrial materials. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
MECH 0001	The Science of Electronics	3
MECH 0010	Fundamentals of Electronics	4
MECH 0044	Mechatronic Processes and Materials	2
Total Units		**9**

Courses

Understanding course descriptions (p. 311)

MECH 0001. The Science of Electronics
Units: 3
Formerly known as CIE 1
Hours: 54 lecture
Survey of electronics technology presented in the context of the principles of science. Application of the scientific method to topics ranging from basic circuits to microprocessors, including electronic music, robotics, electric vehicles, fiber optics, semiconductors, and medical imaging. Scientific, historical, political, and economic connections to electronics technology. (CSU)

MECH 0004. Fundamentals of Mechatronics
Units: 4
Formerly known as CIE 4
Hours: 108 (54 lecture, 54 laboratory)
Introduction to mechatronics, which combines electronics, mechanics, pneumatics, and hydraulics, under computer control; as applied to robotics and automation. Presented through hands-on, project-based experiments that demonstrate industrial applications. (CSU)

MECH 0008. Introduction to Electronics
Units: 3
Formerly known as CIE 8
Hours: 54 lecture
General principles, concepts, terminology, and applications of electronics in the context of mechatronics technology. (CSU)

MECH 0010. Fundamentals of Electronics
Units: 4
Formerly known as CIE 10
Advisory: Concurrent enrollment in MECH 14
Hours: 126 (54 lecture, 72 laboratory)
A fundamental study of electronic devices, circuits, and systems as applied to robotics, computers and industrial automation. Presented through hands-on, project-based experiments. (CSU)

MECH 0014. Fabrication Techniques
Units: 2
Formerly known as CIE 14
Advisory: Concurrent enrollment in MECH 10
Hours: 72 (18 lecture, 54 laboratory)
Introductory course covering the function and construction of electronic projects and equipment. Includes design and fabrication of enclosures, single and double-sided printed circuit boards, safe use of power and hand tools, through-hole, point-to-point and surface-mount soldering, rework techniques, and wiring. Research component vendors and develop a spreadsheet-based Bill Of Materials. (CSU)

MECH 0025. Computers for Robotics and Automation
Units: 4
Formerly known as CIE 25/CIS 25/CST 25
Hours: 108 (54 lecture, 54 laboratory)
Concentrated study of computer hardware and software as applied to industrial automation and robotics. Includes hardware and software installation, configuration, upgrading, diagnostics, troubleshooting, and repair. Topics include communication protocols, basic input/output system (BIOS), power-on self test (POST) procedures, disk operating system (DOS), Windows, Linux, and local area network (LAN) fundamentals. Industrial applications include data acquisition, and robotic control. (CSU)

MECH 0028. Independent Study
Units: 1-3
Formerly known as CIE 28
Hours: 54 laboratory hours per unit
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

MECH 0044. Mechatronic Processes and Materials
Units: 2
Formerly known as CIE 44
Hours: 72 (18 lecture, 54 laboratory)
Application of tools and materials required for design, installation and repair of mechatronic systems. Each student fabricates a final project applying system-based mechatronic principles and skills. (CSU)

MECH 0054. Mechatronics Systems
Units: 4
Formerly known as CIE 54
Prerequisite: Completion of MECH 4 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Full integration of mechatronic principles into complete closed-loop systems such as automated production equipment and industrial robots. Topics include sensors, optical encoders, analog-to-digital and digital-to-analog conversion, closed-loop AC and DC motor control, hydraulic power concepts, hydraulic motors, pneumatic and hydraulic valves and actuators and fluid power computer simulation tools. (CSU)

MECH 0090. Microcontroller Embedded Systems
Units: 4
Formerly known as CIE 90
Prerequisite: Completion of MECH 10 and MECH 14 with grades of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Study of microcontroller based embedded systems using industry standard hardware and development software. Topics and laboratory exercises covering system architecture, applications of embedded systems, real world interfacing, software development, test and troubleshooting techniques. (CSU)

MECH 0095. Internship in Mechatronics
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Analyze pneumatic/hydraulic and VFD/electric-motor control diagrams and construct them with appropriate hardware.
- Analyze, construct and test electrical and electronic circuits from schematic diagrams.
- Fabricate and assemble mechanical assemblies from technical drawings using hand and machine tools.

- Analyze, construct and test automated systems including electronic sensors, mechanical actuators and computer control.
- Demonstrate the ability to create PLCs and microcontroller programs and properly interface them to input and output devices.

Music

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

It is the mission of the Music Department to provide for every level of student and community member an affordable and accessible musical education in an atmosphere that embraces academic excellence, diversity and innovation. Whether students are interested in musical career and technical training, transfer to a four year institution, or lifelong learning, the Music Department will help foster a deeper awareness of the value that music plays in our students and in our community. The Sierra College Music Department encourages students and community members alike to follow their musical passion by developing their musical skills so they can make significant musical contributions to their lives and communities.

TRANSFER MAJOR REQUIREMENTS in Music are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Faculty

Greg M. McLaughlin
Professor, Music
B.M., California State University, Sacramento
M.A., California State University, Sacramento

Kimberly Osteen-Petreshock
Professor, Music
B.M., Arizona State University
M.A., Northern Arizona University
M.A., University of Arizona
D.A., Arizona State University

Lauren Poluha
Assistant Professor, Music
B.M., University of Michigan
M.A., University of California, Los Angeles
Ph.D, University of California, Los Angeles

Media and Public Event Production Advisory Committee

- Nancy Briggs Music, Sonoma, CA
- John Bologni Recording, Mixing & Mastering, Sacramento, CA
- Beat Farm Productions, Sacramento, CA
- Millennia Music & Media Systems, Diamond Springs, CA
- Njokumusic, Sacramento, CA
- Tanglewood Studios, Fair Oaks, CA
- Sacramento DJ Productions, Sacramento, CA
- Film Armory, Carmichael, CA
- Sierra Professional Audio & Video Technologies, Sacramento, CA

Degrees/Certificates

Associate Degree for Transfer

Associate Degree

Music for Transfer
AA-T Degree

The Associate in Arts in Music for Transfer program provides students with an opportunity to pursue their transfer goals through coursework in music theory, ear-training, sight-singing, applied music, and performance.

The Associate in Arts in Music for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a Bachelor of Arts degree in Music, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within a B.A. program in the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Music for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- California General Education Transfer Curriculum (Cal-GETC) (https://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
MUS 0003A	Ear Training I	1
MUS 0003B	Ear Training II	1
MUS 0004A	Advanced Ear Training I	1
MUS 0004B	Advanced Ear Training II	1

MUS 0006A	Music Theory I	3
MUS 0006B	Music Theory II	3
MUS 0009A	Music Theory III	3
MUS 0009B	Music Theory IV	3
MUS 0051	Applied Music (2 semesters, 1 unit each semester) [1]	2
Select 6 units from the following (4 semesters, 1.5 units each semester):		**6**
MUS 0042	Chamber Singers	
MUS 0046	Jazz Ensemble	
MUS 0047	Vocal Jazz Ensemble	
MUS 0048	Concert Choir	
MUS 0049	Jazz Improvisation Performance Ensemble	
MUS 0050	Wind Ensemble	
MUS 0054	Symphonic Band	
Total Units		**24**

[1]

MUS 0051 must be taken for four (4) semesters in order to earn the Music for Transfer AA-T. Students are strongly encouraged to enroll in MUS 0051 with with each required semester of ensemble or voice.

Music
AA or AS Degree

The Music degree includes vocal and instrumental components, as well as courses in music, history and theory. The general program is designed to provide students with a foundation in music theory and history. Performance opportunities in both vocal and instrumental music enhance a student's understanding and skill level. The Music degree prepares students for careers in music performance, education, composition, conducting, retail music industry, music publishing and music therapy. The degree also prepares students for further study at a four-year institution. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
MUS 0003A	Ear Training I	1
MUS 0003B	Ear Training II	1
MUS 0006A	Music Theory I	3
MUS 0006B	Music Theory II	3
MUS 0009A	Music Theory III	3
MUS 0009B	Music Theory IV	3
Select 4 units from the following:		**4**
MUS 0040A	Beginning Piano I	
MUS 0040B	Beginning Piano II	

MUS 0040C	Intermediate Piano I	
MUS 0040D	Intermediate Piano II	
Select 3 units from the following:		**3**
MUS 0042	Chamber Singers	
MUS 0046	Jazz Ensemble	
MUS 0047	Vocal Jazz Ensemble	
MUS 0048	Concert Choir	
MUS 0050	Wind Ensemble	
MUS 0054	Symphonic Band	
Select 6 units from the following:		**6**
MUS 0011	Introduction and History of Jazz	
MUS 0012A	Survey of Music History and Literature to 1750	
MUS 0012B	Survey of Music History and Literature from 1750 to Present	
MUS 0013	Introduction to Music: History of Rock and Roll	
MUS 0024	Introduction to Music Cultures of the World	
Total Units		**27**

Media and Public Event Production
Certificate of Achievement

The Media and Public Event Production Certificate addresses both current and emerging media and public event production technologies, which are presented both as a vehicle for creative endeavor and commercial activity. Opportunities are created for the development of relevant techniques in media content creation, content management, and public event technical support in a vast range of professional settings. Course offerings are both individually configured and strategically interrelated to facilitate the attainment of students' professional goals in a wide breadth of production scenarios. Skillsets developed can prove vital to activity in diverse fields including commercial music, theatre arts, marketing, science, education, journalism, hospitality, entertainment, law enforcement, art, and audio/video/multimedia content creation, management, and presentation. Students of Media Content and Public Event Production become qualified for positions in areas such as audio/video/multimedia media content production, sound reinforcement, multimedia presentation support, systems design and integration, stagecraft, lighting design, production equipment transport, stage management, event promotion, and artist management. Students also develop skillsets necessary for successful long#term professional activity in today's multifaceted and increasingly entrepreneurial scenarios of gainful employment. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
BUS 0242	Entrepreneurship - Small Business Management	3
MUS 0007	Composition with Electronic Media	3
MUS 0015	Audio Recording	3
MUS 0016	Media Content and Public Event Technology	3
MUS 0018	Live Sound	2
MUS 0025	Introduction to Entertainment Industry	3
MUS 0029	Audiovisual Event Production	3

THEA 0014	Stagecraft	3
THEA 0015	Stage Lighting	3
THEA 0022A	Production Crew I	2
Total Units		**28**

Recommended Electives

Code	Title	Units
MECH 0010	Fundamentals of Electronics	
MUS 0010	Music Fundamentals	
MUS 0040A	Beginning Piano I	
THEA 0022B	Production Crew II	

Courses

Understanding course descriptions (p. 311)

MUS 0002. Music Appreciation
Units: 3
Hours: 54 lecture
Foundational course recommended for all students seeking an understanding and enjoyment of music through listening, analysis, and evaluation. Discussion of musical elements, repertoire, genres, and instruments from music traditions across time and space. Study of the many roles of music in human life. Attendance at concerts and listening to a variety of music may be required. (C-ID MUS 100) (CSU, UC)

MUS 0003A. Ear Training I
Unit: 1
Prerequisite: Completion of MUS 10 with grade of "C" or better or equivalent knowledge of music notation
Advisory: Concurrent enrollment in MUS 6A and MUS 40A
Hours: 44 (18 lecture, 26 laboratory)
This course applies and develops materials of MUS 6A used for musical analysis and dictation of rhythms, intervals, chords and melodies plus sight singing of short, simple diatonic melodies. (C-ID MUS 125) (CSU, UC)

MUS 0003B. Ear Training II
Unit: 1
Prerequisite: Completion of MUS 3A with grade of "C" or better
Advisory: Concurrent enrollment in MUS 6B and MUS 40B
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic and harmonic materials of MUS 6B through ear training, sight singing, analysis and dictation. (C-ID MUS 135) (CSU, UC)

MUS 0004A. Advanced Ear Training I
Unit: 1
Prerequisite: Completion of MUS 3B with grade of "C" or better
Advisory: Concurrent enrollment in MUS 9A and MUS 40C
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic and harmonic materials of MUS 9A through ear training, sight singing, analysis and dictation. (C-ID MUS 145) (CSU, UC)

MUS 0004B. Advanced Ear Training II
Unit: 1
Prerequisite: Completion of MUS 4A with grade of "C" or better
Advisory: Concurrent enrollment in MUS 9B and MUS 40D
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic, and harmonic materials of MUS 9B through ear training, sight singing, analysis, and dictation. (C-ID MUS 155) (CSU, UC)

MUS 0006A. Music Theory I
Units: 3
Prerequisite: Completion of MUS 10 with grade of "C" or better or equivalent knowledge of music notation
Advisory: Completion of MUS 40A with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 3A
Hours: 54 lecture
Through guided composition and analysis, incorporates the following concepts: rhythm and meter; intervals; diatonic scales and triads; diatonic chords, basic cadential formulas and phrase structure; dominant seventh chords; figured bass symbols; and embellishing tones. Develops skills in handwritten notation. (C-ID MUS 120) (CSU, UC)

MUS 0006B. Music Theory II
Units: 3
Prerequisite: Completion of MUS 6A with grade of "C" or better or passing score on examination
Advisory: Completion of MUS 40B with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 3B
Hours: 54 lecture
Incorporates the concepts from MUS 6A. In addition, through guided composition and analysis, includes: an introduction to two-part counterpoint; voice leading involving four-part chorale writing; diatonic harmony; and an introduction to secondary/applied chords and modulation. (C-ID MUS 130) (CSU, UC)

MUS 0007. Composition with Electronic Media
Units: 3
Advisory: Completion of MUS 10 and 40A with grades of "C" or better or equivalent keyboard skills and ability to read music notation
Hours: 72 (54 lecture, 18 laboratory)
Introduction to electronic music creation, audio synthesis, sequencing, MIDI technology, and computer−aided music notation. Areas of coverage include signal flow, creation of sound patches and tracks, computer-aided score notation, and hardware/computer-aided sequencing. (CSU)

MUS 0009A. Music Theory III
Units: 3
Prerequisite: Completion of MUS 6B with grade of "C" or better
Advisory: Completion of MUS 40C with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 4A
Hours: 54 lecture
This course incorporates the concepts from MUS 6B. In addition, through writing, listening, and analysis, it includes the study of applied chords, modulation, 18th century counterpoint, modal mixture, and an introduction to chromatic harmony. (C-ID MUS 140) (CSU, UC)

MUS 0009B. Music Theory IV
Units: 3
Prerequisite: Completion of MUS 9A with grade of "C" or better
Advisory: Completion of MUS 40D with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 4B
Hours: 54 lecture
This course incorporates the concepts from MUS 9A. In addition, through writing and analysis, it includes the study of Sonata, sonatina, and rondo forms in the Classical and Romantic eras, followed by the study of 20th century compositional techniques such as modality, nontonality, impressionism, tone rows, set theory, and modern approaches to meter and rhythm. (C-ID MUS 150) (CSU, UC)

MUS 0010. Music Fundamentals
Units: 3
Hours: 54 lecture
An elementary course designed to provide the basic musical skills, knowledge, and competencies necessary for reading or listening to music. Covers elements of music, scales, notation, rhythm, and sight reading. No prior musical training necessary. Note: Not open to students who are taking or have successfully completed MUS 3A-3B or MUS 6A-6B. (CSU, UC-with unit limitation)

MUS 0011. Introduction and History of Jazz
Units: 3
Hours: 54 lecture
Introduction to the history of jazz from traditional European, African and Latin origins to various contemporary and fusion styles. Contributions of great jazz artists studied. Focus placed on developing critical skills applicable to listening to jazz arrangements and improvisation. (CSU, UC)

MUS 0012A. Survey of Music History and Literature to 1750
Units: 3
Advisory: Completion of MUS 10 with grade of "C" or better
Hours: 54 lecture
Study of the history of Western art music from antiquity through the early Baroque Era including the influences of the Catholic Church, stylistic developments, contributions of various personalities, and analysis of music within its historical and social contexts. (CSU, UC)

MUS 0012B. Survey of Music History and Literature from 1750 to Present
Units: 3
Advisory: Completion of MUS 10 with grade of "C" or better
Hours: 54 lecture
Study of the history of European American art music from the 18th century Enlightenment through the present. Students use selected musical recordings and readings to study classical music traditions, from Europe and elsewhere, within their historical and cultural contexts. (CSU, UC)

MUS 0013. Introduction to Music: History of Rock and Roll
Units: 3
Hours: 54 lecture
History of Rock and Roll music in social, political, cultural, and economic context. Includes guided listening, lecture, and video presentations to show the evolution of Rock from its roots to current stylistic trends. (CSU, UC)

MUS 0014. Introduction to Commercial Music Production
Units: 3
Advisory: Completion of MECH 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Emphasis on audio concepts including basic and essential audio theory, development of critical listening skills, and perception of audio in the form of acoustic and electrical energy. Discussion and exercises in signal flow, recording facility configuration, sound reinforcement system set-up and working within different acoustic environments. Introductory training in equipment selection and placement as well as basic tracking techniques are offered. (CSU)

MUS 0015. Audio Recording
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in MUS 14
Hours: 72 (54 lecture, 18 laboratory)
Studio media content production techniques with targeted training on capture of individual instrumental and vocal sources. Coverage of analogue and digital multi-track recording techniques. Overview of basic and essential audio concepts. Opportunity for practical implementation of signal processing techniques and use of related technology such as digital signal processing. Small group multi-track projects will be required. (CSU)

MUS 0016. Media Content and Public Event Technology
Units: 3
Advisory: Completion of MUS 10 and MUS 40A with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Orientation to areas of professional activity in the fields of media content creation and public event technical support. Introduction to public and private-sector entities and areas of independent, entrepreneurial professional practice. Training in concepts including basic and essential audio theory, development of critical listening skills, and perception of audio in the form of acoustic and electrical energy. Discussion and exercises in signal flow, media production facility configuration, sound reinforcement system set-up and working within different acoustic environments. Introductory training in production equipment selection and configuration. (CSU)

MUS 0018. Live Sound
Units: 2
Advisory: Completion with grade of "C" or better or concurrent enrollment in MUS 16
Hours: 72 (18 lecture, 54 laboratory)
Training provided in a variety of public event technical support scenarios where sound reinforcement is required, including live musical performance, theatrical production, AV/multimedia, and corporate event support. Students will receive introductory training in sound system components and configuration, venue and event evaluation, production techniques and logistics, and production-related business practices. Students will engage in hands-on training in PA system setup, operation, troubleshooting, teardown, transport, and maintenance procedures. (CSU)

MUS 0024. Introduction to Music Cultures of the World
Units: 3
Hours: 54 lecture
Introduction to folk, art, devotional, and popular music from around the world. The emphasis of the course is listening to music and understanding music within its cultural contexts. Select music traditions from Africa, Asia, the Caribbean, Latin and North America, Europe, India, and the Middle East will be studied. Using ethnomusicological perspectives, concepts of ethnicity, race, class, and gender will be analyzed in relation to music cultures. Attendance at a live concert is required. (CSU, UC)

MUS 0025. Introduction to Entertainment Industry
Units: 3
Hours: 54 lecture
Exploration of non-performance career options in multiple areas of the media content management and public event technical support industries. Areas of emphasis include professional practices in the music and theatrical production fields including marketing, publishing, copyrighting, licensing, and contracts. Students will be introduced to strategies for working with unions, guilds, artists, producers, managers, and performance venue personnel. (CSU)

MUS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

MUS 0029. Audiovisual Event Production
Units: 3
Advisory: Completion of MUS 16 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Training in audiovisual technical support for public events. Students will receive introductory training in multimedia presentation, meeting/conference support system components and configuration, venue and event needs evaluation, production logistics, in-house system design and integration, and audiovisual related business practices. Students will engage in hands-on training in system design, setup, transport, installation, operation, maintenance, troubleshooting, and repair procedures. (CSU)

MUS 0039A. Beginning Voice
Units: 2
Formerly known as MUS 39
Hours: 54 (18 lecture, 36 activity)
Introductory study of efficient vocal production and performance. Beginning exercises for breath management, extending the vocal range, increasing vocal resonance and volume, and singing in an expressive manner introduced. Vocal exercises and solos are performed to demonstrate these skills. (CSU, UC)

MUS 0039B. Intermediate Voice
Units: 2
Prerequisite: Completion of MUS 39A with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes vowel purity, belt singing, and managing stage fright. Vocal exercises and songs from various music styles are performed, including selections made by students. (CSU, UC)

MUS 0039C. Advanced Voice I
Units: 2
Prerequisite: Completion of MUS 39B with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes breath management in relation to posture, expressive singing via physical movement, unifying the register and range extension, resonance and vocal registers, expressive singing, stage presence, and the International Phonetic Alphabet (IPA) to sing Italian songs. Vocal exercises and songs from various music styles are performed including selections made by students. (CSU, UC)

MUS 0039D. Advanced Voice II
Units: 2
Prerequisite: Completion of MUS 39C with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes breath management using an efficient onset and release, managing the performance, resonance balancing using consonants, and song analysis to prepare a vocal piece for performance. (CSU, UC)

MUS 0040A. Beginning Piano I
Units: 2
Hours: 54 (36 lecture, 18 laboratory)
Beginning instruction in the fundamentals of playing piano. Note reading and basic playing techniques are introduced. Designed to develop musicianship and facility. (CSU, UC)

MUS 0040B. Beginning Piano II
Units: 2
Prerequisite: Completion of MUS 40A with grade of "C" or better or equivalent piano skill with permission of instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40A using more advanced materials. Developing skills in harmonizing a melody, playing scales, sight-reading, chord inversions and repertoire. (CSU, UC)

MUS 0040C. Intermediate Piano I
Units: 2
Prerequisite: Completion of MUS 40B with grade of "C" or better or equivalent with permission of the instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40B, with music drawn from intermediate levels. Ensemble playing, sight-reading and harmonization skills and knowledge. Individual needs and interests considered. (CSU, UC)

MUS 0040D. Intermediate Piano II
Units: 2
Prerequisite: Completion of MUS 40C with grade of "C" or better or equivalent with permission of instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40C, with music drawn from intermediate, late intermediate to early advanced levels. Ensemble playing, sight-reading, harmonization and improvisation developed. Individual needs and interests considered. (CSU, UC)

MUS 0042. Chamber Singers
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include sight singing, preparation of a short musical excerpt, and an aural skills assessment
Hours: 54 (18 lecture, 36 laboratory)
Explores the literature and performance practices of vocal ensembles from the Renaissance to the present. Public performances, festivals, and field trips required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0046. Jazz Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class and require demonstrated ability to play at least one instrument commonly used in jazz ensemble
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Rehearsal and performance of literature written for instrumental jazz ensemble, with emphasis on current musical trends. Study of improvisation. Public performances required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0047. Vocal Jazz Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include sight singing, improvisation and preparation of a short musical excerpt, and an aural skills assessment
Advisory: Previous choral experience
Hours: 54 (18 lecture, 36 laboratory)
Study and performance of modern and vocal jazz styles, tone production, and rhythms. Public performances and field trips required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0048. Concert Choir
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include ability to match pitch and produce a good tone
Hours: 54 (18 lecture, 36 laboratory)
A variety of choral experience performing repertoire, both sacred and secular, from the medieval, baroque, classical, romantic and modern periods of music history. Focuses on performance practice, musical style and poetic interpretation. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0049. Jazz Improvisation Performance Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class and require demonstrated ability to play a melodic instrument and read music in the treble or bass clef
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Fundamentals of jazz improvisation, including chord-scale application. Analysis of diverse styles of the great jazz artists through recordings and transcriptions. Development of a unique improvisational style as applied to performance. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0050. Wind Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include demonstrated ability to play an instrument found in a wind or chamber ensemble
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Training in the interpretation and performance of standard band literature, with emphasis on sight reading new band music. Advanced students given the opportunity for solo work. At least one public performance given each semester. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0051. Applied Music
Unit: 1
Formerly known as MUS 51A
Prerequisite: Enrollment Limitation: audition before music faculty of level appropriate repertoire demonstrating technical and interpretive skills and ability to read music; limited to declared music majors only
Advisory: Three to four years experience on an instrument or voice prior to enrollment. Concurrent enrollment in an appropriate ensemble: MUS 42, 46, 47, 48, 50, or 54
Hours: 40 (7 lecture, 33 laboratory)
Individualized study of departmentally approved fine art performance curriculum. Emphasis on the progressive development of skills needed for solo performance. Student evaluated through a juried performance and a departmental recital. May be taken four times for credit. (C-ID MUS 160) (CSU, UC-with limitation)

MUS 0054. Symphonic Band
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include demonstrated ability to play a symphonic band instrument
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Training in the interpretation and performance of standard band literature, with emphasis on sight reading new band music. Advanced students given the opportunity for solo work. At least one public performance each semester. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0057A. Beginning Guitar
Unit: 1.5
Hours: 36 (18 lecture, 18 activity)
Learning fundamentals of the guitar: components of instrument, reading music notations, key structure and chord structure (open position), and finger picking. Students required to supply own instruments. (CSU, UC)

MUS 0057B. Beginning Guitar
Unit: 1.5
Prerequisite: Completion of MUS 57A with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Further study of guitar fundamentals, including advanced finger picking and strumming techniques; two and three part note reading; and expanded notation and rhythmic development. Students required to supply own instruments. (CSU, UC)

MUS 0058A. Intermediate Guitar
Unit: 1.5
Prerequisite: Completion of MUS 57B with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Learning chromatics, chord structure in closed positions, harmony as applied to pieces, and major and minor scales. These techniques applied to compositions in group performance. Students required to supply own instruments. (CSU, UC)

MUS 0058B. Intermediate Guitar
Unit: 1.5
Prerequisite: Completion of MUS 58A with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Further study of chord melody construction. Learning moveable chords and application to song types, including 9th, 11th, and 13th chords. Students required to supply own instruments. (CSU, UC)

MUS 0095. Internship in Music
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

MUS 0810. Selected Topics in Music
Units: 0
Hours: 8 to 54 lecture as scheduled
Course designed for older adults. Study of selected styles and periods of music. Includes discussion of musical elements, composition, orchestration, vocabulary and history for the selected topics. May be repeated. (noncredit)

Program Student Learning Outcomes (PSLOs)

• Demonstrate proficiency in music theory, music analysis, sight singing, and dictation.
• Recognize and explain the elements of music (rhythm, melody, harmony, and form).
• Utilize knowledge of music theory and music history to analyze and interpret musical works from various historical periods, cultures, and geographical areas.
• Demonstrate professionalism, musicianship, and collaborative skills in performance settings.

Natural Science
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

Courses from the following departments are included in the interdisciplinary Natural Science associate degree:

- Agriculture
- Anthropology
- Astronomy
- Biological Sciences
- Chemistry
- Earth Science
- Environmental Studies and Sustainability
- Geography
- Mathematics
- Physics
- Psychology

Degrees/Certificates
Natural Science
AA or AS Degree
The Natural Science degree is designed for students who are pursuing transfer majors in the Natural Sciences, including Astronomy, Biological Science, Chemistry, Geography, Geology, Physics and related disciplines. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
Select 18 units from the following:		**18**
AGRI 0198	Food, Society and the Environment	
AGRI 0221	Introduction to Soil Science	
ANTH 0001	Biological Anthropology	
ANTH 0001L	Biological Anthropology Laboratory	
ANTH 0010	Introduction to Forensic Anthropology	
ASTR 0002	Introduction to Planetary Systems	
ASTR 0005	Introduction to Stars, Galaxies, and the Universe	
ASTR 0007	Life in the Universe	
ASTR 0010	Elementary Astronomy	
ASTR 0011	Observational Astronomy	
ASTR 0014	Astrophotography and Imaging	
ASTR 0025	Frontiers in Astronomy	
BIOL 0001	General Biology	

BIOL 0002	Botany
BIOL 0003	General Zoology
BIOL 0004	Microbiology
BIOL 0005	Human Anatomy
BIOL 0006	Human Physiology
BIOL 0010	Introduction to Biology
BIOL 0011	Concepts of Biology
BIOL 0014	Natural History, Ecology and Conservation (also ESS 0014)
BIOL 0015	Marine Biology
BIOL 0021	Introduction to Plant Science (also AGRI 0156)
BIOL 0024	Wildland Trees and Shrubs (Dendrology)
BIOL 0033	Introduction to Zoology
BIOL 0055	General Human Anatomy and Physiology
BIOL 0056	Biology: A Human Perspective
BIOL 0056L	Biology: A Human Perspective Laboratory
BIOL 0140	Organismal Biology
CHEM 0001A	General Chemistry I
CHEM 0001B	General Chemistry II
CHEM 0002A	Introduction to Chemistry I
CHEM 0002B	Introduction to Chemistry II
CHEM 0003A	General Chemistry I - Part 1
CHEM 0003B	General Chemistry I - Part 2
CHEM 0005	Chemistry - Quantitative Analysis
CHEM 0012A	Organic Chemistry I
CHEM 0012B	Organic Chemistry II
ESCI 0001	Physical Geology
ESCI 0001L	Physical Geology Laboratory
ESCI 0002	California Geology
ESCI 0003	Historical Geology
ESCI 0003L	Historical Geology Laboratory
ESCI 0010	Introduction to Earth Science
ESCI 0010L	Introduction to Earth Science Laboratory
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESS 0001	Introduction to Environmental Sciences and Sustainability
ESS 0001L	Introduction to Environmental Science Laboratory
ESS 0007	Energy, Environment, and Climate (Also ESCI 0007)
ESS 0008	California Water
ESS 0010	Conservation of Natural Resources
GEOG 0001	Physical Geography
GEOG 0001L	Physical Geography Laboratory
GEOG 0004	Weather and Climate
MATH 0012	College Algebra
MATH 0016A	Calculus for Social and Life Sciences

MATH 0016B	Calculus for Social and Life Sciences
MATH 0027	Trigonometry
MATH 0029	Pre-Calculus Mathematics
MATH 0030	Analytical Geometry and Calculus I
MATH 0031	Analytical Geometry and Calculus II
MATH 0032	Analytical Geometry and Calculus III
MATH 0033	Differential Equations and Linear Algebra
MATH 0042	Business Calculus
PHYS 0010	Basic Concepts in Physics
PHYS 0010L	Basic Concepts in Physics Laboratory
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics
PSYC 0140	Introduction to Biopsychology
PSYC 0140L	Biopsychology Laboratory
STAT C1000	Introduction to Statistics

Total Units   **18**

Nursing Assistant
Contact Information

Division
Allied Health

Dean
Nancy James

Division Office
V 211, Rocklin Campus

Department Office
RN1 100, Rocklin Campus

Department Phone
(916) 660-8300

Overview

The Nursing Assistant course is designed to prepare students for employment providing direct patient care in long term care facilities. There are no degree patterns or transfer majors in this area. Students desiring eligibility for certification testing must earn a grade of "C" or better on each test and complete the CDPH required training hours for the program (60 hours theory/100 hours clinical).

Acceptance into the Precertification Nursing Assistant Training course is through an application process. The application packet consists of a completed application signed by the student and submission of transcripts or assessment results verifying completion of the course prerequisite.

A physical examination and TB clearance are required (at the student's expense) prior to the first day of class. These must be current and within 3 months of the class start date. The student must be clear of any health conditions that could create a hazard to the student, fellow employees, or patients.

Drug testing and background screening are required. Students must complete livescan fingerprinting prior to the first day of class. Criminal background clearance is required to become a CNA.

Students must obtain an approved uniform and required patient care equipment, obtain a Basic Life Support certificate from the American Heart Association designated for Healthcare Providers and be responsible for transportation to and from clinical facilities.

Upon successful completion of the 160 CDPH program, the student is eligible to take the state certification exam (student is responsible for testing fees) to become a CNA.

Precertification of Nursing Assistant

Skills Certificate

The Precertification Nursing Assistant course is designed to prepare students for employment providing direct patient care in long term care facilities. There are no degree patterns or transfer majors in this area. Students desiring eligibility for certification testing must earn a grade of "C" or better on each test and complete the CDPH required training hours for the program (60 hours theory/100 hours clinical).

Acceptance into the Precertification Nursing Assistant Training course is through an application process. The application packet consists of a completed application signed by the student and submission of transcripts or assessment results verifying completion of the course prerequisite.

A physical examination and TB clearance are required (at the student's expense) prior to the first day of class. These must be current and within 3 months of the class start date. The student must be clear of any health conditions that could create a hazard to the student, fellow employees, or patients.

Drug testing and background screening are required. Students must complete livescan fingerprinting prior to the first day of class. Criminal background clearance is required to become a CNA.

Students must obtain an approved uniform and required patient care equipment, obtain a Basic Life Support certificate from the American Heart Association designated for Healthcare Providers and be responsible for transportation to and from clinical facilities.

Upon successful completion of the 160 CDPH program, the student is eligible to take the state certification exam (student is responsible for testing fees) to become a CNA.

Required Courses:

Code	Title	Units
NRSA 0003	Precertification Nursing Assistant Training	6.5
Total Units		**6.5**

Course

Understanding course descriptions (p. 311)

NRSA 0003. Precertification Nursing Assistant Training
Units: 6.5
Hours: 202 (85 lecture, 117 laboratory)
Introduction to nursing practice based on the humanistic philosophy of Abraham Maslow. Includes basic skills necessary to assist in satisfying the patient's physical, psychological, social, and cultural needs. Students must be fingerprinted and submit documentation related to received conviction; certification may be denied. Students must meet regulatory requirements for class attendance, health clearance, background check clearance, and valid social security number to participate in the course. Upon successful completion, students are eligible to take the State of California Certification Examination to become a Nursing Assistant qualified for employment in an acute or long-term health care facility. Testing and certification fees are required. (letter grade only) (not transferable)

Program Student Learning Outcomes (PSLOs)

- Describe the fundamental concepts of the Omnibus Budget Reconciliation Act (OBRA) and California Title 22 regulations for safe and quality care in long term care settings.
- Successfully complete the State Competency Test for Nursing Assistants (American Red Cross).

Nursing, Registered
Contact Information

Division
Allied Health

Dean
Nancy James

Division Office
V 211, Rocklin Campus

Department Office
RN1 100, Rocklin Campus

Department Phone
(916) 660-8300

Overview

Students completing the Registered Nursing Program earn an AS or AA degree in Registered Nursing. In order to receive complete and accurate information concerning the nursing programs, students are urged to first read the information on the Sierra College website carefully and then seek further information or clarification from the nursing department or counseling staff as necessary.

Baccalaureate and graduate nursing programs in four-year colleges and universities differ widely in transfer and credit-granting policies,

requirements and course offerings. Students planning on transferring to obtain a baccalaureate degree in nursing should review appropriate college catalogs.

Faculty

Brad Carrico
Assistant Professor, Nursing

Katie Davis
Coordinator, Nursing Simulation Lab
A.S., Portalnd Community College

Donald Holmes-Talbot
Assistant Professor, Nursing
A.A,. Tarrant County College
A.S,. Tarrant County College
B.S., Tarleton State University
M.S., Walden University

Nicole Mushrush
Assistant Professor, Nursing
A.D.N, Sierra College
B.S.N, Western Governor's University
M.S.N, Western Governor's University

Michele Reisinger
Professor, Nursing
B.S.N., Holy Names University
M.S.N, California State University, Dominguez Hills

Anita Roe
Assistant Professor, Nursing
B.S.N, Mount Saint Mary's University
M.S.N., Western Governors Univeristy

Alison Valdez
Assistant Professor, Nursing

Dawn Veltre
Professor, Nursing
B.S.N., California State University, Stanislaus
M.S.N., California State University, Sacramento

Nursing Advisory Committee

- Adventist Health, Roseville, CA
- American River College, Sacramento, CA
- California State University Sacramento, Sacramento, CA
- California Board of Registered Nursing, Sacramento, CA
- Crystal Ridge Care Center, Grass Valley, CA
- Dignity Health, Greater Sacramento Region
- Eskaton Care Center, Greater Sacramento Region
- Health Impact, Sacramento, CA
- Heritage Oaks Hospital, Sacramento, CA
- Kaiser Permanente, Greater Sacramento Region
- Oakridge Care Center, Roseville, CA
- Placer County Department of Health, Placer County, CA
- Sacramento City College, Sacramento, CA
- Shriner's Hospital, Sacramento, CA
- Sutter Health, Sacramento, CA (HQ)
- The Gathering Inn, Auburn and Roseville, CA
- UC Davis Medical Center, Sacramento, CA
- Veteran's Hospital, Sacramento County, CA
- Western Sierra Medical Center, Auburn, CA
- Yuba College, Marysville, CA

Degrees/Certificates

Associate Degree

- Registered Nursing (p. 229)

Associate Degree Nursing Program

Completion of the Associate Degree Nursing Program qualifies the student to take the National Council of State Boards of Nursing Licensure Examination (NCLEX-RN). Upon passing the Exam, registered nurses are eligible to work in a variety of settings within the health care system as entry level staff nurses. The curriculum, approved by the California State Board of Registered Nursing, consists of both nursing and related general education courses, plus additional general education degree requirements. The nursing courses include theory classes and supervised concurrent clinical practice in local health care agencies. Clinical practice may occur days, evenings, nights and weekends and is assigned by nursing faculty.

At the expense of the student, a physical exam and proof of freedom of communicable disease and/or immunizations for the protection of the student and patients are required upon admission and prior to the first day of class. Students must also purchase an approved uniform and instructional materials required to achieve program objectives, maintain Basic Life Support training certification from the American Heart Association designated for Healthcare Providers and be responsible for transportation to and from clinical facilities. Drug testing and background screening are required. Readiness/assessment testing may be required. Completion of the most current version of the Test of Essential Academic Skills (TEAS) with a cumulative score of 62% or higher is required.

In order to receive complete and accurate information concerning the nursing programs, students are urged to first read the information on the Sierra College website carefully and then seek further information or clarification from the nursing department or counseling staff as necessary.

Registered Nursing Admission Requirements

Application packets are evaluated for completeness and applicant admission eligibility. Application packets that are incomplete are not considered for admission. A complete application packet consists of the following:

- completed application signed by the applicant;
- official transcripts for all colleges (including Sierra College) referenced in the application, including those documenting fulfillment of prerequisite courses;
- official high school transcripts if using high school mathematics courses to meet the mathematics prerequisite;
- official course descriptions for all prerequisite courses taken outside of Sierra College (official course descriptions must match the year and semester the course was completed as documented on the transcript);
- TEAS results with a score of 62% or higher;
- for veterans, a copy of DD Form 214 Certificate of Release or Discharge from Active Duty;
- current and active e-mail address.

The qualifying score using the Chancellor's Predictor of Success formula is 84% or higher. The nursing department complies with all academic regulations and requirements.

Program Prerequisites

The following courses must be completed with grades of "C" or better prior to entry into the Registered Nursing program:

Code	Title	Units
BIOL 0004	Microbiology [1]	5
BIOL 0005	Human Anatomy [1]	5
BIOL 0006	Human Physiology [1]	5
ENGL C1000	Academic Reading and Writing	4
HDEV 0001	Human Development Through the Lifespan	3
or PSYC 0104	Developmental Psychology	
NUTF 0010	Principles of Nutrition [1]	3
PSYC C1000	Introduction to Psychology	3
Demonstrated mathematics proficiency by one of the following:		
MATH 0012	College Algebra	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0024	Modern Business Mathematics	
MATH 0029	Pre-Calculus Mathematics	
MATH 0030	Analytical Geometry and Calculus I	
MATH 0031	Analytical Geometry and Calculus II	
MATH 0042	Business Calculus	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0015	Introduction to Statistics in Sociology	
STAT C1000	Introduction to Statistics	
Completion of one year (or block schedule) of Algebra I or higher level mathematics in high school with grades of "C" or better		

[1]

Courses in microbiology, anatomy, physiology, and nutrition must be completed within seven years of application to the Registered Nursing program.

Program Corequisites

These courses must be completed with grades of "C" or better before the student enters the last semester of the nursing program.

Code	Title	Units
COMM C1000	Introduction to Public Speaking	3
SOC 0001	Introduction to Sociology	3
or ANTH 0002	Cultural Anthropology	

All selected applicants are given provisional acceptance pending successful completion of a clear background check and drug screen, and completion of a health assessment by a physician or nurse practitioner stating that the applicant is clear to perform the requisite duties without restriction.

Advanced Placement Policy for Associate Degree Nursing Program

Licensed vocational nurses and others with previous nursing education and/or experience may receive credit and/or seek advanced placement in the program (see below). In order to be a graduate of the program and receive an associate degree in Registered Nursing, all program and associate degree requirements must be met.

Admission of any student eligible for advanced placement in the program following an academic evaluation is on a space available basis. Students re-entering the program receive priority.

Students may obtain further information regarding program placement policies from the Sierra College website.

30-Unit Licensed Vocational Nursing Option

The 30-unit Licensed Vocational Nursing (LVN) option is offered on a space available basis for LVNs currently licensed in California. Requirements include completion (or challenge) of acceptable college level courses in physiology and microbiology with grades of "C" or better prior to enrollment in the program and completion (or challenge) of NRSR 0023 and NRSR 0024 in sequence. Those who complete this option do not graduate or receive a degree.

Upward Mobility LVN to RN Option

Licensed Vocational Nurses (LVNs) wishing to obtain licensure as a Registered Nurse through the upward mobility option must meet the following criteria to be considered for admission:

- successful completion of an accredited LVN program;
- active, unrestricted California LVN license;
- meet the program prerequisite and admission requirements as well as the above mentioned LVN program clinical experience.

Upon admission, the student must complete NRSR 0023, NRSR 0024, and the remaining required program and general education courses. LVNs interested in pursuing an Associate Degree Nursing and taking National Council Licensure Examination (NCLEX) to be a Registered Nurse may be admitted to the Upward Mobility program on a space available basis. Readiness/Assessment testing is required.

Upward Mobility Admission Requirements

See the Registered Nursing Admission Requirements (p. 228).

Registered Nursing

AS Degree

Students must fulfill the nursing program requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Students already holding an associate degree in another major do not need to complete the general education requirements listed immediately above, unless they wish to obtain an AA or AS degree in Registered Nursing.

Students who have baccalaureate or higher degrees are only required to fulfill the nursing program requirements and registered nursing courses, to be awarded an associate degree.

Required Courses

Code	Title	Units
BIOL 0004	Microbiology	5
BIOL 0005	Human Anatomy	5
BIOL 0006	Human Physiology	5
COMM 0001	Introduction to Public Speaking	3
ENGL 0001A	Academic Reading and Writing	4
HDEV 0001	Human Development Through the Lifespan	3
or PSYC 0104	Developmental Psychology	
NUTF 0010	Principles of Nutrition	3
PSYC 0100	Introduction to Psychology	3
SOC 0001	Introduction to Sociology	3
or ANTH 0002	Cultural Anthropology	
Select one of the following:		**0-6**
MATH 0012	College Algebra	
MATH 0013	Introduction to Statistics	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0024	Modern Business Mathematics	
MATH 0029	Pre-Calculus Mathematics	
MATH 0030	Analytical Geometry and Calculus I	
MATH 0031	Analytical Geometry and Calculus II	
MATH 0042	Business Calculus	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0015	Introduction to Statistics in Sociology	
Registered Nursing Courses [1]		
NRSR 0021	Nursing Fundamentals and Geriatric Nursing	11
NRSR 0022	Medical Surgical I and Pediatric Nursing	11
NRSR 0023	Medical Surgical II and Mental Health Nursing	11
NRSR 0024	Advanced Medical Surgical and Maternal-Newborn Nursing	11
NRSR 0031	Dosage Calculations for Medication Administration for Nursing	1
NRSR 0032	IV Therapy Techniques and Medication Administration in Nursing	1
NRSR 0033	Pharmacology for Nursing	1
NRSR 0034	Pathways to Professionalism in Nursing	1
Total Units		**82-88**

[1]

Students must be admitted to the Associate Degree Nursing Program before enrolling in the registered nursing courses. The registered nursing courses must be completed (or challenged) in sequence.

Students who complete the nursing program requirements and registered nursing courses without completing all of the associate degree requirements may take the Licensure Examination as NON-GRADUATES, but these students are not graduates of the program and do not receive degrees.

Board of Registered Nursing Licensure Requirements

Upon applying to the California Board of Registered Nursing for examination and licensure, students must be fingerprinted and submit documentation related to any received conviction; licensure may be denied.

In accordance with Regulation 480 of the State Board of Registered Nursing, a person convicted of any offense, other than a minor traffic violation, may not qualify to be licensed as a registered nurse. Questions regarding this regulation may be addressed to the California State Board of Registered Nursing.

Courses

Understanding course descriptions (p. 311)

NRSR 0017. High-Risk Pediatric Nursing
Units: 0.5
Prerequisite: Enrolled as LVN to RN Upward Mobility student
Hours: 9 lecture
Provides the LVN Upward Mobility student with the content/concepts for the management of nursing care for the child with complex nursing needs, such as a high-risk medical condition and chronic or end-of-life care. The content rounds out the basic pediatric nursing content the student received in the vocational nursing program and meets BRN curriculum requirements. (CSU)

NRSR 0021. Nursing Fundamentals and Geriatric Nursing
Units: 11
Prerequisite: Completion of BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12, and ENGL C1000 with grades of "C" or better
Hours: 396 (99 lecture, 297 laboratory)
Introduction to nursing with overview of its evolution, present trends and issues, legal and ethical aspects and the major concepts underlying today's practice. Theory and correlated clinical practice related to utilizing the nursing process based on Roy's Adaptation Model to provide direct care to stable adult and geriatric clients. Emphasis on basic human needs and promoting adaptive mechanisms for attaining and maintaining wellness. Students gain the knowledge and skills necessary to perform all basic nursing procedures. (letter grade only) (CSU)

NRSR 0022. Medical Surgical I and Pediatric Nursing
Units: 11
Prerequisite: Completion or equivalent of NRSR 21 with grade of "C" or better as determined by Dean/Department Chair or current LVN licensure and completion of BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12 and ENGL C1000 with grades of "C" or better
Hours: 387 (104 lecture, 283 laboratory)
Theory and correlated clinical practice related to utilizing the nursing process based on Roy's Adaptation Model to promote adaptation by adult and pediatric clients and their families experiencing common and/or remedial illnesses/stressors. Students further develop skills and apply theory introduced in NRSR 21 in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0023. Medical Surgical II and Mental Health Nursing
Units: 11
Prerequisite: Completion of NRSR 22 with grade of "C" or better or current LVN licensure and BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12 , and ENGL C1000 with grades of "C" or better; Completion of or concurrent enrollment in COMM C1000 and SOC 1 or ANTH 2 with grades of "C" or better
Hours: 387 (104 lecture, 283 laboratory)
Theory and clinical practice related to application of the nursing process based on Roy's Adaptation Model. Students provide care for the adult client having a variety of complex medical-surgical health problems and learn to apply the nursing process for clients experiencing common mental health issues. Focus is on the role of the registered nurse in therapeutic communication, health teaching, leadership, management, and team work. Students further develop skills and apply theory introduced in NRSR 22 in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0024. Advanced Medical Surgical and Maternal-Newborn Nursing
Units: 11
Prerequisite: Completion of NRSR 23 with grade of "C" or better
Hours: 396 (99 lecture, 297 laboratory)
Theory and correlated clinical practice related to the application of the nursing process based on Roy's Adaptation Model for multiple adult and geriatric clients with complex health problems experiencing acute illness. Students learn to promote adaptation for the maternal-newborn clients experiencing illness/stressors. Students further develop skills and apply theory introduced in previous semesters in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0025. High Risk Obstetrical/Newborn Nursing
Units: 0.5
Prerequisite: Enrolled as an LVN to RN upward mobility student
Hours: 16 (7 lecture, 9 laboratory)
Provides the LVN upward mobility student with the content/concepts for the management of nursing care for the obstetrical and newborn patient with complex nursing needs, such as a high-risk intrapartum, complicated birth, and post delivery care of maternal/newborn patients. Content builds upon the basic obstetrical nursing content the student received in the vocational nursing program and meets BRN curriculum requirements. (CSU)

NRSR 0031. Dosage Calculations for Medication Administration for Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 21
Hours: 18 lecture
Focuses on preparing nursing students with the fundamental skills necessary for accurate dosage calculations in the context of medication administration. Through comprehensive instruction, students will gain proficiency in calculating dosages, ensuring precision and safety in the vital skill of medication delivery within a nursing context. This course emphasizes practical application, enabling students to develop the necessary competence in dosage calculations to excel in nursing practice. (pass/no pass grading) (CSU)

NRSR 0032. IV Therapy Techniques and Medication Administration in Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 22
Hours: 18 lecture
Designed to equip healthcare professionals with the essential knowledge and practical skills required for safe and effective intravenous (IV) therapy. The course focuses on foundational concepts, principles, and techniques essential for nurses who administer IV therapy in diverse healthcare settings. This course combines theoretical knowledge with practical application, ensuring that participants are well-prepared to deliver safe and competent IV therapy. (pass/no pass grading) (CSU)

NRSR 0033. Pharmacology for Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 23
Hours: 18 lecture
Designed to provide nursing students with a comprehensive understanding of pharmacology as it relates to nursing practice. Students will explore the principles of pharmacodynamics and pharmacokinetics, emphasizing the actions, uses, and adverse effects of commonly used medications across diverse patient populations. (pass/no pass grading) (CSU)

NRSR 0034. Pathways to Professionalism in Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 24
Hours: 18 lecture
Designed to equip Associate Degree in Nursing (ADN) students with the essential skills, knowledge, and attitudes necessary for a successful transition into the professional nursing workforce. With emphasis on the significance of professional identity in nursing, this course focuses on cultivating foundational principles and behaviors that result in the individual thinking, acting, and feeling like a nurse. (pass/no pass grading) (CSU)

Program Student Learning Outcomes (PSLOs)

- Apply the nursing process based on Roy's Adaptation Model to support and promote health when caring for clients in all states of the life continuum within a variety of healthcare settings.
- Communicate effectively with clients, families, and within the heath care team using therapeutic and interpersonal strategies and learned skills.
- Teach health maintenance and promotion to clients and their families, and to members of the community.
- Interact collaboratively as a member of the health care team and assume leadership responsibilities in coordinating care for groups of clients in structured health care systems.
- Demonstrate the principles of client advocacy: accept responsibility for nursing practice and function and accountability within the legal scope of registered nursing practice.
- Assume responsibility and accountability for professional growth and implement evidence-based practice model into nursing practice.

Nutrition and Food Science
Contact Information

Division
Wellness and Athletics

Dean
Rachel Johnson

Associate Dean
Darci Brownell

Division Office
V 211, Rocklin Campus

Overview

The Nutrition and Food Science curriculum is designed to provide students with knowledge of nutrition principles and skills in food preparation techniques. The curriculum provides education for transfer to upper division institutions for careers in foods, food preparation or food service, dietetics and dietary health care and promotes optimum health to maximize one's physical, social and economic potential.

Faculty

Sonia Klenner
Professor, Nutrition and Food Science
B.S., California State University, Sacramento
M.S., San Diego State University

Mithia Mukutmoni
Professor, Nutrition and Food Science
B.S., University of California, Irvine
Ph.D., University of California, Davis

Nutrition, Food Science, and Fitness Advisory Committee

- Randy Cowen, Area Director of Fitness, Crunch Fitness, Sacramento
- Amy Summy, Fitness Director, Villa Sports, Roseville

Degrees/Certificates
Nutrition and Dietetics for Transfer
AS-T Degree

This program provides students with a strong foundation in nutrition, dietetics, and food science. Upon completion of this degree, students will be able to evaluate personal energy and nutrient requirements and food sources using current dietary assessment tools; demonstrate the understanding of the physiological processing of nutrients as they relate to energy balance, metabolism and physical activity; evaluate the impact of external variables on food safety, food choices, food beliefs, and disease risk; and identify dietary and lifestyle modifications for improving health throughout the life cycle.

The Associate in Science in Nutrition and Dietetics for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in nutrition, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Nutrition and Dietetics for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
BIOL 0004	Microbiology	5
BIOL 0006	Human Physiology	5
CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	5
NUTF 0005	Food Preparation for Nutrition and Life Fitness	3
NUTF 0010	Principles of Nutrition	3
PSYC 0100	Introduction to Psychology	3
Total Units		**29-30**

Courses

Understanding course descriptions (p. 311)

NUTF 0005. Food Preparation for Nutrition and Life Fitness
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Focuses on the application of food science principles. Emphasis on ingredient function and interaction, food preparation techniques, sensory evaluation, food safety and sanitation, and nutrient composition of foods. Modification of recipes to optimize nutrient content. (C-ID NUTR 120) (CSU)

NUTF 0010. Principles of Nutrition
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Scientific concepts of nutrition related to the function of nutrients in basic life processes and current health issues with emphasis on individual needs. The specific nutrient needs throughout the lifespan will also be examined. (C-ID NUTR 110) (CSU, UC)

NUTF 0013. Nutrition Throughout the Life Cycle
Units: 3
Also known as HDEV 61
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Examination of nutritional requirements, concerns, and interventions during several stages of the life cycle, from preconception to old age. Analysis of cultural, environmental, physical, and economic factors affecting nutritional status. Practical application of adequate nutrition through dietary selection and promotion of health throughout each life cycle stage. (CSU)

NUTF 0014. Sports Nutrition
Units: 3
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Presents fundamental nutrition concepts and applies them to individuals interested in physical activity, exercise, and sport. Nutrition topics include short-term and long-term nutrient intake, hydration status, supplement use, and body composition as they relate to physical performance. Basic fitness information regarding the key components of fitness, energy systems, and energy balance will also be explored. (CSU)

NUTF 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

NUTF 0095. Internship in Nutrition and Food Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Evaluate personal energy and nutrient requirements and food sources using current dietary assessment tools.
- Demonstrate the understanding the physiological processing of nutrients as they relate to energy balance, metabolism and physical activity.
- Evaluate the impact of external variables on food safety, food choices, food beliefs, and disease risk.
- Identify dietary and lifestyle modifications for improving health throughout the life cycle.

Personal Development
Contact Information

Division
Student Services

Dean
Tabitha Conaway

Division Office
L 102, Rocklin Campus

Overview

The department of Personal Development is the instructional component of the College's counseling services. Courses provide a broad foundation in academic, career and personal success strategies to help students achieve their goals and participate as productive members of our society. Opportunities for practical application serve to build knowledge and skills in key areas such as planning and goal setting, decision-making, cultural competency, personal responsibility, self-awareness, critical thinking, emotional intelligence and communication. The objective of Personal Development is to promote student success by strengthening essential academic, career and life skills.

Faculty

Mark Kwoka
Professor, Disabled Student Programs and Services Counseling
B.S., Oregon State University
M.S., California State University, Sacramento

Karin McGuire
Professor, CalWORKs Counseling
A.A., American River College
B.S., California State University, Sacramento
M.A., Chapman University

Catherine J. Morris
Professor, Counseling
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Christopher Old
Professor, Counseling
B.A., College of William and Mary
M.A., University of Virginia

Brook Oliver
Professor, Counseling
B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Hayward

Blake E. Rood
Professor, Counseling
A.A., Monterey Peninsula College
B.A., University of Washington
M.S., California State University, Sacramento

Tonya N. Times
Professor, Counseling
B.A., California State University, Sacramento
M.S., California State University, Sacramento

Courses

Understanding course descriptions (p. 311)

PDEV 0001. College and Life Success
Units: 3
Hours: 54 lecture
Strategies for creating success in college, life and career. Apply psychological, social, and physiological principles of development, learning, motivation and wellness to support success. Explore personality, interests, and values to increase self-understanding and support informed educational, career and life decisions. Strengthen academic study strategies such as note taking, memorizing and test taking skills. Apply life management techniques to accomplish goals. Develop a plan for wellness and living a long and healthy life. Practice creative and critical thinking techniques, problem-solving, and decision-making. (CSU, UC-with unit limitation)

PDEV 0006. Career Planning
Units: 3
Hours: 54 lecture
A study of Career Counseling and its relationship to career planning. In particular, students will learn to examine their individual psychological, social, and environmental factors impacting their career choices. The course includes individual assessments of personality, interests, values, and skills to help identify appropriate careers and college majors. Students will examine the historical view of careers, current career trends, employment outlook, occupational research, research on educational requirements, goal setting, decision-making, and job search strategies including networking, resume writing, interviewing and portfolio development. (CSU, UC)

PDEV 0008. Introduction to College
Units: 0.5-2
Hours: 9 lecture per .5 unit
Introduction to higher education, college terms, student resources, student success practices, steps to choosing a career direction, related interest area, program and/or major, the college catalog, degree/certificate requirements, and an overview of the transfer process to four-year colleges/universities. Students formulate an educational plan to increase success in reaching educational goals. (CSU, UC-with unit limitation)

PDEV 0009. Assertiveness Training
Unit: 1
Hours: 18 lecture
Step by step strategies for becoming more assertive, rather than passive or aggressive. Learn verbal and nonverbal skills for communicating with people more authentically, effectively and fairly. Examines cultural and social differences in assertive communication. (CSU)

PDEV 0012. Peer Mentor Training
Units: 3
Hours: 54 lecture
Experiential introduction to the method and process of being a skilled helper in academic peer support programs. Emphasis on communication skills, relationship development, knowledge of higher education, college policies and resources with the goal of promoting the academic and psychosocial factors that contribute to college and life success. (CSU)

PDEV 0021. Career Exploration through Self Assessment
Units: 0.5-1
Hours: 9 lecture per .5 unit
Introduction to the career decision making process using career assessment and educational planning tools. Includes self assessment of personality, values, interests and skills; analysis and exploration of course of study and career options; development of a career action plan; and creation of a student educational plan. (CSU)

PDEV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

PDEV 0052. Student Leadership Development
Units: 2
Hours: 36 lecture
Introductory course in leadership development, which explores student government, student clubs and organizations, and aspects of group dynamics. Students gain knowledge in applying practical leadership skills to out-of-class projects; such as planning and running effective meetings, parliamentary procedure, group leadership, and motivation techniques. (CSU)

PDEV 0070. Stress and Well Being
Units: 3
Hours: 54 lecture
Emphasis on analyzing theories, research methods, and empirical evidence regarding the relationship between stress and well-being. Overview of psychological theories of stress, including types, causes and effects. Explores solutions to mitigate its negative impacts. Explores the relationship between psychological and socio-cultural theories and factors in creating stress and affecting ones ability to manage it. Introduces research in coping techniques including meditation, cognitive strategies and the practice of wellness. (CSU, UC)

PDEV 0075. Study of Happiness and Well-Being
Units: 3
Hours: 54 lecture
An overview of happiness and well-being through current theory and research in positive psychology. This course explores the relationships between positive psychology, psychological theories, and the application of strategies to enhance happiness and well-being. Topics include personal strengths, gratitude, meaning and social connection. Emphasis on analyzing theories, cultural perspectives, research methods, and empirical evidence, all with a direct application to everyday life, including finding meaning in relationships, career, and life. (CSU)

PDEV 0094. Career Exploration Internship
Units: 0.5-4
Exposure to business/industry under the direction of a worksite supervisor, related to student's educational or occupational goals. Develops career awareness, experience and knowledge with a focus on job skills that enhance academic learning. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

PDEV 0095. Internship in Personal Development/Human Services
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

PDEV 0800. Career Essentials - Looking Inside
Units: 0
Hours: 10 lecture
Introduction to the career decision-making process using career assessment tools to formulate a career profile. Includes self assessment of personality, values, interests, skills and learning style. (pass/no pass grading) (noncredit)

PDEV 0801. Career Essentials - Exploring the World of Work
Units: 0
Prerequisite: Completion of PDEV 800 with grade of "Pass"
Hours: 8 lecture
Introduction to the world of work including industry sectors, career clusters and pathways. Overview of current and projected trends in expanding career areas, educational/training requirements, salary and outlook. Research career options using a variety of resources. Develop understanding of decision-making process and apply to career choices. (pass/no pass grading) (noncredit)

PDEV 0802. Career Essentials - Getting Hired
Units: 0
Hours: 10 lecture
Overview and explanation of the job search process, including the role of social media, personal branding and evolving employer expectations. Understanding and application of current job search techniques including finding and researching positions and companies, networking, resume writing, interviewing, and evaluating and negotiating job offers. (pass/no pass grading) (noncredit)

Program Student Learning Outcomes (PSLOs)

- Demonstrate ability to access college and/or community resources to achieve goals.
- Apply critical thinking and problem-solving strategies to make academic, career and/or personal decisions.
- Demonstrate appreciation and understanding of the importance and influence of social and cultural diversity in academic, career, and/or life planning.
- Enhance self-awareness through self-assessment, applying theories of learning, communication, psychology and/or career development that are relevant to college and life success.
- Formulate academic, career and/or personal goals and create an action plan to achieve them.

Philosophy
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Philosophy concerns the study of fundamental questions that arise in different areas of human experience, thought, or practice. Philosophy is the basis of a sound humanistic or liberal arts education. The Philosophy program aims to make this natural activity of thought both richer and more systematic. Courses are offered which provide opportunities for self development and the building of a coherent outlook and critical reason. In addition, the lower division prerequisites for a four-year philosophy major are offered.

TRANSFER MAJOR REQUIREMENTS in Philosophy are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Faculty
Vernon J. Martin
Professor, Philosophy
B.A., University of California, Santa Cruz
M.A., University of North Texas

Degrees/Certificates

Associate Degree for Transfer

- Philosophy for Transfer (p. 235)

Associate Degree

- Philosophy (p. 236)

Philosophy for Transfer
AA-T Degree

Philosophy is a broadly based discipline that examines the fundamental questions that arise in disparate areas of human experience. Courses are both historically and topically organized and emphasize the analysis of primary sources, the importance of critical thinking, the relationship between conclusions, justifications and logic. By developing reasoning skills, students will strengthen clarity of language usage, fortify argumentation skills and master the language and topics of the discipline of philosophy.

The Associate in Arts in Philosophy for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Philosophy or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Philosophy for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
PHIL 0002	Introduction to Philosophy: Ethics	3
or PHIL 0006	Introduction to Philosophy: Knowledge and Reality	
PHIL 0012	Introduction to Symbolic Logic	3
Select 9 units from the following or unused course from the preceding area:		**9**
PHIL 0004	Introduction to Critical Thinking	
PHIL 0010	Philosophy of Religion	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0020	History of Ancient Greek Philosophy	
PHIL 0021	History of Modern Philosophy	
PHIL 0065	Introduction to the Philosophy of Science	
Select 3 units from the following or unused course from the preceding area:		**3**
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0060	Introduction to Environmental Ethics	
HUM 0017	Introduction to Atheism	
Total Units		**18**

Philosophy
AA Degree

The Philosophy Department serves a diverse student population in preparation for upper division coursework in Philosophy at a four-year university as well as through offering general education courses for non-philosophy majors. The AA degree in Philosophy will prepare students for upper-division work in Philosophy by acquainting them with the relevant terminology and conceptual positions with regards to the major subdivisions of the discipline: Metaphysics, Epistemology, Axiology and Logic. Courses are offered which provide opportunities for self-development and the building of a coherent outlook and critical reason. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
PHIL 0012	Introduction to Symbolic Logic	3
PHIL 0020	History of Ancient Greek Philosophy	3
PHIL 0021	History of Modern Philosophy	3
Select 12 units from the following:		**12**
PHIL 0002	Introduction to Philosophy: Ethics	
PHIL 0004	Introduction to Critical Thinking	
PHIL 0006	Introduction to Philosophy: Knowledge and Reality	
PHIL 0010	Philosophy of Religion	
PHIL 0013	Introduction to Asian Philosophy	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0060	Introduction to Environmental Ethics	
PHIL 0065	Introduction to the Philosophy of Science	
Total Units		**21**

Courses

Understanding course descriptions (p. 311)

PHIL 0002. Introduction to Philosophy: Ethics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The concept of morality and values, Western systems of ethics including Virtue Ethics, Utilitarianisms, Kantian ethics, Feminist Moral Theory and their application to contemporary moral dilemmas. (C-ID PHIL 120) (CSU, UC)

PHIL 0004. Introduction to Critical Thinking
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
A study of the principles of inductive and deductive inference and their practical applications in everyday situations such as analyzing, criticizing, and advocating ideas, evaluation of arguments, and problem solving. Examines the use of language, formal and informal fallacies, syllogistic argument forms and the scientific method. Develops the ability to integrate principles of critical thinking with the techniques of effective written argument. (C-ID PHIL 110) (CSU, UC)

PHIL 0006. Introduction to Philosophy: Knowledge and Reality
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the method and primary problems of philosophy including argumentation, conceptual analysis, analysis and evaluation of fundamental assumptions and principles of various philosophical systems and philosophical interpretation of primary texts on topics from epistemology and metaphysics. (C-ID PHIL 100) (CSU, UC)

PHIL 0010. Philosophy of Religion
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the major philosophical issues raised by, but not limited to traditional Western religion. Includes an examination of the arguments for God's existence and nature, immortality, the problem of evil, miracles, rationality of religious belief, the relation of faith to reason, and theories on the meaning of the religious language. (CSU, UC)

PHIL 0012. Introduction to Symbolic Logic
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the principles of deductive reasoning including formal techniques of sentential and predicate logic. (C-ID PHIL 210) (CSU, UC)

PHIL 0013. Introduction to Asian Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major philosophies of Asia including Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Focuses on issues such as immortality, the nature of reality, god, the self, society, transcendence and morality. Also looks at the influences of Eastern Philosophy on Western Culture. (CSU, UC)

PHIL 0020. History of Ancient Greek Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A study of the origin and rise of Western Philosophy from the pre-Socratic philosophers, Socrates, Plato, and Aristotle, up to the Hellenistic period. (C-ID PHIL 130) (CSU, UC)

PHIL 0021. History of Modern Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Sixteenth through Eighteenth century philosophy with emphasis on broad epistemological or metaphysical theories, developments of empiricism and rationalism from Descartes to Kant. (C-ID PHIL 140) (CSU, UC)

PHIL 0027. Introduction to Philosophy of Women in Western Cultures
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the concepts of womanhood and feminism in mythic, classic, medieval and major philosophical traditions. Emphasis on the images, roles and beliefs about women found in the humanities and philosophy with respect to their impact and contemporary relevance. (CSU, UC)

PHIL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PHIL 0030. Introduction to Social and Political Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major philosophical issues surrounding the nature of society and justifications for the authority of the state. Focuses on how the concepts of the common good, individual rights, liberty, equality, and democracy relate to notions of justice, private property and the legitimate use of state power. (CSU, UC)

PHIL 0060. Introduction to Environmental Ethics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Philosophical survey of the ethical questions and issues raised when considering the relationship between human beings and the environment. Topics include the moral standing of animals, land use and preservation policy, growth and sustainability, and environmental justice. Theoretical approaches include deep ecology, social ecology, ecofeminism, multicultural perspectives, and environmental pragmatism. (CSU, UC)

PHIL 0065. Introduction to the Philosophy of Science
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The philosophical foundations of science such as criteria for distinguishing between science and pseudo-science, questions concerning scientific progress, justification of scientific hypotheses, the theory-dependence of observation, the nature of scientific revolutions, the possibility of objectivity and the challenges of relativism, feminism and marginalization. (CSU, UC)

PHIL 0210. Ethical Studies in Business
Units: 3
Also known as BUS 210
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore critical moral issues in the business realm, including diversity, equity, and inclusion, corporate responsibility, global economic impacts, environmental concerns, the distribution of wealth, advertising ethics, and digital privacy. This course analyzes these topics emphasizing fundamental moral philosophical theories and principles essential for understanding and resolving ethical challenges in today's business environment. (C-ID PHIL 120) (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Read and critique philosophical texts.
- Apply the disciplinary language of philosophy to philosophical issues.
- Describe and analyze core philosophical problems, their metaphysical presuppositions and practical consequences.
- Craft a clear, coherent, and cogent philosophical essay.

Photography
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Photography is offered as a creative means of visual expression with artistic and commercial application. Opportunities for experimental and applied aspects are provided from the beginning through advanced levels. A serious effort is made to structure offerings so that students can attain individual goals in the field of Photography. Photographic skills complement other diverse fields such as science, environmental studies, law enforcement, teaching, anthropology, art and real estate. This complementary aspect is also stressed in the program.

TRANSFER MAJOR REQUIREMENTS in Photography are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements.

Faculty

Kirkman Amyx
Professor, Photography
B.F.A., Art Center College of Design
M.F.A., San Jose State University

Photography Advisory Committee

- The Professional Photographers of Sacramento Valley, Sacramento, CA
- Kat Walker Photography, Orangevale, CA
- Svitlana Vronska Photography, North Highlands, CA
- Ann Keen Photography, Auburn, CA

Degrees/Certificates

Associate Degree

- Photography (p. 238)
- Photography and Video (p. 238)

Certificate of Achievement

- Photography (p. 239)
- Photography and Video (p. 239)

Skills Certificates

- Alternative Processes in Photography (p. 239)
- Color Photography (p. 239)
- Digital Imaging (p. 240)
- Fine Art Photography (p. 240)
- Landscape Photography (p. 240)
- Narrative Photography (p. 240)
- Photographic Processes (p. 240)
- Portrait, Fashion and Wedding Photography (p. 241)

Photography
AA or AS Degree
Positions for which students of photography are qualified are professional photographer, commercial photographer, advertising and

photographic journalism. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
PHOT 0010	History of Photography (also ARHI 0134)	3
PHOT 0060A	Beginning Photography	3
PHOT 0060B	The Creative Image	3
PHOT 0065	Documentary Photography	3
PHOT 0070A	Studio Lighting	3
PHOT 0075	Introduction to Photoshop (also AAD 0075)	3
PHOT 0078	Digital Photography	3
Select 4 units from the following:		**4**
AAD 0079	Introduction to Digital Filmmaking and Video Production	
PHOT 0028	Independent Study (up to 1 unit)	
PHOT 0070B	Advanced Studio Lighting	
PHOT 0076	Advanced Projects in Photoshop (also AAD 0076)	
PHOT 0080	Color Photography	
PHOT 0088	Business Practices for Photographers	
PHOT 0090I	Night Photography Field Workshop [1]	
or PHOT 0090J	Photojournalism Field Workshop	
or PHOT 0090L	Field Workshop: Landscape	
or PHOT 0090N	Color Nature Photography Field Workshop	
or PHOT 0090P	Outdoor Portrait Workshop	
or PHOT 0090T	Field Workshop: Travel Photography	
or PHOT 0090U	Drone Photography and Videography	
or PHOT 0090W	Wedding and Event Photography Field Workshop	
PHOT 0092	Alternative Processes	
PHOT 0093	Advanced Alternative Processes	
PHOT 0095	Internship in Photography (up to 2 units)	
Total Units		**25**

Photography and Video
AS Degree
This interdisciplinary program of study will enable students to create technically and aesthetically successful still photographs and to capture and edit video with a solid narrative structure that meets client or employer needs. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point

average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
PHOT 0060A	Beginning Photography	3
PHOT 0070A	Studio Lighting	3
PHOT 0075	Introduction to Photoshop (also AAD 0075)	3
PHOT 0078	Digital Photography	3
PHOT 0089	Documentary Filmmaking (also AAD 0089)	3
AAD 0079	Introduction to Digital Filmmaking and Video Production	3
AAD 0082	Intermediate Digital Filmmaking	3
Select 3 units from the following:		**3**
PHOT 0076	Advanced Projects in Photoshop (also AAD 0076)	
AAD 0093	Introduction to Motion Graphics	
Total Units		**24**

Photography
Certificate of Achievement
A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
PHOT 0060A	Beginning Photography	3
PHOT 0065	Documentary Photography	3
PHOT 0070A	Studio Lighting	3
PHOT 0075	Introduction to Photoshop (also AAD 0075)	3
PHOT 0078	Digital Photography	3
PHOT 0080	Color Photography	3
PHOT 0088	Business Practices for Photographers	3
Select 7 units from the following:		**7**
AAD 0020	Portfolio Design	
AAD 0079	Introduction to Digital Filmmaking and Video Production	
PHOT 0010	History of Photography	
PHOT 0028	Independent Study (up to 1 unit)	
PHOT 0060B	The Creative Image	
PHOT 0070B	Advanced Studio Lighting	
PHOT 0076	Advanced Projects in Photoshop (also AAD 0076)	
PHOT 0090I	Night Photography Field Workshop [1]	
or PHOT 0090J	Photojournalism Field Workshop	
or PHOT 0090L	Field Workshop: Landscape	
or PHOT 0090N	Color Nature Photography Field Workshop	
or PHOT 0090P	Outdoor Portrait Workshop	
or PHOT 0090T	Field Workshop: Travel Photography	
or PHOT 0090U	Drone Photography and Videography	
or PHOT 0090W	Wedding and Event Photography Field Workshop	
PHOT 0092	Alternative Processes	
PHOT 0093	Advanced Alternative Processes	
PHOT 0095	Internship in Photography (up to 2 units)	
Total Units		**28**

[1]

 Only 2 units total may be taken from the PHOT 90B-90W workshop courses.

Photography and Video
Certificate of Achievement
A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
PHOT 0060A	Beginning Photography	3
PHOT 0070A	Studio Lighting	3
PHOT/AAD 0075	Introduction to Photoshop	3
PHOT/AAD 0076	Advanced Projects in Photoshop	3
PHOT 0078	Digital Photography	3
PHOT/AAD 0089	Documentary Filmmaking	3
AAD 0079	Introduction to Digital Filmmaking and Video Production	3
AAD 0082	Intermediate Digital Filmmaking	3
AAD 0093	Introduction to Motion Graphics	3
Total Units		**27**

Alternative Processes in Photography
Skills Certificate
For those students who want to broaden their expressive abilities beyond the traditional photographic image. Helps prepare students for creative image making for the advertising and portrait photography markets. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
PHOT 0060B	The Creative Image	3
PHOT 0092	Alternative Processes	3
PHOT 0093	Advanced Alternative Processes	3
Total Units		**9**

Color Photography
Skills Certificate
Assists in preparing students to create visually stimulating images utilizing the power of color. Focuses on the aesthetic use of color, as well as technical mastery of color balancing, accuracy and manipulation. These skills are necessary for both laboratory technicians and

photographers. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 10 units from the following:		**10**
PHOT 0075	Introduction to Photoshop (also AAD 0075)	
PHOT 0078	Digital Photography	
PHOT 0080	Color Photography	
PHOT 0090I	Night Photography Field Workshop (up to 1 unit)	
PHOT 0090L	Field Workshop: Landscape (up to 1 unit)	
PHOT 0090N	Color Nature Photography Field Workshop (up to 1 unit)	
PHOT 0090T	Field Workshop: Travel Photography (up to 1 unit)	
Total Units		**10**

Digital Imaging
Skills Certificate
Designed for students interested in becoming proficient with photographic image capture, preparation and manipulation on the computer. Valuable for those preparing for a career as a photographer, photographic lab technician, or for those upgrading their skills. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
PHOT 0075	Introduction to Photoshop (also AAD 0075)	3
PHOT 0076	Advanced Projects in Photoshop (also AAD 0076)	3
PHOT 0078	Digital Photography	3
PHOT 0080	Color Photography	3
Total Units		**12**

Fine Art Photography
Skills Certificate
Designed to give students a broad range of skills used by both laboratory technicians and photographers. Students will be trained to handle a wide range of difficult assignments and creative techniques. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 12 units from the following:		**12**
PHOT 0010	History of Photography (also ARHI 0134))	
PHOT 0060B	The Creative Image	
PHOT 0090L	Field Workshop: Landscape (up to 1 unit)	

PHOT 0090N	Color Nature Photography Field Workshop (up to 1 unit)	
PHOT 0092	Alternative Processes	
PHOT 0093	Advanced Alternative Processes	
Total Units		**12**

Landscape Photography
Skills Certificate
Course work in landscape photography trains students in the techniques utilized in creating expressive images of the environment. Helps prepare students for capturing the landscape for stock photography use, magazines, web sites and other visual media. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 8 units from the following:		**8**
PHOT 0078	Digital Photography	
PHOT 0080	Color Photography	
PHOT 0090L	Field Workshop: Landscape (up to 1 unit)	
PHOT 0090N	Color Nature Photography Field Workshop (up to 1 unit)	
PHOT 0090T	Field Workshop: Travel Photography (up to 1 unit)	
Total Units		**8**

Narrative Photography
Skills Certificate
This certificate trains students to photograph assignments in such a way that they tell a story. Appropriate for those interested in gaining skills used by photojournalists, documentary and editorial photographers. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 10 units from the following:		**10**
PHOT 0060B	The Creative Image	
PHOT 0065	Documentary Photography	
PHOT 0080 or AAD 0079	Color Photography Introduction to Digital Filmmaking and Video Production	
PHOT 0090T	Field Workshop: Travel Photography (up to 1 unit)	
PHOT 0090W	Wedding and Event Photography Field Workshop (up to 1 unit)	
PHOT 0090J	Photojournalism Field Workshop (up to 1 unit)	
Total Units		**10**

Photographic Processes
Skills Certificate
Designed to give students a broad range of skills used by both laboratory technicians and photographers. Helps train students to handle a wide

range of difficult assignments and creative techniques. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 12 units from the following:		**12**
PHOT 0060B	The Creative Image	
PHOT 0075	Introduction to Photoshop (also AAD 0075)	
PHOT 0078	Digital Photography	
PHOT 0080	Color Photography	
PHOT 0090I	Night Photography Field Workshop (up to 1 unit)	
PHOT 0092	Alternative Processes	
Total Units		**12**

Portrait, Fashion and Wedding Photography
Skills Certificate

For those students interested in preparing for a career in portrait, fashion, or wedding photography. Designed to help train students in portrait techniques and portfolio presentation along with providing an opportunity for students to work with a photographer in the industry. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
Select 13 units from the following:		**13**
PHOT 0070A	Studio Lighting	
PHOT 0070B	Advanced Studio Lighting	
PHOT 0078	Digital Photography	
PHOT 0088	Business Practices for Photographers	
PHOT 0090P	Outdoor Portrait Workshop (up to 1 unit)	
PHOT 0090W	Wedding and Event Photography Field Workshop (up to 1 unit)	
Total Units		**13**

Courses

Understanding course descriptions (p. 311)

PHOT 0010. History of Photography
Units: 3
Also known as ARHI 134
Hours: 54 lecture
Historical survey of photography as an art form and communication tool from its invention to the present. Explores various perspectives including photography as an art form and a technology, influential themes, periods, and photographers. Investigates technical considerations, photography's role in mass culture, and other societal influences. (CSU, UC)

PHOT 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

PHOT 0060A. Beginning Photography
Units: 3
Hours: 72 (36 lecture, 36 activity)
Utilizing digital and film cameras to create photographs that are technically competent and visually appealing. Elements of design and influence of photography as an art form examined. Topics include subject selection, exposure control, composition, lighting, printing, presentation, and responses to photographs within a framework of historical and ethnically and culturally diverse perspectives. (CSU, UC)

PHOT 0060B. The Creative Image
Units: 3
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
The conceptual process, experimentation, and photographic tools of creative image making. Consideration of the work by historical and ethnically and culturally diverse photographers. Topics include creative camera and darkroom experimentation, medium format and toy cameras, pinhole photography, the traditional/digital darkroom and bookmaking. (CSU, UC)

PHOT 0063. Digital Photography
Units: 3
Formerly known as PHOT 78
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Emphasis on practical use of the digital camera in real world situations. Creative and technical controls offered by digital cameras. Image file management and image optimization using Adobe Lightroom. Color management and digital printing. Basic video capture with digital still cameras. (CSU)

PHOT 0065. Documentary Photography
Units: 3
Prerequisite: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Production of photographic essays and individual images that capture what is happening in the world around us. Historical origins and cultural impact of documentary photography and photojournalism. Emphasis on ethics, communication with single images and photographic essays. Bringing together photography and text, contemporary practitioners, and organization of visual essays. (CSU)

PHOT 0070A. Studio Lighting
Units: 3
Prerequisite: Completion of PHOT 60A and PHOT 75 or PHOT 78 with grade(s) of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
The application of studio lighting techniques to portrait and product photography. Concentration on creative and technical control of lighting, background, props and composition. Utilizes both studio strobe and continuous light sources. (CSU)

PHOT 0070B. Advanced Studio Lighting
Units: 3
Prerequisite: Completion of PHOT 70A with a grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Additional creative and technical work with studio lighting and portfolio development. Concentration on refining studio techniques used in commercial and fine art photography. Students create a focused body of work over the course of the semester. (CSU)

PHOT 0075. Introduction to Photoshop
Units: 3
Also known as AAD 75
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Introduction to the acquisition and computer enhancements of digital images for design and photography. Analysis and critique of images from initial concept to final project creation. Basic scanning, image adjustments, retouching, compositing, and file preparation for printing and other uses. (CSU, UC)

PHOT 0076. Advanced Projects in Photoshop
Units: 3
Also known as AAD 76
Prerequisite: Completion of PHOT 75 or AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Advanced digital project development using Photoshop. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Integration of other software programs. Evaluations and critiques of completed projects. (CSU)

PHOT 0079. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as AAD 79 and COMM 31A
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

PHOT 0080. Color Photography
Units: 3
Prerequisite: Completion of PHOT 78 or PHOT 75/AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Application of color theory and technical skills to create expressive color photographs. Study of the history of color photography, color symbolism, and color as a communication element in photography. Composition, exposure, and theme in creating effective color photographs also covered. Implementation of a color-managed workflow to produce accurate color from digital capture to print. (CSU, UC)

PHOT 0088. Business Practices for Photographers
Units: 3
Advisory: Completion of a minimum of three photography courses
Hours: 54 lecture
Successful business practices for commercial, portrait, and fine art photographers. Elements of starting and running a photography business, including overhead, taxes, insurance, copyright law, contracts, pricing and marketing. Overview of business resources provided by professional photography organizations. Creation of a business plan related to the students' career goals. (CSU)

PHOT 0089. Documentary Filmmaking
Units: 3
Also known as AAD 89
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the principles, techniques and terminology that are specific to documentary filmmaking. Students produce documentary films that incorporate industry standard pre-production preparation such as creating contracts, research, location surveys, and script writing. Major topics include camera operation, capturing b-roll, location sound recording, mixing, editing and formatting for distribution. (CSU, UC)

PHOT 0090I. Night Photography Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Intensive field workshop covering methods and processes of night, artificial and available light photography. Topics include camera and lens use, accessory equipment, metering, lighting, and the unique aspects of the event, region or situation being studied. (CSU)

PHOT 0090J. Photojournalism Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Practical experience covering specific event(s). Visual styles, locations, methods, and processes of photojournalism explored. Topics include camera and lens use, composition, equipment, metering and lighting, working methods of photojournalists and the unique aspects of the event or region being studied. (CSU)

PHOT 0090L. Field Workshop: Landscape
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Exploration of landscape photography. Topics include camera and lens use, composition, equipment, metering and lighting, the social contribution of landscape photography and the unique aspects of region being studied. Location of field study will vary. Students must supply camera, digital media or film and presentation materials. (CSU)

PHOT 0090N. Color Nature Photography Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Application of color photography concepts in the field. Topics include subject selection, the impact and use of color, capturing accurate vs. altered color, equipment, composition, metering and overcoming the challenges of location and weather. (CSU)

PHOT 0090P. Outdoor Portrait Workshop
Units: 0.5-3
Prerequisite: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Photographing individuals and groups in an outdoor setting. Topics include camera, lens and equipment selection, camera use, lighting, posing, and composition. (CSU)

PHOT 0090T. Field Workshop: Travel Photography
Units: 0.5-3
Advisory: Completion of PHOT 60A with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Intensive field workshop covering specific locations, methods and processes of travel photography. Includes visual themes, narrative and individual images, composition, equipment, exposure, selection and presentation of photographs. Overview of the population, habitat, environment and geography, culture and traditions of the region being studied. (CSU)

PHOT 0090U. Drone Photography and Videography
Units: 0.5-2
Hours: 13 (7 lecture, 6 activity) per .5 unit
Camera operation and flight maneuvers used by photographers and cinematographers to capture still and motion footage from UAV's (drones). Topics covered include equipment selection, flight controls, safety, image capture and business opportunities. Students utilize department provided equipment. How to prepare for FAA certification will be discussed. (CSU)

PHOT 0090W. Wedding and Event Photography Field Workshop
Units: 0.5-1
Prerequisite: Completion of PHOT 60A or PHOT 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Documentation of weddings and events, such as: conferences, trade shows, public relations events, campaign rallies, performances, holiday parties and Quinceañeras. Working with portable flash, available light and mixed lighting. Posing and capturing groups and individuals in a timely manner. (CSU)

PHOT 0092. Alternative Processes
Units: 3
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Creative expression through alternative photographic processes, many of which were first developed in the 19th century and are known for producing expressive prints with a unique look. Merging of digital technology and non-traditional printing materials explored. Processes may include: cyanotype, salt printing, kallitype, anthotype, tintype, lumen, hand-coated silver emulsion, and inkjet transfers. (CSU)

PHOT 0093. Advanced Alternative Processes
Units: 3
Prerequisite: Completion of PHOT 92 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced study of alternative processes in photography designed to expand on the technical and creative concepts previously acquired. Exploration of the technical and aesthetic variations possible within the processes chosen for study. Creation of a cohesive fine art portfolio. (CSU)

PHOT 0095. Internship in Photography
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Analyze the major historical and contemporary trends and influences within the medium of photography.
- Critique photographs orally and in writing for content, composition, craftsmanship, and originality with terminology commonly used in art and photography.
- Create photographs demonstrating good exposure control under a wide variety of lighting situations, including both natural and studio lighting.
- Utilize the darkroom or computer to produce final images that have appropriate contrast, density and color as well as incorporate the elements of design, design, principles and compositional conventions.
- Distinguish between the key principles of copyright laws and understand industry business practices, and other legal and ethical considerations.
- Develop a portfolio of images that illustrates the student photographer's style, skill with the medium and subject area interests.

Physics
Contact Information

Division
STEM

Dean
Carlos Reyes

Associate Dean
Megan D'Errico

Division Office
V 211, Rocklin Campus

Overview

The Physics Department offers coursework satisfying the needs of students wishing to transfer to four-year colleges and other institutions for further study in science and engineering. Those students wishing a basic background in Physics for study in the many fields based upon science and careers in teaching, medicine, agriculture and other sciences will also find coursework.

TRANSFER MAJOR REQUIREMENTS in Physics are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Physics are qualified for positions in research, teaching, engineering, medicine and industry.

Faculty

Dominic Calabrese
Professor, Physics
B.S., DePaul University
M.S., University of Nebraska, Lincoln
Ph.D., University of Nebraska, Lincoln

Ian Schanning
Assistant Professor, Physics

B.A., UC San Diego
M.S., UC San Diego
Ph.D., UC San Diego

Aviva Shackell
Professor, Physics
B.S., University of California, Santa Barbara
Ph.D., University of California, Los Angeles

Degrees/Certificates

Associate Degree for Transfer

- Physics for Transfer (p. 244)
- UC Transfer Pathway (UCTP): Physics (p. 244)

Physics for Transfer
AS-T Degree

Physics is a program that provides students of diverse abilities and needs rigorous preparation that affords them opportunities to develop the technical, analytical and critical thinking skills necessary to achieve their wide ranging goals and become lifelong learners. Program curriculum introduces students to the fundamental principles that govern the nature of interactions in the physical world. The curriculum strongly emphasizes both the theoretical and experimental fundamentals in physics. Successful completion of the curriculum in physics prepares the student for transfer to four-year colleges and universities.

The Associate in Science in Physics for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Physics or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Physics for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
PHYS 0205	Principles of Physics: Mechanics	4
PHYS 0205L	Principles of Physics Laboratory: Mechanics	1
PHYS 0210	Principles of Physics: Electricity and Magnetism	3
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	1
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics	3
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics	1
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
Total Units		**25**

Additional Recommended Preparation

While not required for this degree, completion of these courses will better prepare students for upper-division physics courses.

Code	Title	Units
MATH 0033	Differential Equations and Linear Algebra	6
CHEM 0001A	General Chemistry I	5

UC Transfer Pathway: Physics
AS-T Degree

The UC Transfer Pathway in Physics prepares students to transfer into the UC system to complete a bachelor's degree in Physics.

In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Students must fulfill the major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete the following general education pattern:

- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses:

Code	Title	Units
CHEM 0001A or CHEM 0003A & CHEM 0003B	General Chemistry I General Chemistry I - Part 1 and General Chemistry I - Part 2	5-6
CHEM 0001B	General Chemistry II	5
ENGL 0001A	Academic Reading and Writing	4
MATH 0030	Analytical Geometry and Calculus I	4
MATH 0031	Analytical Geometry and Calculus II	4
MATH 0032	Analytical Geometry and Calculus III	4
MATH 0033	Differential Equations and Linear Algebra	6
PHYS 0205	Principles of Physics: Mechanics	4
PHYS 0205L	Principles of Physics Laboratory: Mechanics	1

PHYS 0210	Principles of Physics: Electricity and Magnetism	3
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism	1
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics	3
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics	1
Select 3 units from the following:		**3**
ENGL 0001B	Critical Thinking and Writing about Literature	
ENGL 0001C	Critical Thinking and Writing	
PHIL 0004	Introduction to Critical Thinking	
Select 3-4 units from the following:		**3-4**
AAD 0012	Visual Communication (Also COMM 0012)	
ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (Also PHOT 0010)	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
COMM 0006	Performance of Diverse Literatures	
COMM 0012	Visual Communication (Also AAD 0012)	
DFST 0003	American Sign Language III	
DFST 0004	American Sign Language IV	
DFST 0010	Introduction to Deaf Studies	
ENGL 0016	Introduction to LGBTIQ Literature	
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
ENGL 0027	Literature by Women	
ENGL 0029	Introduction to Drama as Literature	
ENGL 0030A	American Literature - Beginnings through Civil War	
ENGL 0030B	American Literature - Civil War to the Present	
ENGL 0032	Introduction to Poetry	
ENGL 0033	Introduction to Shakespeare (The Drama)	
ENGL 0034	Introduction to the Novel	
ENGL 0035	Introduction to the Short Story	
ENGL 0037	American Film Masterpieces	
ENGL 0038	International Film Masterpieces	
ENGL 0040	The Filmed Novel	
ENGL 0042	The Documentary Film	
ENGL 0045	Young Adult Literature	

ENGL 0046A	English Literature
ENGL 0046B	English Literature
ENGL 0047A	World Literature
ENGL 0047B	World Literature
ENGL 0048	Literature of Science Fiction
ETHN 0050	Ethnic Images in Film
FREN 0002	Elementary French - Level II
FREN 0003	Intermediate French - Level I
FREN 0004	Intermediate French - Level II
HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
HIST 0017A	History of the United States to 1877
HIST 0017B	History of the United States since 1865
HIST 0018A	The African American Experience in American History to 1877
HIST 0018B	The African American Experience in American History since 1877
HIST 0019A	History of Traditional East Asia
HIST 0019B	History of Modern East Asia
HIST 0020	California History
HIST 0021	Contemporary United States History
HIST 0022	American Military History
HIST 0023	Chicano/Mexican American History
HIST 0024	Russian History - 10th Century to Present
HIST 0025	Native American History
HIST 0027	Women in American History
HIST 0050	World History to 1500
HIST 0051	World History since 1500
HUM 0001	Introduction to Humanities I
HUM 0002	Introduction to Humanities II
HUM 0003	Introduction to Asian Humanities
HUM 0005	Classical Roots of the Contemporary Western World
HUM 0009	Introduction to Women, Gender and Religion (Also WMST 0003)
HUM 0010	World Religions
HUM 0015	Introduction to Mythology
HUM 0017	Introduction to Atheism
HUM 0020	Introduction to the Hebrew Bible
HUM 0021	Introduction to the New Testament
JPN 0002	Elementary Japanese - Level II
LGBT 0002	Queer (LGBTIQ) Film History
PHIL 0002	Introduction to Philosophy: Ethics
PHIL 0006	Introduction to Philosophy: Knowledge and Reality
PHIL 0010	Philosophy of Religion
PHIL 0013	Introduction to Asian Philosophy
PHIL 0020	History of Ancient Greek Philosophy
PHIL 0021	History of Modern Philosophy
PHIL 0027	Introduction to Philosophy of Women in Western Cultures

PHIL 0030	Introduction to Social and Political Philosophy
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science
MUS 0002	Music Appreciation
MUS 0006A	Music Theory I
MUS 0009A	Music Theory III
MUS 0010	Music Fundamentals
MUS 0011	Introduction and History of Jazz
MUS 0012A	Survey of Music History and Literature to 1750
MUS 0012B	Survey of Music History and Literature from 1750 to Present
MUS 0013	Introduction to Music: History of Rock and Roll
PHOT 0010	History of Photography
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
THEA 0013	Introduction to Theatre
THEA 0016A	Costume History
WMST 0003	Introduction to Women, Gender and Religion (Also HUM 0009)

Select 3-4 units from the following: **3-4**

ADMJ 0050	Introduction to Administration of Justice
AGRI 0198	Food, Society and the Environment
AGRI 0215	Introduction to Agricultural Business and Economics
ANTH 0002	Cultural Anthropology
ANTH 0004	Native Peoples of North America
ANTH 0005	Introduction to Archaeology
ANTH 0006	Introduction to Linguistic Anthropology
ANTH 0007	Native Peoples of California
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion
ANTH 0014	Global Problems
ANTH 0027	Anthropology of Sex, Gender and Sexuality
ARHI 0132	History of Women in Art
BUS 0271	Law and Society
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Communication Theory, Methods, and Practice
COMM 0070	Mass Communication: Media and Society
ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics
ESS 0001	Introduction to Environmental Sciences and Sustainability
ETHN 0011	Introduction to Ethnic Studies
ETHN 0020	Introduction to African American Studies

ETHN 0045	Federal Indian Law and Policy
ETHN 0050	Ethnic Images in Film
ETHN 0053	Introduction to Native American Studies
GEOG 0002	Cultural Geography
GEOG 0003	Geography of California
GEOG 0005	World Regional Geography
HDEV 0001	Human Development Through the Lifespan
HDEV 0004	Child, Family, and Community
HDEV 0009	Child Growth and Development
HDEV 0021	Psychology of Intimate Relationships and Family (Also PSYC 0110)
HDEV 0022	The Family (Also SOC 0004)
HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
HIST 0017A	History of the United States to 1877
HIST 0017B	History of the United States since 1865
HIST 0018A	The African American Experience in American History to 1877
HIST 0018B	The African American Experience in American History since 1877
HIST 0019A	History of Traditional East Asia
HIST 0019B	History of Modern East Asia
HIST 0020	California History
HIST 0021	Contemporary United States History
HIST 0022	American Military History
HIST 0023	Chicano/Mexican American History
HIST 0024	Russian History - 10th Century to Present
HIST 0025	Native American History
HIST 0027	Women in American History
HIST 0050	World History to 1500
HIST 0051	World History since 1500
HUM 0009	Introduction to Women, Gender and Religion (Also WMST 0003)
LGBT 0001	Introduction to LGBT Studies/Queer Theory (Also WMST 0002)
POLS 0001	American Government and Politics
POLS 0002	Introduction to Comparative Government
POLS 0003	Introduction to International Relations
POLS 0004	Russian and East European Political Systems
POLS 0005	California Politics and Government
POLS 0007	Politics of the Developing World
POLS 0008	American Foreign Policy
POLS 0009	Politics of the Middle East
POLS 0012	Terrorism
POLS 0016	Introduction to Political Theory
POLS 0017	Introduction to Political Science Research Methods
POLS 0027	Women and Politics in a Global Society
PSYC 0100	Introduction to Psychology

PSYC 0103	Social Psychology
PSYC 0104	Developmental Psychology
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0107	Abnormal Psychology
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Intimate Relationships and Family (Also HDEV 0021)
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0160	Psychology and Film
PSYC 0180	Cultural Psychology
SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0004	The Family (Also HDEV 22)
SOC 0005	Sociology of Women's Health
SOC 0009	Introduction to Crime, Deviance, and Social Control
SOC 0010	Feminism and Social Action
SOC 0027	Sociology of Gender
SOC 0047	Introduction to Hip Hop and Social Justice
SOC 0110	Introduction to Social Justice
WMST 0001	Introduction to Women's Studies
WMST 0002	Introduction to LGBT Studies/Queer Theory (Also LGBT 0001)
WMST 0003	Introduction to Women, Gender and Religion (Also HUM 0009)
WMST 0004	Feminism and Social Action (Also SOC 0010)
Select 3-5 units from the following:	**3-5**
AGRI 0156	Introduction to Plant Science (Also BIOL 0021)
AGRI 0200	Introduction to Animal Science
ANTH 0001	Biological Anthropology
ANTH 0010	Introduction to Forensic Anthropology
BIOL 0001	General Biology
BIOL 0002	Botany
BIOL 0003	General Zoology
BIOL 0004	Microbiology
BIOL 0005	Human Anatomy
BIOL 0006	Human Physiology
BIOL 0010	Introduction to Biology
BIOL 0011	Concepts of Biology
BIOL 0014	Natural History, Ecology and Conservation (Also ESS 0014)
BIOL 0015	Marine Biology
BIOL 0021	Introduction to Plant Science (Also AGRI 0156)
BIOL 0030	Introduction to Ornithology
BIOL 0035	Introduction to Entomology
BIOL 0055	General Human Anatomy and Physiology

BIOL 0056	Biology: A Human Perspective
ESS 0014	Natural History, Ecology and Conservation (Also BIOL 0014)
PSYC 0140	Introduction to Biopsychology
Select one of the following Language Other Than English options:	**0-5**
DFST 0001	American Sign Language I
DFST 0002	American Sign Language II
DFST 0003	American Sign Language III
FREN 0001	Elementary French - Level I
FREN 0002	Elementary French - Level II
FREN 0003	Intermediate French - Level I
FREN 0004	Intermediate French - Level II
GER 0001	Elementary German - Level I
GER 0002	Elementary German - Level II
ITAL 0001	Elementary Italian - Level I
ITAL 0002	Elementary Italian - Level II
JPN 0001	Elementary Japanese - Level I
JPN 0002	Elementary Japanese - Level II
SPAN 0001	Elementary Spanish - Level I
SPAN 0002	Elementary Spanish - Level II
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
Completion of two years of the same foreign language in high school with grades of "C" or better.	
Equivalent proficiency demonstrated by a specified minimum score on College Board SAT II tests in languages other than English; or a score of 3, 4, or 5 on any languages other than English College Board Advanced Placement (AP) Examinations; or a score of 5 or higher on any languages other than English International Baccalaureate (IB) Higher Level Examinations.	
Completion of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English with grades of "C" or better.	
Total Units	**57-67**

Additional Recommended Preparation:

While not required for this degree, completion of these courses will better prepare students for upper-division physics courses.

Code	Title	Units
CSCI 0012	Programming Concepts and Methodology I	
ENGR 0220	Programming and Problem Solving in Engineering	

1

IGETC for STEM is only an option for students earning AS-T degrees in Biology for Transfer, Chemistry for Transfer, UCTP. Chemistry, and/or UCTP. Physics. IGETC for STEM certification requires the following courses *before* transfer:
- All courses in Areas 1 (except 1C for UC-bound students), 2, and 5 of the traditional IGETC;
- Two courses in Area 3 - one course in Area 3A and one course in Area 3B; and
- Two courses in Area 4 from two different disciplines.

The following deferred courses must be completed *after* transfer:
- One remaining lower-division general education course in Area 3;
- One remaining lower-division general education course in Area 4; and
- One course in Area 6 for UC-bound students who have not satisfied the requirement through proficiency.

(The deferred lower-division courses must be replaced with calculus and/or science courses that are required to be taken before transfer to the university.)

Courses

Understanding course descriptions (p. 311)

PHYS 0000A. Preparation for Calculus-Based Physics
Units: 4
Prerequisite: Completion of MATH 27 or equivalent with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Intended to provide stronger preparation for Physics 205 than Physics 105. Focuses on measurement and the development of the conceptual and mathematical frameworks necessary for problem-solving in physics. (CSU)

PHYS 0010. Basic Concepts in Physics
Units: 3
Prerequisite: Eligibility for Math D
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 lecture
Introduction to the laws of motion, properties of matter, heat, sound, electricity, magnetism, light, atomic and nuclear physics, and relativity. Emphasis on familiar phenomena in everyday life. Intended for nonscience majors. (CSU, UC-with unit limitation)

PHYS 0010L. Basic Concepts in Physics Laboratory
Unit: 1
Formerly known as PHYS 11
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in PHYS 10
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
An optional laboratory course taken in conjunction with PHYS 10. Integrates abstract concepts from PHYS 10 into concrete applications through experimentation. Topics include the SI system of measurement; motion; fluids and properties of matter; thermodynamics; waves; sound; electricity and magnetism; and light and optics. (CSU, UC-with unit limitation)

PHYS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PHYS 0105. General Physics I
Units: 4
Formerly known as PHYS 2A (PHYS 105 and 105L, combined)
Prerequisite: Completion of MATH 27 or equivalent with grade of "C" or better
Corequisite: Concurrent enrollment in PHYS 105L
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Noncalculus introduction to the principles of mechanics, properties of matter and heat. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 105L, C-ID PHYS 105) (CSU, UC-with unit limitation)

PHYS 0105L. General Physics I Laboratory
Unit: 1
Formerly known as PHYS 2A (PHYS 105 and 105L, combined)
Prerequisite: Completion of MATH 27 or high school trigonometry with grade of "C" or better
Corequisite: Concurrent enrollment in PHYS 105
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Laboratory portion of PHYS 105. Noncalculus introduction to the principles of mechanics, properties of matter and heat. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 105, C-ID PHYS 105) (CSU, UC-with unit limitation)

PHYS 0110. General Physics II
Units: 4
Formerly known as PHYS 2B (PHYS 110 and 110L, combined)
Prerequisite: Completion of PHYS 105 and 105L with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 110L
Hours: 72 lecture
Noncalculus introduction to the principles of waves, sound, light, electricity, magnetism, and modern physics. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 110L, C-ID PHYS 110) (CSU, UC-with unit limitation)

PHYS 0110L. General Physics II Laboratory
Unit: 1
Formerly known as PHYS 2B (PHYS 110 and 110L, combined)
Prerequisite: Completion of PHYS 105 and 105L with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 110
Hours: 54 laboratory
Laboratory portion of PHYS 110. Noncalculus introduction to the principles of waves, sound, light, electricity, magnetism, and modern physics. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 110, C-ID PHYS 110) (CSU, UC-with unit limitation)

PHYS 0140. Survey of Chemistry and Physics
Units: 4
Also known as CHEM 140
Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 108 (54 lecture, 54 laboratory)
A conceptual introduction to the basic principles of physics and chemistry including matter, physical and chemical properties, forces and motion, energy, electromagnetism, electromagnetic waves, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors. (C-ID CHEM/PHYS 140) (CSU, UC)

PHYS 0205. Principles of Physics: Mechanics
Units: 4
Formerly known as PHYS 4A (PHYS 205 and 205L, combined)
Prerequisite: Completion of MATH 30 and 31 with grades of "C" or better (MATH 31 may be taken concurrently); AND PHYS A or PHYS 105, or high school physics with grade(s) of "C" or better
Corequisite: Concurrent enrollment in PHYS 205L
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Calculus-based introduction to the principles of kinematics, dynamics, energy, momentum, rotational motion, gravitation and fluids. The Physics 205/210/215 series presents the general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 205L, C-ID PHYS 205) (CSU, UC-with unit limitation)

PHYS 0205L. Principles of Physics Laboratory: Mechanics
Unit: 1
Formerly known as PHYS 4A (PHYS 205 and 205L, combined)
Prerequisite: Completion of MATH 30 and 31 with grades of "C" or better (MATH 31 may be taken concurrently); AND PHYS A, PHYS 105, or high school physics with grade(s) of "C" or better
Corequisite: Concurrent enrollment in PHYS 205
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Laboratory portion of PHYS 205. Calculus-based introduction to the principles of kinematics, dynamics, energy, momentum, rotational motion, gravitation and fluids. The Physics 205/210/215 sequence presents the general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 205, C-ID PHYS 205) (CSU, UC-with unit limitation)

PHYS 0210. Principles of Physics: Electricity and Magnetism
Units: 3
Formerly known as PHYS 4B (PHYS 210 and 210L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 210L
Hours: 54 lecture
Electrostatics, AC and DC circuits, magnetism, Maxwell's Equations, electromagnetic waves, and the electric and magnetic properties of matter. The 205-210-215 sequence presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 210L, C-ID PHYS 210) (CSU, UC-with unit limitation)

PHYS 0210L. Principles of Physics Laboratory: Electricity and Magnetism
Unit: 1
Formerly known as PHYS 4B (PHYS 210 and 210L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 210
Hours: 54 laboratory
Laboratory portion of PHYS 210. Electrostatics, AC and DC circuits, magnetism, Maxwell's Equations, electromagnetic waves, and the electric and magnetic properties of matter. The 205-210-215 sequence presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 210, C-ID PHYS 210) (CSU, UC-with unit limitation)

PHYS 0210R. Problem Solving for Physics 210
Unit: 1
Formerly known as PHYS 4Y
Corequisite: Concurrent enrollment in PHYS 210
Hours: 18 lecture
Optional problem solving course to accompany PHYS 210. Includes electric forces and fields, electrical potential, capacitors and dielectrics, magnetism, electromagnetic waves, and DC and AC circuits. (CSU, UC-with unit limitation)

PHYS 0215. Principles of Physics: Heat, Waves and Modern Physics
Units: 3
Formerly known as PHYS 4C (PHYS 215 and 215L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 215L
Hours: 54 lecture
Thermodynamics, kinetic theory of gases, waves, geometrical and physical optics, sound, and modern physics. The 205-210-215 series presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 215L, C-ID PHYS 215) (CSU, UC-with unit limitation)

PHYS 0215L. Principles of Physics Laboratory: Heat, Waves and Modern Physics
Unit: 1
Formerly known as PHYS 4C (PHYS 215 and 215L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 215
Hours: 54 laboratory
Laboratory portion of PHYS 215. Covers topics of thermodynamics, kinetic theory of gases, waves, geometrical and physical optics, sound, and modern physics. (combined with PHYS 215, C-ID PHYS 215) (CSU, UC-with unit limitation)

PHYS 0215R. Problem Solving for Physics 215
Unit: 1
Formerly known as PHYS 4Z
Corequisite: Concurrent enrollment in PHYS 215
Hours: 18 lecture
Optional problem solving course to accompany PHYS 215. Includes thermodynamics, mechanical waves, optics, and modern physics.(CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Correctly apply the appropriate mathematical tools and physical concepts to solve problems and model physical systems at a level commensurate with the level of mathematics required.
- Apply basic physical principles conceptually to explain simple physical systems and everyday phenomena at a level commensurate with the level of mathematics required.
- Utilize technology as an experimental tool at a level commensurate with the curriculum.
- Evaluate, analyze, and interpret scientific data and utilize verbal and written communication skills to share results of physical measurements at a level commensurate with the curriculum.

Political Science

Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Political Science is a disciplined study of power, politics, and government. Courses focus on political authority and the making of policy and rules. They also focus on how diverse ideas and interests produce political behavior such as cooperation and conflict. Understanding and explaining political problems permits students to critically consider solutions.

TRANSFER MAJOR REQUIREMENTS in Political Science are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Political Science are qualified for staff and management positions in local, state and federal government as well as business and industry. Many work as lobbyists, journalists and in public relations.

Faculty

Betty Chan
Assistant Professor, Political Science
B.A., University of California, Santa Barbara
J.D., University of California, Los Angeles

Michael V. Deaver
Professor, Political Science
B.A., University of California, Los Angeles
M.A., George Washington University
Ph.D., New York University

Political Science for Transfer

AA-T Degree

By completing this degree, students will learn about the operation of political authority at the local, national and international levels. Besides studying American political institutions, students will examine other governments, their civil societies, policy issues and decision making. In addition, appreciation will be gained for the growing role of international actors and importance of global issues. Helping to make sense of it all, students will learn scientific methods and theories.

The Associate in Arts in Political Science for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Political Science or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Political Science for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
POLS 0001	American Government and Politics	3
Select 9 units from the following:		**9**
POLS 0002	Introduction to Comparative Government	
POLS 0003	Introduction to International Relations	
POLS 0016	Introduction to Political Theory	
POLS 0017	Introduction to Political Science Research Methods	
Select 6 units from the following or unused course from the preceding area:		**6**
POLS 0004	Russian and East European Political Systems	
POLS 0005	California Politics and Government	
POLS 0007	Politics of the Developing World	
POLS 0008	American Foreign Policy	
POLS 0009	Politics of the Middle East	
POLS 0012	Terrorism	
POLS 0027	Women and Politics in a Global Society	
Total Units		**18**

Courses

ATTENTION: Effective Fall 2025, the California Community College system will implement Common Course Numbering (CCN) per state mandate (AB1111). CCN courses will be common across all California Community Colleges. One course in Psychology has been included in CCN effective Fall 2025: POLS C1000 (formerly POLS 1).

Understanding course descriptions (p. 311)

POLS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

POLS C1000. American Government and Politics
Units: 3
Formerly known as POLS 1
Hours: 54 lecture
This course is an introduction to government and politics in the United States and California. Students examine the constitutions, structure, and operation of governing institutions, civil liberties and civil rights, political behaviors, political issues, and public policy using political science theory and methodology. (C-ID POLS 110) (CSU, UC)

POLS 0002. Introduction to Comparative Government
Units: 3
Hours: 54 lecture
Compares the major political systems of selected countries of the world, both autocratic and democratic. Comparison includes the origins and development of governments, their constitutional principles, political cultures and ideologies, institutions, parties, and government policies. (C-ID POLS 130) (CSU, UC)

POLS 0003. Introduction to International Relations
Units: 3
Hours: 54 lecture
Introduction to the political relations between governments and other global actors. Examination of theories and concepts that help to explain conflict and cooperation in a range of issue areas. (C-ID POLS 140) (CSU, UC)

POLS 0004. Russian and East European Political Systems
Units: 3
Hours: 54 lecture
Comparison of Russian government and politics with that of other Eastern European states. Discussion of the past imperial and communist systems. Focus on social and political actors, decision-making institutions and major policy issues. (CSU, UC)

POLS 0005. California Politics and Government
Units: 3
Hours: 54 lecture
An examination of state and local governments and their relations to the federal government. Topics include interest groups, elections and policy issues. (CSU, UC)

POLS 0007. Politics of the Developing World
Units: 3
Hours: 54 lecture
Study of revolution and political changes of selected countries in the Developing World/Global South focusing on historical experiences of European and American imperialism and colonialism. Major emphasis on popular movements of self-determination and conflicts between traditional indigenous values and non-traditional Western ideology. Contemporary case studies include Latin America, Africa, and Asia. (CSU, UC)

POLS 0008. American Foreign Policy
Units: 3
Hours: 54 lecture
Overview of American diplomatic history and the politics of foreign policy formation and implementation. Survey of contemporary international issues confronting the U.S. (CSU, UC)

POLS 0009. Politics of the Middle East
Units: 3
Hours: 54 lecture
An introduction to the politics and political systems of the Middle East. Focuses on the influence of colonialism, nationalism and Islam on forms of government, social turmoil and international conflicts. (CSU, UC)

POLS 0012. Terrorism
Units: 3
Hours: 54 lecture
Overview of terrorism, including history, motives, and political impact. Implications of counterterrorism policies. (CSU, UC)

POLS 0016. Introduction to Political Theory
Units: 3
Hours: 54 lecture
Survey of major political theorists and their analyses of political concepts, such as state of nature, natural law, natural rights, and civil and political society. Examination of various theoretical approaches to politics, exploration of proposed solutions to basic political problems, and analysis of selected political theories and the relevance of theory to contemporary issues, such as environmentalism, feminism, and justice. (C-ID POLS 120) (CSU, UC)

POLS 0017. Introduction to Political Science Research Methods
Units: 3
Advisory: Completion of STAT C1000 with grade of "C" or better; completion with grade of "C" or better or concurrent enrollment in any POLS course
Hours: 54 lecture
Surveys research methods employed in political science. Introduces research design, experimental procedures, descriptive methods, instrumentation, collection, interpretation, and reporting of research data, and the ethics of research. (C-ID POLS 160) (CSU, UC)

POLS 0018. California Government
Unit: 1
Hours: 18 lecture
Introduction to politics and government in California. A survey of state and local institutions and processes. Fulfills California state and local government requirement for students who have taken the equivalent of POLS 0001 outside of California. Not open to students who have completed POLS 0005. (CSU, UC)

POLS 0027. Women and Politics in a Global Society
Units: 3
Hours: 54 lecture
Exploration of past and current influences on the political and legal status of women as well as women's participation in the political process throughout the world. Includes political theory and strategy as it relates to women. (CSU, UC)

POLS 0095. Internship in Political Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Courses

Understanding course descriptions (p. 311)

Program Student Learning Outcomes (PSLOs)

- Analyze power and explain how it operates.
- Identify key institutions in government and society and outline their interaction.
- Describe ideas that play key roles in shaping politics and appraise them.
- Describe the role of rules and outline the processes of creating, implementing and changing them.
- Discuss and evaluate the U.S. in a global context.
- Analyze and explain the impact of diversity on government and politics.
- Apply scientific theories on state-society relations.
- Describe issues in politics, outline policies and recommend reforms.

Psychology
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Psychology is the scientific discipline concerned with the study of behavior. Courses are designed to give students academic preparation in several areas of Psychology while concurrently providing material that can be usefully applied to their own lives.

TRANSFER MAJOR REQUIREMENTS in Psychology are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Psychology are qualified for careers in probation, juvenile counseling, rehabilitation and several other fields in the private sector and in government agencies that relate to the helping services.

Faculty

Katharine L. Campi
Professor, Psychology
B.S., State University of New York at Cortland
M.A., University of California, Davis
Ph.D., University of California, Davis

Stephanie M. Coday
Professor, Psychology/Women and Gender Studies
B.A., San Diego State University
M.A., Alliant International University

Brigitte Elder
Professor, Psychology
B.A., University of California, Los Angeles
M.A., University of California, Davis
Ph.D., University of California, Davis

Michelle Laird
Assistant Professor, Psychology
B.A., California State University, Sacramento
MBA., Webster University
Ph.D., Walden University

Robert C. Lennartz
Professor, Psychology
B.S., University of Southern California
Ph.D., University of California, Irvine

Jeanne Rachelle Soles
Professor, Psychology
B.A., California State University, Fresno
M.A., Fresno Pacific University

Dean A. Yoshizumi
Professor, Psychology
B.A., California State University, Fullerton
M.A., California State University, Los Angeles
Ph.D., University of Iowa

Degrees/Certificates

Associate Degree for Transfer

- Psychology for Transfer (p. 252)

Associate Degree

- Psychology (p. 253)

Psychology for Transfer
AA-T Degree

Psychology is defined as the scientific study of behavior. The degree program allows students to utilize research methods; evaluate the credibility of research, theories and applications; understand the core fields, paradigms and theories; apply psychological concepts, theoretical perspectives, empirical findings and historical trends to questions and

issues in personal experience and contemporary society; and understand the ethical standards in academic and applied psychology.

The Associate in Arts in Psychology for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Psychology or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Psychology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
PSYC 0100	Introduction to Psychology	3
PSYC 0142	Introduction to Psychological Statistics	3-4
or STAT C1000	Introduction to Statistics	
PSYC 0200	Introduction to Research Methods in Psychology	3-4
or PSYC 0105	Research Methods in Psychology	
Select 4 units from the following:		**4**
BIOL 0011	Concepts of Biology	
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
PSYC 0140 & 0140L	Introduction to Biopsychology and Biopsychology Laboratory	
Select 3 units from the following:		**3**
ENGL 0001B	Introduction to Literature	
PSYC 0103	Social Psychology	
PSYC 0104	Developmental Psychology	
SOC 0001	Introduction to Sociology	
Select 3-4 units from the following or any unused course from the preceding area:		**3-4**
PSYC 0102	Navigating Psychology: The Major and Careers	
PSYC 0107	Abnormal Psychology	
PSYC 0127	Psychology of Women	
PSYC 0130	Human Sexuality	
PSYC 0150	Alcohol, Drugs and Society	
PSYC 0180	Cultural Psychology	
Total Units		**19-22**

Psychology
AA or AS Degree

The Psychology major provides preparation for upper-division coursework in Psychology at a four-year university. The degree program allows students to develop an understanding of the biological, cognitive and social aspects of human behavior as well as the methodological and experimental practices in the field. Students should choose the emphasis or track appropriate to the transfer institution or area of interest. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
PSYC 0100	Introduction to Psychology	3
PSYC 0105	Research Methods in Psychology	4
PSYC 0142	Introduction to Psychological Statistics	3-4
or MATH 0013	Introduction to Statistics	
Select 9 units from the following:		**9**
ANTH 0001	Biological Anthropology	
ANTH 0002	Cultural Anthropology	
BIOL 0001	General Biology	
or BIOL 0006	Human Physiology	
or BIOL 0010	Introduction to Biology	
or BIOL 0011	Concepts of Biology	
or BIOL 0056	Biology: A Human Perspective	
PSYC 0103	Social Psychology	
PSYC 0104	Developmental Psychology	
PSYC 0107	Abnormal Psychology	
PSYC 0140	Introduction to Biopsychology	
PSYC 0140L	Biopsychology Laboratory	
PSYC 0106	Psychology of Adjustment	
or PSYC 0127	Psychology of Women	
or PSYC 0130	Human Sexuality	
or PSYC 0160	Psychology and Film	
Total Units		**19-20**

Courses

ATTENTION: Effective Fall 2025, the California Community College system will implement Common Course Numbering (CCN) per state mandate

(AB1111). CCN courses will be common across all California Community Colleges. One course in Psychology has been included in CCN effective Fall 2025: PSYC C1000 (formerly PSYC 100).

Understanding course descriptions (p. 311)

PSYC 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PSYC C1000. Introduction to Psychology
Units: 3
Formerly known as PSYC 100
Advisory: Eligibility for college-level writing (C-ID ENGL 100) and reading (a course with an existing skill of ability to read a college level text)
Hours: 54 lecture
This course is an introduction to psychology, which is the study of the mind and behavior. Students focus on theories and concepts of biological, cognitive, developmental, environmental, social, and cultural influences; their applications; and their research foundations. (C-ID PSY 110) (CSU, UC)

PSYC 0102. Navigating Psychology: The Major and Careers
Unit: 1
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Hours: 18 lecture
Provides an overview of the discipline of psychology, including expectations for the psychology major, and career options in various areas, such as academic psychology, applied behavior analysis, counseling and mental health, education, industrial-organizational psychology and related fields. Students design plans of study and clarify their career goals through activities such as interviewing a professional in the field of psychology, resume writing, and interviewing. (CSU)

PSYC 0103. Social Psychology
Units: 3
Formerly known as PSYC 3
Hours: 54 lecture
Study of human interaction with emphasis on the individual within a social context. Topics include development of the self, social perception, interpersonal attraction, prejudice and discrimination, attitude change, moral development, altruism, aggression, social influence, power and leadership, and interaction in groups. (C-ID PSY 170) (CSU, UC)

PSYC 0104. Developmental Psychology
Units: 3
Formerly known as PSYC 4
Advisory: Completion of PSYC C1000 with grade of "C" or better
Hours: 54 lecture
An overview of development from conception to death. Includes socioemotional, language and cognitive development, nature versus nurture, attachment, gender role development, and family structures. Examines psychological theories that apply to the lifespan. A multicultural and multiethnic approach is stressed and the differences in child parent interaction are explored in these contexts. (C-ID PSY 180) (CSU, UC)

PSYC 0105. Research Methods in Psychology
Units: 4
Formerly known as PSYC 5
Prerequisite: Completion of PSYC C1000 with grade of "C" or better; completion of PSYC 142 or STAT C1000 with grade of "C" or better
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Introduction to research methodology, experimental design, and hypothesis testing in the behavioral sciences. Includes the execution, analysis (with statistical software), interpretation, and reporting of individual research projects. (C-ID PSY 205B) (CSU, UC)

PSYC 0106. Psychology of Adjustment
Units: 3
Formerly known as PSYC 6
Hours: 54 lecture
Basic theories of personal and social adjustment. Use of psychological principles and methods in adapting to the challenges of life. Topics include self image and self esteem, interpersonal relations, stress management, mental health and illness, and approaches to personal growth. (C-ID PSY 115) (CSU, UC)

PSYC 0107. Abnormal Psychology
Units: 3
Formerly known as PSYC 7
Advisory: Completion of PSYC C1000 with grade of "C" or better; Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to descriptive psychopathology: the origin, nature, and treatment of psychological and behavioral disorders, including discussion of relevant ethical and diagnostic issues. Major topics include research methods, schizophrenia, anxiety-related disorders, trauma- and stressor-related disorders, depressive disorders, bipolar disorders, obsessive-compulsive and related disorders, personality disorders, eating disorders, substance use and addictive disorders, gender dysphoria, and conflicting models of psychopathology. (C-ID PSY 120) (CSU, UC)

PSYC 0108. Psychology of Death and Dying
Units: 3
Formerly known as PSYC 8
Hours: 54 lecture
An investigation of beliefs, attitudes, and behaviors associated with death, dying and bereavement. Terminal illness, suicide, euthanasia, last rites, legal aspects, death anxiety, cross-cultural beliefs and various philosophical views on the phenomenon of death are explored. (CSU, UC)

PSYC 0110. Psychology of Intimate Relationships and Family
Units: 3
Formerly known as PSYC 10
Also known as HDEV 21
Hours: 54 lecture
Study of the meaning and functions of intimate relationships and family. Consideration given to the nature of commitments, sexuality, alternative relationships, communication, conflict resolution, economics, parenting, crises, and marital separation. Recommended for majors in Human Development and Family and for those in human service careers. (CSU, UC)

PSYC 0127. Psychology of Women
Units: 3
Formerly known as PSYC 27
Hours: 54 lecture
A critical study of psychological theory and data on the cultural and societal factors that influence the development of gender identity and expression, and the ways in which these social constructions shape women's experience. Emphasis is placed on intersectionality with particular emphasis on the effects of culture, class, and ethnicity. (CSU, UC)

PSYC 0130. Human Sexuality
Units: 3
Formerly known as PSYC 30
Hours: 54 lecture
Overview of human sexuality from birth through adulthood: Covers major topics such as gender, sexual anatomy, sexually-transmitted infections, sexual response and disorders, sexual orientation, sexual coercion, and commercial sex. (C-ID PSY 130) (CSU, UC)

PSYC 0140. Introduction to Biopsychology
Units: 3
Formerly known as PSYC 40
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to biopsychology focusing on the relationship between the nervous system and behavior. Emphasis on physiological, biochemical, and neuroanatomical foundations of behavior and mental processes. Topics include the central nervous system function and its relation to psychoactive drug effects, sensory/perceptual processes, sleep and dreaming, learning phenomena, memory mechanisms, human communication disorders, and abnormal behavior. (C-ID PSY 150) (CSU, UC)

PSYC 0140L. Biopsychology Laboratory
Unit: 1
Formerly known as PSYC 40L
Corequisite: Completion with grade of "C" or better or concurrent enrollment in PSYC 140
Hours: 54 laboratory
Focuses on the applied study of the nervous system and its connection to behavior. Specific topics include organization of the brain, anatomy and physiology of the neuron and an examination of sensory motor systems and states of consciousness. Students are introduced to sheep brain and cow eye dissection procedures, interactive computer simulation programs and lab experiments including EEG and EMG data collection. (CSU, UC)

PSYC 0142. Introduction to Psychological Statistics
Units: 3
Formerly known as PSYC 42
Prerequisite: Completion of MATH D with grade of "C" or better
Hours: 54 lecture
Statistical procedures used for experimental analysis in the social and behavioral sciences. Descriptive and correlational statistics, parametric and nonparametric inference tests, and current controversies in hypothesis testing. (C-ID MATH 110) (C-ID SOCI 125) (CSU, UC-with unit limitation)

PSYC 0150. Alcohol, Drugs and Society
Units: 3
Formerly known as PSYC 50
Hours: 54 lecture
The use, misuse, and abuse of all major families of psychoactive drugs, including opioids, stimulants, tobacco, marijuana, hallucinogens, alcohol, psychotherapeutic drugs, and sedative-hypnotics. Topics covered include cross-cultural usage, theories of addiction and treatment, government regulation, and mechanisms of drug action. (CSU)

PSYC 0160. Psychology and Film
Units: 3
Formerly known as PSYC 60
Hours: 54 lecture
Analysis of a selection of modern and contemporary films that have played a critical role in shaping and reflecting cultural assumptions and fears about psychology and psychological states. Examination of how motion pictures depict mental illness, relationships, and other psychologically relevant issues, as well as how films depict the field of psychology itself. Topics include universal themes, the psychological value of filmmaking and viewing, application of theories and concepts, accuracy in the depiction of psychological variables, and psychological impact. (CSU, UC)

PSYC 0180. Cultural Psychology
Units: 3
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Hours: 54 lecture
Examination of psychological principles and theory emphasizing both contemporary and historical research on the influence of culture on human mind and behavior. Topics include the interplay between culture and developmental processes, cognition, emotion, motivation, world-view development, communication, gender, sexuality, health, social behaviors and cultural evolution. (CSU, UC)

PSYC 0200. Introduction to Research Methods in Psychology
Units: 3
Prerequisite: Completion of PSYC C1000 with grade of "C" or better; completion of PSYC 142 or STAT C1000 with grade of "C" or better
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Introduction to research methodology, experimental design, and hypothesis testing in the behavioral sciences. Includes reading psychological literature and report writing, psychological measurement, and the design and analysis of several study types (included but not limited to: case studies, survey research, field studies, correlational methods, and experimental methods. (C-ID PSY 200) (CSU, UC)

Program Student Learning Outcomes (PSLOs)

- Appraise the research methods used in the field of psychology.
- Apply critical thinking skills to evaluate the credibility of research, theories, and applications in the field of psychology.
- Differentiate the core fields, paradigms, and theories of psychology.
- Apply psychological concepts, theoretical perspectives, empirical findings, and historical trends in psychology to questions and issues in their own lives and in contemporary society.
- Describe and apply ethical standards in academic and applied psychology.

Recreation Management
Contact Information

Division
Wellness and Athletics

Dean
Rachel Johnson

Associate Dean
Darci Brownell

Division Office
Ft, Rocklin Campus

Overview

Recreation Management is designed to explore the skills needed to manage programs and events in a variety of recreational settings that include city parks and recreation programs, state and national parklands, hotels, playgrounds, forests, beaches, health clubs, tourism destinations and non-profit community centers. Career fields in recreation include public service, private recreation, outdoor recreation and leadership positions.

Faculty

Mary V. Conway
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Daniel Diaz Romero
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management/Assistant Football Coach
B.S., University of California, Davis
M.A., Western Governor's University
M.S., University of Central Missouri

Heather Eubanks
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Lutheran University
M.A., Azusa Pacific University

John C. Fusano
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason S. Gantt
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California State University, Sacramento
M.S., California State University, Sacramento

Alanna Jackson
Assistant Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., University of Nevada, Reno
M.S., California State University, Sacramento

Brandie Murrish
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben S. Noonan
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Robert B. Willson
Professor, Athletics/Health Education/Kinesiology/Recreation Management
A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Recreation Management Advisory Committee

- Fair Oaks Parks and Recreation District, Fair Oaks, CA
- Sierra College, Rocklin, CA
- Inn Town Campground, Grass Valley and Nevada City, CA
- Sierra Business Council, Nevada City, CA
- Roseville PRD, Roseville, CA
- Sierra Business Council, Nevada City, CA
- Auburn Recreation District, Auburn, CA
- Rocklin Chamber of Commerce, Rocklin, CA
- Sunrise Parks, Citrus Heights, CA
- City of Rocklin Parks and Recreation, Rocklin, CA
- Auburn Recreation District, Auburn, CA
- Golden Sierra Job Training Agency, Roseville, CA
- City of Roseville Parks, Libraries, and Recreation, Roseville, CA
- CA State Parks: Empire Mine State Historic Park, Grass Valley & Malakoff Diggins State Historic Park, North Bloomfield, CA
- Carmichael Park, Carmichael, CA
- Orangevale Recreation & Parks District, Orangevale, CA
- City of Lincoln Recreation District, Lincoln, CA
- Folsom Sports Complex, Folsom, CA
- North Highlands Recreation & Parks District, North Highlands, CA

Degrees/Certificates

Associate Degree for Transfer

Associate Degree

-

Certificate of Achievement

• Recreation Specialist (p. 258)

Hospitality Management for Transfer
AS-T Degree

Hospitality Management allows students flexibility in the selection of courses related to hospitality and tourism management, commercial recreation, and event planning. Curriculum focuses on hotel management, event planning, as well as the basics of entrepreneurial businesses, and the skills needed for working with for- profit, and experience industry agencies (e.g., resorts, ski lodges, conference and meeting facilities, cruise lines, theme parks, destination marketing agencies, spas, clubs, and travel agencies). Local industry professionals from the Placer Valley Tourism and Visit Sacramento work closely with department faculty to give students practical skills associated with internships and jobs in the industry.

The Associate in Science in Hospitality Management for Transfer degree (AS-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Hospitality Management or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Science in Hospitality Management for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

• completion of all courses required for the major with grades of "C" or better; and

• (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

• The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
ECON 0001B	Principles of Microeconomics	3
RECM 0084	Hospitality: Hotel and Lodging Operations	3
RECM 0100	Introduction to Hospitality	3
RECM 0120	Hospitality Cost Control	3
Select 6-7 Units from the following:		**6-7**
BUS 0270	Business Law	
RECM 0010	Foundations of Recreation, Parks, and Tourism Management	
RECM 0020	Program Planning and Event Management	
RECM 0040	Leisure Aspects of the Hospitality Industry	
STAT C1000	Introduction to Statistics	
or MATH 0011	Data Science for All	
or PSYC 0142	Introduction to Psychological Statistics	
Total Units		**18-19**

Recreation Management
AA or AS Degree

The Recreation Management program provides students an opportunity to learn how to motivate others to improve their lives through the constructive use of recreation. Successful completion of the Recreation Management associate degree prepares students for transfer to four-year universities. The curriculum has been designed to meet lower-division major requirements at most transfer institutions in Recreation, Recreation Administration and Resort and Lodging Management. Career opportunities include positions at recreation centers, corporate wellness programs, hotels, resorts and park and recreation programs. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

• Sierra College Associate Degree Requirements (p. 305);
• California General Education Transfer Curriculum (Cal-GETC) (p. 257)

Required Courses

Code	Title	Units
RECM 0001	An Exploration of Recreation, Hospitality and Tourism Industries	1
RECM 0010	Foundations of Recreation, Parks, and Tourism Management	3
RECM 0030	Leadership in Recreation, Parks, and Tourism Management	3
RECM 0042	Recreation and Parks: Natural, Cultural and Heritage Resources	3
Select 12 units from the following:		**12**
BUS 0201 & BUS 0202	Financial Accounting and Financial Accounting II	
BUS 0270	Business Law	
BUS 0260	Introduction to Business	
BUS 0280	Introduction to Marketing	
ECON 0001A	Principles of Macroeconomics	
ECON 0001B	Principles of Microeconomics	
RECM 0020	Program Planning and Event Management	
RECM 0040	Leisure Aspects of the Hospitality Industry	
RECM 0095	Internship in Recreation Management	
RECM 0100	Introduction to Hospitality	
Total Units		**22**

Recreation Specialist
Certificate of Achievement

This certificate program provides an enhanced understanding of the basic service industry skills necessary for successful employment in the recreation, parks, tourism and hospitality industry. This program is designed to meet the needs of students interested in seeking entry-level employment in a wide range of positions within the industry. Career opportunities include: recreation attendant, program coordinator, event planner, recreation program leader, pool manager, sports official (umpire and referee), ski resort worker, camp counselor, theme park attendant, tour guide, golf course employee and other related occupations. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
HED 0001	Standard First Aid/Community CPR	3
RECM 0010	Foundations of Recreation, Parks, and Tourism Management	3
RECM 0020	Program Planning and Event Management	3
RECM 0030	Leadership in Recreation, Parks, and Tourism Management	3
RECM 0040	Leisure Aspects of the Hospitality Industry	3
RECM 0095	Internship in Recreation Management	1
Select 3 units from the following:		**3**
BUS 0266	Introduction to Oral Communication	
COMM 0003	Small Group Communication	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
Select 3 units from the following:		**3**
BUS 0260	Introduction to Business	
BUS 0280	Introduction to Marketing	
Select 2-4 units from the following:		**2-4**
RECM 0070	Backpacking	
RECM 0071	Rock Climbing	
RECM 0072	Wilderness Survival	
Total Units		**24-26**

Courses

Understanding course descriptions (p. 311)

RECM 0001. An Exploration of Recreation, Hospitality and Tourism Industries
Unit: 1
Hours: 18 lecture
An exploration of the Recreation and Hospitality majors with an emphasis on degree options, career mapping, internship opportunities, job outlooks, occupational and professional requirements, pay ranges, and employer expectations. Students will get hands-on experience related to various Recreation, Hospitality and Tourism occupations and gain insight into job roles and responsibilities through guest speakers. (CSU)

RECM 0010. Foundations of Recreation, Parks, and Tourism Management
Units: 3
Hours: 54 lecture
A foundational course focusing on the history, nature, scope and social aspects of leisure services in Western and international cultures. Includes philosophical and ethical issues as well as exploration of possible career paths. (CSU)

RECM 0020. Program Planning and Event Management
Units: 3
Hours: 54 lecture
Theory, delivery systems and processes of program planning, implementation, and evaluation applicable to a variety of public and private agencies. Addresses programs that serve different age groups, interests and needs within a range of environments. Leadership for both professionals and volunteers presented in terms of their relationship to the human services field. (CSU)

RECM 0030. Leadership in Recreation, Parks, and Tourism Management
Units: 3
Hours: 54 lecture
Leadership of recreation activities with emphasis on the social development and integration of individuals into group programs, mechanics of planning, techniques of presentation and a repertoire of social activities as tools of social recreation. (CSU)

RECM 0040. Leisure Aspects of the Hospitality Industry
Units: 3
Hours: 54 lecture
Provide students with tools to review the structure and financial performances of the hospitality industry; food and lodging, resorts, tourism enterprises, attractions, and related operations. Focusing on orientation of customer service, cultural/economic trends, and career opportunities. (CSU)

RECM 0042. Recreation and Parks: Natural, Cultural and Heritage Resources
Units: 3
Hours: 54 lecture
Examines the use of natural, cultural, and heritage resources for recreation, tourism and leisure purposes in a variety of settings under various agencies. Includes the study of various protected areas and facilities, including parks, forests, museums, and cultural sites and how they are influenced by social trends, conflicting use demands, agency responsibilities, environmental considerations, and fiscal implications. (CSU)

RECM 0070. Backpacking
Units: 2
Formerly known as PHED 76
Hours: 54 (18 lecture, 36 activity)
Basics of minimum impact camping and wilderness safety with maximum personal comfort and enjoyment. Emphasizes "leave-no-trace" camping skills, wilderness navigation, shelter use and site selection, group dynamics and leadership. Students should be ambulatory and in good physical health to complete the two required backpacking field trips. Camping, entrance, and transportation fees may be required. (CSU, UC-with unit limitation)

RECM 0071. Rock Climbing
Units: 2
Formerly known as PHED 77
Hours: 54 (18 lecture, 36 activity)
Covers various aspects of climbing including: how to use rope systems and other climbing gear safely, how to tie and use various knots, belaying techniques, call signals, balance, climbing techniques, footwork, flexibility, and rappelling. Students should be ambulatory and in good health to complete the required field trips. Entrance and transportation fees may be required. (CSU, UC-with unit limitation)

RECM 0072. Wilderness Survival
Units: 2
Formerly known as PHED 78
Hours: 54 (27 lecture, 27 laboratory)
Designed to enhance the student's understanding of the outdoors and the natural world. Interactive discussions and experiments involving shelter, water, fire, food, tracking, hazards, and other basic survival skills. Field study required. (CSU)

RECM 0084. Hospitality: Hotel and Lodging Operations
Units: 3
Hours: 54 lecture
Overview of hotel and lodging operating systems, business practices and careers, to include: front office, housekeeping, property maintenance, food and beverage, human resources management, information systems and sales and marketing. (CSU)

RECM 0095. Internship in Recreation Management
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

RECM 0100. Introduction to Hospitality
Units: 3
Hours: 54 lecture
Overview of structure and financial performances of hospitality industry; food and lodging, resorts, tourism enterprises, attractions and related operations. Focus on orientation to customer service, cultural/economic trends and career opportunities. (CSU)

RECM 0120. Hospitality Cost Control
Units: 3
Advisory: Completion of BUS 201 and BUS 202 with grades of "C" or better
Hours: 54 lecture
Analyzing and managing: food, beverage, labor and other costs within a hospitality operation. Emphasis on problem solving, applying cost control techniques to maximize profits while managing expenses. Topics include: establishing standards, cost-volume-profit-analysis, forecasting, purchasing and storage controls, menu costing and pricing, theft prevention and labor control. (CSU)

Program Student Learning Outcomes (PSLOs)

- Identify and practice high safety standards, support environmental needs, and provide a safe positive experience for other participants (students, student athletes, visiting athletes, community and faculty).
- Demonstrate knowledge and skills needed for recreational programs.
- Demonstrate personal responsibility and the importance of different leadership roles.
- Outline criteria for event planning, marketing and promoting in communities.
- Create a balance between physical fitness, social well-being, health, and academic success.

Rise

Contact Information

Division
Student Services

Dean
Bobby Gosal

Division Office
Rise Center, Learning Resource Center, Rocklin Campus

The Rise department is the instructional component of the Rise program at Sierra College. Courses prepare students to be successful in college and future careers by providing a broad understanding of academic and personal success skills, active reading strategies, information literacy, financial literacy, critical thinking, career exploration, and theories of intersectionality, student engagement, and cultural humility. For more information about the Rise program, please visit our website (http://www.sierracollege.edu/student-services/support-programs/rise.php).

Course

RISE 0001. First Year Seminar
Units: 3
Hours: 54 lecture
Introduction to interdisciplinary active reading skills, information literacy, financial literacy, critical thinking, and student success skills. Examines intersectionality and cultural humility as related to student identities, experiences, support, and engagement. (CSU, UC)

RISE 0801. First Year Seminar
Units: 0
Hours: 54 lecture
Introduction to interdisciplinary active reading skills, information literacy, financial literacy, critical thinking, and student success skills. Examines intersectionality and cultural humility as related to student identities, experiences, support, and engagement. (pass/no pass grading) (noncredit)

Program Student Learning Outcomes (PSLOs)

- Develop and apply critical thinking skills.
- Develop and apply active reading strategies.
- Develop and apply financial literacy skills.
- Develop and apply academic and personal success skills.
- Access, evaluate, and analyze resources.
- Utilize intersectionality theory, student engagement theories, and cultural humility to examine students' diverse experiences in college and society.

Skill Development
Contact Information

Division
Library and Learning Resource Center

Dean
Elizabeth Namei

Division Office
LRC 311, Rocklin Campus

Overview

Skill Development courses are offered through the Learning Resource Center.

Courses

Understanding course descriptions (p. 311)

SKDV 0001. Techniques of Tutoring
Unit: 1
Formerly known as SKDV 21A
Advisory: Eligibility for ENGL C1000
Hours: 18 lecture
Introduction to learning theories, styles and techniques as related to tutoring. Fundamentals of communication and motivation for effective tutoring. Strategies for planning tutoring sessions. Tutoring techniques and resources for addressing unique student needs. (CSU)

SKDV 0010. How to be a Successful Online Student
Unit: 1
Hours: 18 lecture
Designed to develop the skills for success in the online classroom. Includes defining online learning and uncovering its myths; online readiness; netiquette; learning styles; time management, study habits, goal setting and motivational techniques; the importance of fostering online community; use of emerging technologies including wikis, blogs and VoiceThreads; student services and resources. Exploration of the use of the campus course management system, completion of basic computer tasks and effective use of Internet tools. (CSU)

SKDV 0020. Information Literacy and Research Skills
Unit: 1
Hours: 18 lecture
Development of information literacy skills for academic and personal research. Emphasis on identifying, locating, evaluating and using information resources. (CSU)

SKDV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

SKDV 0801. Supervised Tutoring
Units: 0
Designed to assist students who desire supplemental tutoring or learning assistance in critical thinking, composition or computation in for all subjects. Tutorial or learning assistance content is based on student need and augments coursework. Use of tutorial or learning assistance services enrolls students in this non-fee, non-credit course, and does not substitute for any other course or coursework. May be repeated. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Evaluate skills and knowledge necessary for academic success.
- Identify and investigate ways to improve skill set to achieve academic success.
- Apply knowledge of skills necessary for success in the academic arena.
- Identify and utilize appropriate academic support resources to improve academic performance.

Sociology
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

Sociology is a disciplined quest for the understanding of human behavior—particularly in post-industrial society. Through a systematic analysis of society, its groups, institutions and processes, sociologists hope to better understand and predict human behavior. The introductory course provides a foundation in sociological concepts, with the goal of having students acquire the perspective in sociology and the ability to see their personal position in a societal context. Other sociology courses focus on social problems, race and ethnic relations, gender and gender identity, and the family.

TRANSFER REQUIREMENTS in Sociology are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Positions for which four-year graduates in Sociology are qualified include, but are not confined to, research, social work, personnel and corrections/probation work.

Faculty

Jennifer Kattman
Professor, Sociology
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Megan E. Seely
Professor, Sociology/Women and Gender Studies

B.A., California State University, Chico
M.A., California State University, Sacramento

Degrees/Certificates

Associate Degrees for Transfer

- Social Justice Studies for Transfer: AA-T degree (p. 261)
- Sociology for Transfer: AA-T degree (p. 261)

Social Justice Studies for Transfer

AA-T Degree

The Social Justice Studies Program utilizes an interdisciplinary approach to the study of social justice. The program explores the intersection of identities, for example race, class, gender and sexual orientation, and analyzes the socio-economic, cultural, environmental, and political influences on inequity and social justice.

The Associate in Arts in Social Justice Studies for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Social Justice or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Social Justice for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
LGBT 0001	Introduction to LGBT Studies/Queer Theory	3
SOC 0003	Race, Ethnicity and Inequality	3
SOC 0015	Introduction to Statistics in Sociology	3
or PSYC 0142	Introduction to Psychological Statistics	
SOC 0027	Sociology of Gender	3
SOC 0110	Introduction to Social Justice	3
Select 3 units from the following:		**3**
ANTH 0004	Native Peoples of North America	
ANTH 0007	Native Peoples of California	
ANTH 0014	Global Problems	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ETHN 0050	Ethnic Images in Film	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0023	Chicano/Mexican American History	
HIST 0025	Native American History	
HIST 0027	Women in American History	
LGBT 0002	Queer (LGBTIQ) Film History	
SOC 0002	Social Problems	
SOC 0005	Sociology of Women's Health	
SOC 0010	Feminism and Social Action	
WMST 0001	Introduction to Women's Studies	
Total Units		**18**

Sociology for Transfer

AA-T Degree

Sociology is a disciplined quest for the understanding of human behavior, particularly in post-industrial society. Through a systematic analysis of society, its groups, institutions and processes, sociologists hope to better understand and predict human behavior. The introductory course provides a foundation in sociological concepts, with the goal of having students acquire the perspective in sociology and the ability to see their personal position in a societal context. Other sociology courses focus on social problems, race and ethnic relations, gender and gender identity, and the family.

The Associate in Arts in Sociology for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Sociology or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Sociology for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
SOC 0001	Introduction to Sociology	3
SOC 0002	Social Problems	3
SOC 0003	Race, Ethnicity and Inequality	3
SOC 0015	Introduction to Statistics in Sociology	3
SOC 0027	Sociology of Gender	3
Select 3 units from the following:		**3**
SOC 0004	The Family (also HDEV 0022)	
SOC 0005	Sociology of Women's Health	
SOC 0009	Introduction to Crime, Deviance, and Social Control	
SOC 0010	Feminism and Social Action (also WMST 0004)	
SOC 0047	Introduction to Hip Hop and Social Justice	
SOC 0095	Internship in Sociology	
SOC 0110	Introduction to Social Justice	
Total Units		**18**

Courses

Understanding course descriptions (p. 311)

SOC 0001. Introduction to Sociology
Units: 3
Hours: 54 lecture
Sociological analysis of social institutions, social interaction and behavior, collective behavior, social change, deviance, conformity, and social stratification. (C-ID SOCI 110) (CSU, UC)

SOC 0002. Social Problems
Units: 3
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the study of major social problems, addressing areas such as social stratification and social institutions. Utilizes a critical approach and emphasizes the social construction of social problems. (C-ID SOCI 115) (CSU, UC)

SOC 0003. Race, Ethnicity and Inequality
Units: 3
Hours: 54 lecture
Examines the historical and contemporary impacts of the social constructs of race and ethnicity in the United States. Closely analyzes racial and ethnic inequalities within social institutions such as politics, economics, education, housing, health and medicine, and criminal justice. Explores anti-racist movements, strategies, and practices to eliminate racial and ethnic inequality. (C-ID SOCI 150) (CSU, UC)

SOC 0004. The Family
Units: 3
Also known as HDEV 22
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the analysis of the family as a social institution. Of particular interest are the changing structure of family, gender roles, dating, marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

SOC 0005. Sociology of Women's Health
Units: 3
Also known as WMST 5
Advisory: Completion of ENGL A with grade of "C" or better
Hours: 54 lecture
Provides a sociological analysis of health issues that concern women throughout their life course. The impact of physiology, psychology, culture, society, and politics upon women's well-being are addressed using the feminist perspective. (CSU, UC)

SOC 0009. Introduction to Crime, Deviance, and Social Control
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in SOC 1
Hours: 54 lecture
Sociological analysis of crime, the criminal justice system, deviance, and mechanisms of social control. Explores the history and social construction of crime, criminality, and deviance. Examines definitions of crime and deviance as well as methods used to control deviant behavior. (C-ID SOCI 160) (CSU, UC)

SOC 0010. Feminism and Social Action
Units: 3
Also known as WMST 4
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
Examines sociological underpinnings of social action and explores unique contributions of feminism in challenging traditional gender scripts and roles. Provides an overview of the ways in which people engage in deliberative social action to change the conditions of their lives and of their communities. Emphasizes sociological theory as applied to issues related to the institutions of family, health, religion, employment, sexual harassment, housing, and interpersonal violence. Students in this course will actively engage in the exploration, analysis, and solutions of feminist issues. (CSU, UC)

SOC 0015. Introduction to Statistics in Sociology
Units: 3
Prerequisite: Completion of intermediate algebra or appropriate placement
Advisory: Concurrent enrollment in a support course (SOC 15S or SOC 815S) is strongly recommended for those who have not recently completed intermediate algebra
Hours: 54 lecture
Introduction to the use of descriptive and inferential statistics in the analysis of sociological data, including: levels and types of measurement, measures of central tendency and variability, distributions, probability, estimation, hypothesis testing, correlation, and regression. Social science statistical software will be explored as an aid in processing and analyzing sociological data. (C-ID SOCI 125) (CSU, UC-with unit limitation)

SOC 0015S. Support for Introduction to Statistics in Sociology
Unit: 1
Corequisite: Concurrent enrollment in SOC 15
Hours: 18 lecture
Support option covering the core prerequisite skills, competencies, and concepts for Statistics in Sociology. Intended for students who are concurrently enrolled in SOC 15. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of sociological data analysis. Strongly recommended for students enrolled in SOC 15 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

SOC 0027. Sociology of Gender
Units: 3
Hours: 54 lecture
A cross-cultural comparison of gender roles, gender identities, and sexualities viewed from sociological perspectives. Examines the social construction of gender inequities and the debates on sex and gender. Analyzes the impact of social, cultural, and political factors on gender expectations and practices. (C-ID SOCI 140) (CSU, UC)

SOC 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

SOC 0047. Introduction to Hip Hop and Social Justice
Units: 3
Formerly known as SOC 11
Hours: 54 lecture
Defining Hip Hop as both a noun and a verb, this course takes a critical look at the history, role, and influence of Hip Hop on social reality. Evaluates both the impact Hip Hop has had on culture and the manipulation of Hip Hop within social institutions. Builds a framework of understanding for socio-political and cultural conditions in exploring hip hop as a vehicle to social change and justice. (CSU, UC)

SOC 0095. Internship in Sociology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

SOC 0110. Introduction to Social Justice
Units: 3
Hours: 54 lecture
Course focuses on the interdisciplinary study of social justice. Examines social justice movements in the United States in relation to key social groups and identities. Provides a better understanding of the socio-economic, cultural, and political conditions among these key social groups. Students in this course will actively engage in addressing social justice issues. (C-ID SJS 110) (CSU, UC)

SOC 0815S. Support for Introduction to Statistics in Sociology
Units: 0
Corequisite: Concurrent enrollment in SOC 15
Hours: 18 lecture
Support option covering the core prerequisite skills, competencies, and concepts for Statistics in Sociology. Intended for students who are concurrently enrolled in SOC 15. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of sociological data analysis. Strongly recommended for students enrolled in SOC 15 with little or no recent algebra knowledge. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Apply sociological theory and critical analysis to key concepts in the study of society in a formal written assignment.
- Describe, analyze and apply sociological research.
- Apply principles of social justice to the study and practice of sociology.

Spanish
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The active part that the United States is now taking in world affairs makes it desirable that a greater number of Americans than ever before have knowledge of foreign languages and cultures. In the most recent census of California, 43.5% of our population speaks a language other than English at home; U.S. census projections show the Hispanic community growing across the nation. For this reason, students will benefit from learning Spanish in preparation for any career. The acquisition of desired practical communication skills is the primary objective of the Spanish program at Sierra College. Courses are organized around grammatical themes imbedded in cultural topics, requiring critical thinking, analysis and practical application. Instruction in the Communicative Method integrates the five key learning objectives of Speaking, Listening, Reading, Writing and Cultural Competence.

Career Opportunities in Spanish

Bilingual: teacher, professor, transcriber, sales representative, customer service representative, web publisher, medical/health worker, realtor, IRS/franchise tax board worker, social services case worker, community outreach specialist, human resources specialist;

Business: international relations consultant, international business personnel, foreign exchange trader, publishing specialist, foreign correspondent, foreign publications/textbook editor, research assistant,

importer/exporter, translator/interpreter, international account manager, international banking officer, airline personnel, public relations officer;

Culture/Tourism: cultural events coordinator, travel agent, translator/interpreter, guide;

Government: national security agent, immigration officer, court interpreter, UNESCO official, Peace Corps employee, translator/interpreter, FBI agent, foreign diplomat missionary, foreign service officer.

Faculty

Sara K. Casler
Professor, Spanish
B.A., Pacific University
M.A., Miami University

Marga Kelly
Professor, Spanish
B.A., Brigham Young University
M.A., Brigham Young University

Zenaido Ramos-Bustos
Professor, Spanish
B.A., California State University, Stanislaus
M.A., University of Illinois, Chicago
M.A., Middlebury College

Degrees/Certificates

`Associate Degree for Transfer`

- Spanish for Transfer (p. 264)

`Associate Degree`

- Spanish (p. 264)

`Skills Certificate`

- Spanish for the Healthcare Professions (p. 265)

Spanish for Transfer
AA-T Degree
This Associate in Arts in Spanish for Transfer (AA-T) degree provides a comprehensive foundation in the Spanish language. The degree ensures the development of listening, reading, writing and speaking skills; examining important contributions to Spanish language literature; examining new ideas from the Spanish speaking world; and cultivating an openness to new ideas and an informed appreciation of Spanish speaking cultures.

The Associate in Arts in Spanish for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Spanish or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing to the CSU system, but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Spanish for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
SPAN 0001	Elementary Spanish - Level I	5
SPAN 0002	Elementary Spanish - Level II	5
SPAN 0003	Intermediate Spanish - Level I	4
SPAN 0004	Intermediate Spanish - Level II	4
SPAN 0017	Intermediate Conversational Spanish	3
Total Units		**21**

NOTE: Students entering the Spanish program at SPAN 0002 or higher are required to satisfy the specified unit requirements of the degree. Students must consult with the Spanish Department Chair for approval of appropriate course substitutions.

Spanish
AA Degree
The Associate of Arts in Spanish degree prepares students for transfer to a baccalaureate program in Spanish and provides a comprehensive foundation in the Spanish language for career fields such as education, international relations, medicine, and social services. The degree ensures the development of listening, reading, writing, and speaking skills; examining important contributions to Spanish language literature; examining new ideas from the Spanish speaking world, and cultivating openness to new ideas and an informed appreciation of Spanish speaking cultures. The major is designed to meet the lower-division requirements for Spanish majors at four-year institutions. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
SPAN 0001	Elementary Spanish - Level I	5
SPAN 0002	Elementary Spanish - Level II	5
SPAN 0003	Intermediate Spanish - Level I	4
SPAN 0004	Intermediate Spanish - Level II	4
Select 3 units from the following:		**3**
ANTH 0006	Introduction to Linguistic Anthropology	
COMM 0007	Intercultural Communication	
ETHN 0030	Introduction to Chicana/o Studies	
HIST 0023	Chicano/Mexican American History	
SOC 0003	Race, Ethnicity and Inequality	
SPAN 0017	Intermediate Conversational Spanish	
SPAN 0019	Spanish for Public Safety	
SPAN 0020	Spanish for the Healthcare Professions	
Total Units		**21**

NOTE: Students entering the Spanish program at SPAN 0002 or higher are required to satisfy the specified unit requirements of the degree. Students must consult with the Spanish Department Chair for approval of appropriate course substitutions.

Spanish for the Healthcare Professions
Skills Certificate

This skills certificate is designed for individuals whose professional careers and personal interests take them to the healthcare field. Spanish is the first language of a large percentage of the population and today's medical professionals must meet both the linguistic and cultural challenges that come with the growing diversity in the healthcare population. Whether you are new to the Spanish language or just want a refresher, this skills certificate emphasizes the language and cultural skills needed by nurses, physicians, pharmacists, technicians, support staff, dietitians, social workers, etc., who are entering or are currently employed in a healthcare setting. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
SPAN 0001	Elementary Spanish - Level I	5
SPAN 0002	Elementary Spanish - Level II	5
SPAN 0020	Spanish for the Healthcare Professions	3
Total Units		**13**

Courses

Understanding course descriptions (p. 311)

SPAN 0001. Elementary Spanish - Level I
Units: 5
Advisory: Eligibility for ENGL C1000
Hours: 90 lecture
First of two semesters of Elementary Spanish. A beginning course which offers students practice in speaking, understanding, reading and writing Spanish, along with exploration of cultural aspects of the Spanish-speaking world. Corresponds to two years of high school study. (C-ID SPAN 100) (CSU, UC)

SPAN 0002. Elementary Spanish - Level II
Units: 5
Prerequisite: Completion of SPAN 1 or two years of high school Spanish with grade(s) of "C" or better
Hours: 90 lecture
Second of two semesters of Elementary Spanish. Provides further practice in speaking, understanding, reading and writing Spanish, along with exploration of cultural aspects of the Spanish-speaking world. (C-ID SPAN 110) (CSU, UC)

SPAN 0003. Intermediate Spanish - Level I
Units: 4
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 72 lecture
First of two semesters of Intermediate Spanish. Continued development of grammar, cultural understanding, conversation skills, writing, and reading through the study of grammar and literature. Students will interact with authentic language in a cultural context. (C-ID SPAN 200) (CSU, UC)

SPAN 0004. Intermediate Spanish - Level II
Units: 4
Prerequisite: Completion of SPAN 3 or four years of high school Spanish with grade(s) of "C" or better
Hours: 72 lecture
Second of two semesters of Intermediate Spanish. Continued development of grammar, cultural understanding, conversation skills, writing, and reading through the study of grammar and literature. Students will interact with authentic language in a cultural context. (C-ID SPAN 210) (CSU, UC)

SPAN 0017. Intermediate Conversational Spanish
Units: 3
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 54 lecture
Develops increasingly complex language abilities through new vocabulary and more advanced grammatical structures. Emphasizes oral communication, grammatical, reading, and writing skills at the intermediate level, and further explores cultural customs. (CSU, UC)

SPAN 0019. Spanish for Public Safety
Units: 3
Hours: 54 lecture
Introductory course in Spanish designed for students whose professional careers take them to the Public Safety field. This course will provide students with the basic necessary skills to establish a conversation and handle situations with the Spanish-speaking public. (CSU)

SPAN 0020. Spanish for the Healthcare Professions
Units: 3
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 54 lecture
Intermediate course in Spanish designed for students whose professional careers and personal interest take them to the healthcare field. Course enables students to convey conversations with Spanish-speaking patients and their families. Students develop basic and intermediate skills in the target language to carry on medical/nursing functions or tasks. Helpful for students who have a basic knowledge of Spanish whose goal is to apply the target language to a healthcare setting. (CSU)

SPAN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Program Student Learning Outcomes (PSLOs)

- Improve listening skills in Spanish and draw reasonable inferences from observations.
- Improve reading skills in Spanish while examining important contributions to Spanish language literature.
- Improve writing skills in Spanish while examining new ideas from the Spanish-speaking world.
- Improve speaking skills in Spanish and develop problem-solving skills by working productively with others.
- Cultivate an openness to new ideas and an informed appreciation of Spanish-speaking cultures.

Theatre Arts
Contact Information

Division
Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

Division Office
W 107, Rocklin Campus

Overview

The Theatre Arts Department offers training, both theoretical and practical, in theatrical production, including performance, technical and business management aspects, as well as the serious study of the development of those aspects from the early Greeks up to the bright lights of Broadway. We believe that the creativity, the personal interaction and the excitement of participating in a performance are highly valuable experiences for any individual. The heightened awareness of beauty and truth are carried on into the later life of the student to perhaps enable him or her to appreciate more fully what is available.

It is recommended that students intending to major in this field take all courses offered by this department. Introductory music, art, communication and dramatic literature courses would also be valuable.

TRANSFER MAJOR REQUIREMENTS in Theatre Arts are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Theatre Arts are qualified for positions in teaching, community theater, television, motion pictures and professional theatre.

Scott Adams
Professor, Theatre Arts
B.A., California State University, Sacramento

M.A., California State University, Sacramento

Rebecca Redmond
Assistant Professor, Theatre Arts

Theatre Arts Advisory Committee

- Chautauqua Playhouse, Carmichael, CA
- IATSE Former President
- IATSE Local 50, Sacramento, CA
- B Street Theatre, Sacramento, CA
- Broadway at Music Circus, Sacramento, CA
- California Shakespeare Theater, Orinda, CA
- Harris Center for the Arts at Folsom Lake College, Folsom, CA
- Mondavi Center, Davis, CA
- Musson Theatrical, Inc., Santa Clara, CA
- Sierra Professional Audio & Video Technologies, Sacramento, CA

Degrees/Certificates

Associate Degree for Transfer

- Theatre Arts for Transfer (p. 266)

Associate Degree

- Theatre Arts (p. 267)

Skills Certificates

- Stagecraft (p. 267)
- Costuming (p. 268)

Theatre Arts for Transfer
AA-T Degree

The Associate in Arts in Theatre Arts for Transfer degree (AA-T) program provides students with a strong foundation in Theatre Arts. Upon completion of the program, students will identify and recall the historical development, common practices and terminology of Western theatre; analyze texts from a performance point of view; communicate clearly and coherently in oral and written forms; collaborate harmoniously and effectively with others as a well-prepared member of the team; and participate effectively in a theatrical production.

The Associate in Arts in Theatre Arts for Transfer degree (AA-T) prepares students to transfer into the CSU system to complete a bachelor's degree in Theatre Arts, Performing Arts, or a major deemed similar by a CSU campus. Students earning an associate degree for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus but not to a particular campus or major. Upon transfer, students will be required to complete no more than 60 additional prescribed units to earn a bachelor's degree.

To earn the Associate in Arts in Theatre Arts for Transfer degree, students must complete 60 CSU-transferable semester units with a minimum grade point average of 2.0, including both of the following:

- completion of all courses required for the major with grades of "C" or better; and
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

The exact wording of the law pertaining to associate degrees for transfer may be found in Education Code Section 66746.

It is highly recommended that, prior to transferring, students complete courses that satisfy the CSU United States History, Constitution and American Ideals graduation requirement. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Required Courses

Code	Title	Units
THEA 0010A	Acting I	3
THEA 0013	Introduction to Theatre	3
Select 4 units from the following:		**4**
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
Select 9-10 units from the following:		**9-10**
THEA 0010B	Acting II	
THEA 0014	Stagecraft	
THEA 0015	Stage Lighting	
THEA 0017	Stage Makeup	
THEA 0021	Script Analysis	
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
Total Units		**19-20**

Theatre Arts
AA Degree
The Theatre Arts Program prepares students for future professional employment, upper division study in the theatrical arts and participation in the theatre and entertainment community. Classes in theatre production, including acting and technical training and basic theatrical concepts are available. The course work provides the student with experience and knowledge to transfer to a four-year college or pursue a future professional career in theatre arts. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (Local General Education) (p. 305)

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Required Courses

Code	Title	Units
THEA 0010A	Acting I	3
THEA 0013	Introduction to Theatre	3
THEA 0014	Stagecraft	3
THEA 0015	Stage Lighting	3
THEA 0021	Script Analysis	3
or THEA 0030	Diversity in American Theatre	
Select 4-6 units from the following:		**4-6**
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
Select 9 units from the following:		**9**
THEA 0010B	Acting II	
THEA 0011	Acting in Movement	
THEA 0016A	Costume History	
THEA 0016B	Costume Construction	
THEA 0017	Stage Makeup	
THEA 0018	Acting for Musical Theatre	
THEA 0019A	Stage Properties	
THEA 0019B	Scenic Painting	
THEA 0024	Stage Management	
THEA 0028	Independent Study	
THEA 0095	Internship in Theatre Arts	
Total Units		**28-30**

Stagecraft
Skills Certificate
Trains students to build scenery and properties in the technical theater. Provides experience in construction, painting, hanging lighting instruments and working backstage. Prepares students to communicate and participate as members of a production team with an understanding of appropriate terminology and procedures. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
THEA 0014	Stagecraft	3
THEA 0015	Stage Lighting	3
THEA 0019A	Stage Properties	3
or THEA 0019B	Scenic Painting	
THEA 0028	Independent Study	1-2
or THEA 0095	Internship in Theatre Arts	

Select 3-4 units from the following: **3-4**

THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
THEA 0024	Stage Management	
Total Units		**13-15**

Costuming
Skills Certificate

Designed for students interested in building period costumes and creating visual characters, as a cutter, stitcher or makeup artist. Focuses on the use of color, different fabrics and finishes and provides basic sewing techniques used for the stage. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
THEA 0016A	Costume History	3
THEA 0016B	Costume Construction	3
THEA 0017	Stage Makeup	3
THEA 0028	Independent Study	1-2
or THEA 0095	Internship in Theatre Arts	
Select 3-4 units from the following:		**3-4**
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
Total Units		**13-15**

Courses

Understanding course descriptions (p. 311)

THEA 0010A. Acting I
Units: 3
Formerly known as DRMA 10A
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of acting techniques focusing on volume and diction, breathing, posture, stage movement and positioning, gestures and listening. Practice of character interpretation and expression through improvisation, selected scenes and monologues. (C-ID THTR 151) (CSU, UC)

THEA 0010B. Acting II
Units: 3
Formerly known as DRMA 10B
Prerequisite: Completion of THEA 10A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of acting techniques focusing on approach to character development with particular emphasis on the realistic convention. Activities include one or more acting projects, as well as work on both contemporary and classical monologues and scenes. (C-ID THTR 152) (CSU, UC)

THEA 0011. Stage Movement
Units: 3
Formerly known as DRMA 11
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of movement styles used in the theatre; basic movement, control, relaxation, and interpretation. Character development through physical exploration and scene study. (CSU, UC)

THEA 0013. Introduction to Theatre
Units: 3
Formerly known as DRMA 13
Hours: 54 lecture
Addresses the impact of theatre as it mirrors the human condition. Covers the social and political impact in the major historical periods, styles, and genres of theatre demonstrated by procedures, production practices, and contributions of significant individual artists, such as playwrights, actors, designers, and directors. Course is open to both majors and non-majors interested in acquiring a critical understanding and appreciation of theatre as a performing art. Required theatre production attendance. (C-ID THTR 111) (CSU, UC)

THEA 0014. Stagecraft
Units: 3
Formerly known as DRMA 14
Hours: 90 (18 lecture, 72 activity)
Covers set construction for main stage productions. Students study tools, hardware, painting, and learn proper construction techniques. Fundamentals of rigging and machinery and how to mount and shift stage scenery are also included. (C-ID THTR 171) (CSU, UC)

THEA 0015. Stage Lighting
Units: 3
Formerly known as DRMA 15
Hours: 90 (18 lecture, 72 activity)
Covers basic principles of color, light sources and instruments, electricity, how to hang, do circuiting, create a cue sheet, lighting plot, and design elements for stage lighting to run a theatrical production. (C-ID THTR 173) (CSU, UC)

THEA 0016A. Costume History
Units: 3
Formerly known as DRMA 16A
Hours: 54 lecture
Study of costumes from the Greek period to the present, with an emphasis on the use of historical costumes for the stage. Period costume design projects examined. Designed for both Theatre Arts majors and non-majors who are interested in acquiring an appreciation for and the terminology of apparel through history. (CSU, UC)

THEA 0016B. Costume Construction
Units: 3
Formerly known as DRMA 16B
Hours: 90 (18 lecture, 72 activity)
Study and implementation of costume construction techniques, from pattern drafting and fabric selection to sewing, serging, fitting, draping, and dyeing. (CSU, UC)

THEA 0017. Stage Makeup
Units: 3
Formerly known as DRMA 17
Hours: 90 (18 lecture, 72 activity)
Theory and practical application of stage make-up and prosthetics. Projects include facial structure alterations, "old age," character, supernatural and various faux injuries. Discussion and critique of student projects. (C-ID THTR 175) (CSU, UC)

THEA 0018. Acting for Musical Theatre
Units: 3
Prerequisite: Completion of MUS 10 with grade of "C" or better or permission from instructor following audition
Advisory: Completion of THEA 10A or MUS 39A with grade of "C" or better or at least one year of private vocal lessons
Hours: 72 (36 lecture, 36 activity)
Requisite acting techniques to be successful in performing in a Broadway style musical. While the focus of the course is on acting, proper techniques in singing and movement will also be included. Students will practice and perform solos and duets. Dance or heavy movement are not emphasized in this course. (CSU, UC)

THEA 0019A. Stage Properties
Units: 3
Formerly Known as DRMA 19A
Hours: 90 (18 lecture, 72 activity)
Covers basic skills to create stage properties through a variety of construction and acquisition methods including locating, procuring, and fabricating specialized props for main stage productions. Students examine ways to utilize common, unusual and specialized materials. Includes period research for prop implementation and identification. (CSU, UC)

THEA 0019B. Scenic Painting
Units: 3
Formerly known as DRMA 19B
Hours: 90 (18 lecture, 72 activity)
Study of scenic painting practices and standards including mixing and matching paints, implementing various painting techniques, and utilizing specialized and experimental materials and tools for practical use in theatrical productions. (CSU, UC)

THEA 0021. Script Analysis
Units: 3
Formerly known as DRMA 21
Hours: 54 lecture
Introduces Dramatic Arts Majors and other students to the fundamental techniques of script analysis. Focus on students' ability to interpret and describe concepts and ideas related to historical and contemporary dramatic literature. Emphasis on development of techniques of script analysis specific to use in acting, directing, design, and critical and social analysis. (C-ID THTR 114) (CSU, UC)

THEA 0022A. Production Crew I
Units: 2
Formerly known as DRMA 22A
Hours: 80 activity
Participation in a college production as a technical assistant, assistant to the designer, or crew member. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022B. Production Crew II
Units: 2
Formerly known as DRMA 22B
Prerequisite: Completion of THEA 22A with grade of "C" or better
Hours: 80 activity
Provides an opportunity for students to participate in a college production as a member of the technical crew or production staff at an intermediate level of responsibility. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022C. Production Crew III
Units: 2
Formerly known as DRMA 22C
Prerequisite: Completion of THEA 22B with grade of "C" or better
Hours: 80 activity
Provides an opportunity for students to participate in a college production in an intermediate leadership level as a member of the production crew. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, theatrical design, stage management, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022D. Production Crew IV
Units: 2
Formerly known as DRMA 22D
Prerequisite: Completion of THEA 22C with grade of "C or better
Hours: 80 activity
Provides an opportunity to participate at an advanced leadership level as a member of the production crew, technical staff or design team of a college production. Focus on one or more of the following areas during the development of the play: scenery, lighting, make-up, costuming, stage operations, stage management, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0023A. Rehearsal and Performance - Cast I
Units: 3
Formerly known as DRMA 12B, DRMA 23A
Hours: 120 activity
The first of four courses that provides an opportunity for students to perform in their first role in a Sierra College production as a member of the cast. Students develop fundamental rehearsal and performance techniques. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023B. Rehearsal and Performance - Cast II
Units: 3
Formerly known as DRMA 23B
Prerequisite: Completion of THEA 23A with grade of "C" or better
Hours: 120 activity
The second of four courses that provides an opportunity for students to perform in their second role in a Sierra College production as a member of the cast. Students investigate more sophisticated performance techniques as well as develop intermediate approaches to script analysis and characterization. All actors are required to audition for roles. Acceptance into the class is dependent upon being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023C. Rehearsal and Performance - Cast III
Units: 3
Formerly known as DRMA 23C
Prerequisite: Completion of THEA 23B with grade of "C" or better
Hours: 120 activity
The third of four courses that provides an opportunity for students to perform in their third role in a Sierra college production as a member of the cast. Students apply increasingly advanced rehearsal and performance techniques to the study of characters with great complexity and depth. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023D. Rehearsal and Performance - Cast IV
Units: 3
Formerly known as DRMA 23D
Prerequisite: Completion of THEA 23C with grade of "C" or better
Hours: 120 activity
The fourth of four courses that provides an opportunity for students to perform in their fourth role in a Sierra College production as a member of the cast. Students apply an advanced skill set of acting techniques toward rehearsal and performance, and will be expected to chart in detail with critical analysis of the process from page to stage. This will include background research of their character, the playwright, reviews, and previous productions. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0024. Stage Management
Units: 3
Advisory: Completion of THEA 22A with grade of "C" or better
Hours: 90 (18 lecture, 72 activity)
Introduces students to the step-by-step process of stage managing a full-scale, live theatrical production. Students will learn the requisite pre-production, post-production, and performance day responsibilities in order to effectively manage the production. Skills acquired for this course include methods of communication with director, designers, cast and crew in a leadership position, writing rehearsal reports, monitoring rehearsals, and posting adjustments to the rehearsal schedule, running paper tech, cue-to-cue rehearsals, and calling cues for the performance over headset. (C-ID THTR 192) (CSU, UC)

THEA 0028. Independent Study
Units: 1-3
Formerly known as DRMA 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

THEA 0029. One Act Workshop
Units: 3
Hours: 81 (27 lecture, 54 activity)
Students will learn the basic requirements for mounting a one-act play from the perspectives of the director, backstage crew and actor. Classes will include lecture and rehearsal time culminating in a public performance of a one-act play. (CSU)

THEA 0030. Diversity in American Theatre
Units: 3
Advisory: Completion of THEA 13 with grade of "C" or better
Hours: 54 lecture
Introduction to the works and contributions of underrepresented communities to American theatre. The course will identify and deconstruct the historical references and significance of major playwrights, composers, and producing theatres created by Asian/Pacific Americans; Black/African Americans; Latinx Americans; European-Americans; Indigenous Americans; and other diverse groups. The theatrical works crafted by these populations will include subjects of race/racism, stereotypes, oppression, class, people with disabilities, and gender role/identity. Topics will be covered through readings, lectures, discussions, video, in addition to required viewing of play and musical productions. (CSU, UC)

THEA 0095. Internship in Theatre Arts
Units: 0.5-4
Formerly known as DRMA 95
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

THEA 0809. Selected Topics in Film Studies
Units: 0
Formerly known as DRMA 809
Hours: 8 to 54 lecture as scheduled
Course designed for older adults. Introduction to a series of films examined for originality, creative virtuosity, impact, structure, and direction. Selected films illustrate a specific dimension of film genre. Genres change with each offering. May be repeated. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Differentiate and evaluate verbally or in written form a theatre-related assignment or project (self-analysis and class work of other students) in terms of technical and aesthetic success.
- Analyze problem, formulate/invent idea then execute and use appropriate techniques to build or construct a solution/project that meets assignment criteria.
- Practice and demonstrate appropriate, safe and sustainable rehearsal/production practices, when inventing and producing solutions, to meet assigned project criteria.
- Use pre-compiled knowledge and devise alternative knowledge structures to demonstrate understanding (including scene breakdown) of plays or musicals.
- Identify, analyze, and communicate understanding of performed works or objects built for production.

- Identify, recognize and express through discussion and written analysis the achievements and contributions of significant and diverse artists (playwrights, designers, directors, actors, producers, stage technicians) and cultures throughout history.

Welding Technology
Contact Information

Division
Business, Technology and Public Service

Dean
Jill Alcorn

Associate Dean
Vance Klinke

Division Office
B3, Rocklin Campus

Overview

The Welding Technology curriculum provides training in the field of commercial and industrial welding and fabrication. Students enrolled in Welding Technology courses will receive both the theoretical technical knowledge and the hands-on skills that will prepare them for a career in welding. An associate degree, a certificate of achievement, and skills certificates may be earned in the Welding Technology program.

Faculty

Jesus de la Torre
Assistant Professor, Welding Technology
B.A., Sonoma State University

Scott Johnson
Assistant Professor, Welding Technology
A.S., Sierra College
B.S., California State University, Fresno

Aleda Vaughn
Professor, Welding Technology
A.S., American River College
A.A., Cosumnes River College

Degrees/Certificates

Associate Degree

- Welding Technology (p.   )

Certificate of Achievement

- Welding (p. 272)

Skills Certificates

- Gas Metal Arc Welding (p. 272)
- Gas Tungsten Arc Welding (p. 272)
- Metal Fabricator and Designer (p. 272)
- Shielded Metal Arc Welding (p. 273)

AA or AS Degree

Successful completion of the degree pattern in Welding Technology prepares students for a career in a variety of manufacturing, construction, and fabrication fields as it relates to welding. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
WELD 0001A	Introduction to Welding and Fabrication	2
WELD 0001B	Basic Welding Fabrication	2
WELD 0002A	Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0002B	Gas Metal Arc Welding of Stainless Steel on Sheet and Plate	2
WELD 0002C	Gas Metal Arc Welding Certifications on Sheet and Plate	2.0
WELD 0003A	Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0003B	Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate	2
WELD 0003C	Gas Tungsten Arc Welding Certifications on Sheet and Plate	2.0
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	2
WELD 0005B	Manual Metal Arc Welding of Mild Carbon Steel Groove Welds	2
WELD 0005C	Manual Metal Arc Welding Certifications on Closed and Open Root Plate	2
WELD 0011	Welding Metallography	4
Select 9-12 units from the following:		**9-12**
WELD 0015A	Manual Metal Arc Welding on Pipe Level 1	
ART 0022	Metal Arts	
ART 0033	Art Metal Casting	
ADVM 0003D	Design for Additive Manufacturing - 3D Printing	
ADVM 0062	Introduction to Computer Aided Design and Computer Aided Manufacturing	
ADVM 0064	Computer-Aided 2D Design	
ADVM 0066	CNC Milling Level 1	
ADVM 0067	CNC Milling Level 2	
BUS 0144	Accounting Fundamentals for Small Business Owners	
BUS 0215	Personal Finance	
BUS 0241	Innovation Concepts for Starting a Small Business	
BUS 0242	Entrepreneurship - Small Business Management	

Code	Title	
BUS 0250	Microsoft Applications for Business	
BUS 0260	Introduction to Business	
MECH 0001	The Science of Electronics	
MECH 0004	Fundamentals of Mechatronics	
MECH 0010	Fundamentals of Electronics	
MECH 0044	Mechatronic Processes and Materials	
WELD 0028	Independent Study	
WELD 0095	Internship in Welding Technology	
Total Units		**35-38**

Welding
Certificate of Achievement

Successful completion of the curriculum in Welding provides students with employable skills in commercial and industrial welding processes. Students are trained to pass industry recognized welding performance testing. Industry-recognized Welder Qualification Test Records are given to those who pass the performance tests. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
WELD 0001A	Introduction to Welding and Fabrication	2
WELD 0001B	Basic Welding Fabrication	2
WELD 0002A	Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0002B	Gas Metal Arc Welding of Stainless Steel on Sheet and Plate	2
WELD 0002C	Gas Metal Arc Welding Certifications on Sheet and Plate	2.0
WELD 0003A	Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0003B	Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate	2
WELD 0003C	Gas Tungsten Arc Welding Certifications on Sheet and Plate	2.0
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	2
WELD 0005B	Manual Metal Arc Welding of Mild Carbon Steel Groove Welds	2
WELD 0005C	Manual Metal Arc Welding Certifications on Closed and Open Root Plate	2
WELD 0011	Welding Metallography	4
Total Units		**26**

Certified Gas Metal Arc Welder
Skills Certificate

This certificate can be completed in 2 semesters. The Gas Metal Arc Welding Skills Certificate prepares students for jobs in small and large fabrication shops building a variety of goods and equipment, welding mild steel and stainless steel in thickness ranges of 16 gauge to 3/8 inch. A skills certificate is designed to provide career technical skills for the focused subject area. Students will be given the opportunity to demonstrate their skills through performance-based tests. Students who successfully pass will be awarded industry-recognized Welder Qualification Test Records (industry certifications).

Required Courses

Code	Title	Units
WELD 0001A	Introduction to Welding and Fabrication	2
WELD 0001B	Basic Welding Fabrication	2
WELD 0002A	Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0002B	Gas Metal Arc Welding of Stainless Steel on Sheet and Plate	2
WELD 0002C	Gas Metal Arc Welding Certifications on Sheet and Plate	2.0
Total Units		**10**

Certified Gas Tungsten Arc Welder
Skills Certificate

This certificate can be completed in 2 semesters. The Certified Gas Tungsten Arc Welder Skills Certificate prepares students for jobs in specialty fabrication shops fabricating and welding mild steel, stainless steel and aluminum in thickness ranges of 16 gauge to 1/8 inch. A skills certificate is designed to provide career technical skills for the focused subject area. Students will be given the opportunity to demonstrate their skills through performance-based tests. Students who successfully pass will be awarded industry-recognized Welder Qualification Test Records (industry certifications).

Required Courses

Code	Title	Units
WELD 0001A	Introduction to Welding and Fabrication	2
WELD 0001B	Basic Welding Fabrication	2
WELD 0003A	Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0003B	Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate	2
WELD 0003C	Gas Tungsten Arc Welding Certifications on Sheet and Plate	2
Total Units		**10**

Metal Fabricator and Designer
Skills Certificate

The Metal Fabricator and Designer Skills Certificate provides students knowledge of the processes, manner and techniques of metalworking used in the welding industry or artistic metal expression applications. It can be a lead into employment with a typical metal fabrication organization and may parallel the manner of methods used by Ironworkers, Boilermakers and Millwrights; however, each of these specialty areas of metalwork encompasses their own system of apprenticeship which this skills certificate is not designed to replace. A skills certificate is designed to provide career technical skill for the focused subject area; it is not equivalent to the Welding Certificate and does not replace Welder Certification which is solely skill performance based.

Required Courses

Code	Title	Units
ART 0022	Metal Arts	3
WELD 0001B	Basic Welding Fabrication	2
WELD 0002A	Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0003A	Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate	2
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	2
WELD 0015A	Shielded Metal Arc Welding on Pipe	2
Total Units		**13**

Certified Manual Metal Arc Welder
Skills Certificate

This certificate can be completed in 2 semesters. The Manual Metal Arc Welder Skills Certificate prepares students for jobs in construction and field equipment repair, welding mild steel in thickness ranges of 1/8" to 1". Students will learn thermal cutting and gouging processes for fabrication and repair. A skills certificate is designed to provide career technical skills for the focused subject area. Students will be given the opportunity to demonstrate their skills through performance-based tests. Students who successfully pass will be awarded industry-recognized Welder Qualification Test Records (industry certifications).

Required Courses

Code	Title	Units
WELD 0001A	Introduction to Welding and Fabrication	2
WELD 0001B	Basic Welding Fabrication	2
WELD 0005A	Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds	2
WELD 0005B	Manual Metal Arc Welding of Mild Carbon Steel Groove Welds	2
WELD 0005C	Manual Metal Arc Welding Certifications on Closed and Open Root Plate	2
Total Units		**10**

Courses

Understanding course descriptions (p. 311)

WELD 0001A. Introduction to Welding and Fabrication
Units: 2
Formerly known as WELD 15
Hours: 72 (18 lecture, 54 laboratory)
Hands-on survey class that focuses on the three common welding processes of Manual Metal Arc Welding, Gas Metal Arc Welding, and Gas Tungsten Arc Welding, including correct setup and "how to" techniques. Plasma Arc Cutting and Oxyacetylene Cutting processes are also covered. This class is a survey of basic welding, cutting and fabrication used by the welding industry, metalworking artists, and interested hobbyists. Perfect for students who have never welded before. (CSU)

WELD 0001B. Basic Welding Fabrication
Units: 2
Formerly known as WELD 70
Prerequisite: Completion of WELD 1A with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Foundational fabrication course includes elements of design and fabrication methods, tool and equipment utilization, materials planning, and print reading. Designed for welding students wanting to learn the basic skills of welding shop steel fabrication. (not transferable)

WELD 0002A. Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 2
Formerly known as WELD 40
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Metal Arc Welding. Explores the various modes of metal transfer when using the Gas Metal Arc Welding process. Prepares students to work in welding shop environment. (not transferable)

WELD 0002B. Gas Metal Arc Welding of Stainless Steel on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 2A with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Covers equipment, metal preparation, and welding of stainless steels in all positions using Gas Metal Arc Welding. Instruction in equipment setup for different metals, filler selection, material identification, and welding techniques using Gas Metal Arc Welding. Students will learn to read and correctly complete welding procedures performed in industry. Helps prepare students for employment in high demand jobs. (not transferable)

WELD 0002C. Gas Metal Arc Welding Certifications on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 2B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Practice and completion of Gas Metal Arc Welding Certifications on sheet and plate. Upon successful completion of the course, students will hold multiple industry-recognized welding certifications in Gas Metal Arc Welding on sheet and plate in 3G and 4G welding positions. Students may choose to seek employment after successful completion of this course. (not transferable)

WELD 0003A. Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 2
Formerly known as WELD 10
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Tungsten Arc Welding. Prepares students to work in welding shop environment. (CSU)

WELD 0003B. Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate
Units: 2
Formerly known as WELD 50
Prerequisite: Completion of WELD 3A with grade of "C" or better
Hours: 72 (18 lecture, 72 laboratory)
Covers equipment, metal preparation, and welding of stainless steels in all positions using Gas Tungsten Arc Welding. Instruction in equipment setup for different metals, filler selection, material identification, and welding techniques using Gas Tungsten Arc Welding. Students will learn to read and correctly complete welding procedures performed in industry. Helps prepare students for employment in high demand jobs. (CSU)

WELD 0003C. Gas Tungsten Arc Welding Certifications on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 3B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Practice and completion of Gas Tungsten Arc Welding Certifications on sheet and plate. Upon successful completion of the course, students will hold multiple industry-recognized welding certifications in Gas Tungsten Arc Welding on sheet and plate in 3G and 4G welding positions. Students may choose to seek employment after successful completion of this course. (not transferable)

WELD 0005A. Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds
Units: 2
Formerly known as WELD 20
Hours: 72 (18 lecture, 54 laboratory)
An introduction to the principles of manual metal arc welding (MMAW), setup/use of MMAW equipment, and safe use of tools and equipment. Provides instruction in welding mild carbon steel fillet weld joints in various positions. Prepares students who wish to pursue a career in structural or pipe welding outdoors at various construction sites. (C-ID WELD 101X) (not transferable)

WELD 0005B. Manual Metal Arc Welding of Mild Carbon Steel Groove Welds
Units: 2
Formerly known as WELD 25
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in WELD 5A
Hours: 72 (18 lecture, 54 laboratory)
An expansion of the principles of Manual Metal Arc Welding (MMAW). Provides instruction in welding mild carbon steel groove weld joints in various positions, with backing and open root joints. Prepares students who wish to pursue a career in structural or pipe welding outdoors at various construction sites. (not transferable)

WELD 0005C. Manual Metal Arc Welding Certifications on Closed and Open Root Plate
Units: 2
Formerly known as WELD 80
Prerequisite: Completion of WELD 5B and WELD 2A with grades of "C" or better
Advisory: Students must be competent in vertical and overhead position welding using certification welding processes of MMAW, FCAW-G and FCAW-S
Hours: 72 (18 lecture, 54 laboratory)
Designed to certify the welder within the guidelines of American Welding Society (AWS) Structural Steel Code D1.1. Focus on manipulative skill development with MMAW E-7018 in 3G and 4G, MMAW E-6010 in 3G and 4G open root. Students will earn industry recognized certifications in Manual Metal Arc Welding. (not transferable)

WELD 0011. Welding Metallography
Units: 4
Formerly known as WELD 60
Prerequisite: Completion of WELD 1A, WELD 2A, WELD 3A or WELD 5A with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Exploration of the production and properties of ferrous metals used in the welding industry. The chemical and physical properties of metals, crystallization, and theoretical concepts of alloying. Laboratory experiments in metal identification, hardness and destructive testing, heat treating, sample preparation, and microphotography. (CSU)

WELD 0015A. Manual Metal Arc Welding on Pipe Level 1
Units: 2
Formerly known as WELD 30
Prerequisite: Completion of WELD 5B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Welding of pipe using accepted practices of industry with Manual Metal Arc Welding Process. Emphasis on the welding techniques used for out-of-position welding (2G, 5G, 6G, and 6GR pipe full penetration welds). (CSU)

WELD 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

WELD 0095. Internship in Welding Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

WELD 0801A. Introduction to Welding and Fabrication
Units: 0
Hours: 72 (18 lecture, 54 laboratory)
Hands-on survey class that focuses on the three common welding processes of Manual Metal Arc Welding, Gas Metal Arc Welding, and Gas Tungsten Arc Welding, including correct setup and "how to" techniques. Plasma Arc Cutting and Oxyacetylene Cutting processes are also covered. This class is a survey of basic welding, cutting, and fabrication used by the welding industry, metalworking artists, and interested hobbyists. Perfect for students who have never welded before. (noncredit)

WELD 0802A. Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 0
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Metal Arc Welding. Explores the various modes of metal transfer when using the Gas Metal Arc Welding process. Prepares students to work in welding shop environment. (noncredit)

WELD 0810. Welding Technology Industry Training 1
Units: 0
Hours: 42 (6 lecture, 36 laboratory)
Covers welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Metal fabrication skills for specific employment needs and welding certification testing are provided as requested by employers. (noncredit)

WELD 0811. Welding Technology Industry Training 2
Units: 0
Hours: 42 (6 lecture, 36 laboratory)
Covers advanced welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Advanced metal fabrication skills for specific employment needs and advanced welding certification testing are provided as requested by employers. (noncredit)

Program Student Learning Outcomes (PSLOs)

- Be aware of and demonstrate a high level of understanding of safety practices expected with metal-working equipment in a welding environment.
- Accept personal responsibility in developing manipulative skills of the craft with the knowledge and creativity to recognize, analyze, problem solve to successful completion.
- Apply reading, writing, and listening practice to interpret welding terminology, blueprints, procedures, and directions along with active verbal communication to facilitate mutual understanding in the workforce.

Women and Gender Studies
Contact Information

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Liberal Arts

Dean
Patrick Marasso

Associate Deans
Soni Verma, Maria Villasenor

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Degrees/Certificates
Women's Studies
AA Degree
Women's Studies is an interdisciplinary major based on the premise that gender is a historical variable that affects the social, economic and political structure of our society as well as the everyday lives of women and men. Employing a wide range of perspectives from disciplines such as history, literature, philosophy, sociology, psychology, art, anthropology and biology, students will explore and examine how these disciplines pertain to women and how women have contributed to the cultural and sociological landscape.

The AA degree provides students with core courses in Women's Studies. Students may utilize the Women's Studies curriculum to fulfill transferable general education requirements for CSU and UC systems as well as lower division Women's Studies courses for transfer to four-year institutions with women's studies majors. In all cases, students should consult with a counselor for more information on university admission and transfer requirements. Students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0 and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (p. 305);
- (p. 305)California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Required Courses

Code	Title	Units
WMST 0001	Introduction to Women's Studies	3
Select 15 units from the following:		**15**
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
ARHI 0132	History of Women in Art	
ENGL 0027	Literature by Women	
HIST 0027	Women in American History	

PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
POLS 0027	Women and Politics in a Global Society	
PSYC 0127	Psychology of Women	
PSYC 0130	Human Sexuality	
SOC 0005	Sociology of Women's Health	
SOC 0027	Sociology of Gender	
WMST 0002	Introduction to LGBT Studies/Queer Theory (also LGBT 0001)	
WMST 0003	Introduction to Women, Gender and Religion (also HUM 0009)	
WMST 0004	Feminism and Social Action (also SOC 0010)	
WMST 0006	Introduction to Disability Studies	3
WMST 0300	Selected Topics in Women and Gender Studies	1-3
Total Units		**22-24**

Courses

Understanding course descriptions (p. 311)

WMST 0001. Introduction to Women's Studies
Units: 3
Prerequisite: Eligibility for ENGL N
Hours: 54 lecture
Introduction to the origins, purpose and methods of Women's Studies. The subject matter will explore a wide range of social issues affecting women of diverse backgrounds and identities. Gender will be studied as it intersects with race, ethnicity, sexuality, class, dis/ability, age, religion, nationality and other systems of difference. (C-ID SJS 120) (CSU, UC)

WMST 0002. Introduction to LGBT Studies/Queer Theory
Units: 3
Also known as LGBT 1
Hours: 54 lecture
A broad and general exploration of Lesbian, Gay, Bisexual, Transgender, Queer Studies and its relationship to Feminism. Emphasis on Sexual Orientation/Gender Identity and Expression and their intersections with Race/Ethnicity, Class, the LGBT Rights movement in the United States and globally. (C-ID SJS 130) (CSU, UC)

WMST 0003. Introduction to Women, Gender and Religion
Units: 3
Also known as HUM 9
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Religion from a feminist perspective through a cross-cultural examination of major religious traditions of the East and West, as well as tribal faith practices. Emphasis on the historical role of women and gender in rituals, sacred texts, institutional structures, doctrine and religious iconography with respect to the impact on contemporary women regarding faith, politics and identity. (CSU, UC)

WMST 0004. Feminism and Social Action
Units: 3
Also known as SOC 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
Examines sociological underpinnings of social action and explores unique contributions of feminism in challenging traditional gender scripts and roles. Provides an overview of the ways in which people engage in deliberative social action to change the conditions of their lives and of their communities. Emphasizes sociological theory as applied to issues related to the institutions of family, health, religion, employment, sexual harassment, housing, and interpersonal violence. Students in this course will actively engage in the exploration, analysis, and solutions of feminist issues. (CSU, UC)

WMST 0005. Sociology of Women's Health
Units: 3
Also known as SOC 5
Advisory: Completion of ENGL A with grade of "C" or better
Hours: 54 lecture
Provides a sociological analysis of health issues that concern women throughout their life course. The impact of physiology, psychology, culture, society, and politics upon women's well-being are addressed using the feminist perspective. (CSU, UC)

WMST 0006. Introduction to Disability Studies
Units: 3
Hours: 54 lecture
Overview of the social and personal meaning of disability and chronic illness. Students will explore definitions and conceptual models for the study of disability, the history of disabled people, bio-ethical perspectives, the depiction of disability in literature and the arts, public attitudes, and legal/social policies. The course will investigate the intersections of disability with social factors such as gender, sexual orientation, race, ethnicity, and class. Community engagement is a key component throughout the course. (CSU, UC)

WMST 0095. Internship in Women and Gender Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

WMST 0300. Selected Topics in Women and Gender Studies
Units: 1-3
Hours: 18 lecture per unit
Examines various topics within the field of women's and gender studies. Different issues will be covered based on the interests and expertise of the faculty teaching the course. Approaches topics from broadly intersectional perspectives using feminist concepts and methods. Potential topics include: Disability, Death and Caregiving; Gender and Creativity; Masculinity; Gender and Wellness; Feminism War; Gender and Social Movements; Gender Human Rights; Reproductive Justice; New Feminisms. (CSU)

Program Student Learning Outcomes (PSLOs)

- Differentiate between sex and gender in the context of shifting definitions of woman.
- Define and deconstruct explicit and implicit privilege including, but not limited to, white privilege, male privilege and heterosexual privilege.
- Evaluate the social construction of gender and explore how it pertains to the particular inquiry of study undertaken (e.g., sexuality; queer theory; anthropology; art history).
- Apply cross-cultural, transnational or global awareness to "significant questions" concerning women and gender.
- Appraise gendered construction of knowledge and social institutions and how they directly apply to the subject under scrutiny.

ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

STUDENT RESOURCES

Admission and Enrollment

Admission

Eligibility

Admission to Sierra College is open to any person who:

1. Has a high school diploma, GED, or passed the high school proficiency examination, or
2. Is over 18 years of age and capable of profiting from instruction.

Admission Procedures

All new students and students returning to Sierra College after an absence of one primary (Fall or Spring) semesters must submit an application for admission prior to registering for classes. Electronic applications are available online at www.sierracollege.edu (http://www.sierracollege.edu). Paper applications may be obtained at a campus Admissions and Records office. Students are encouraged to submit official high school and college transcripts to Admissions and Records.

Each semester the college offers registration opportunities to those who file an application for admission. For more information regarding registration steps, please visit the Admissions and Records website (https://www.sierracollege.edu/admissions/).

Residency Requirements

For the purpose of determining tuition and enrollment fees, Sierra College students are subject to the legal residence restrictions established by the California legislature. Residency is determined at the time of admission and requires a statement of legal residence. Supporting documentation may also be required.

Any student who has not established California residency will be classified as a nonresident for tuition purposes. Regulations allow certain students to apply for nonresident tuition waivers. Nonresident students who wish to request a residency status change must submit a Residency Reclassification Petition and required documentation by the end of the semester in question to Admissions and Records. Additional residency documentation options are available for active and discharged members of the military.

For further information on how California residency may be established, or how to apply for a nonresident tuition waiver, please click here (https://solutions.sierracollege.edu/TDClient/1795/Portal/KB/ArticleDet/?ID=74019) or contact Admissions and Records.

International Students

International students attend Sierra College from around the world. Assistance with the application and registration process is provided by Admissions and Records. Students can access international student information and application forms on the college website (https://www.sierracollege.edu/student-services/support-programs/international-students/).

International students wishing to apply for study to the college on an F-1 visa must submit the following to Admissions and Records:

1. A completed Sierra College International Student Application.
2. Meet at least one of the following English Language Requirements: TOEFL (Test of English as a Foreign Language) score of 98 iBT (internet- based test), Duolingo Score of 130, Cambridge English Score (CEFR) of C1, or IELTS (International English Language Testing System) 7.0. This requirement is waived for students from countries that use English as the primary language in their educational systems. This requirement is waived for students from countries that use English as the primary language in their educational systems.
3. An official bank statement (in English) dated within three months indicating that there are sufficient funds available to cover tuition expenses (minimum $50,000.00 U.S. dollars).
4. Official transcripts translated into English indicating successful completion at a secondary school equivalent to completion of an American high school and transcripts from any colleges or universities attended.
5. A copy of valid passport (photo page).
6. A non-refundable application processing fee of $200.00 payable to Sierra College in the form of a MasterCard or Visa credit card, cashier's check, or check drawn on a U.S. bank (do not send cash).

International Student Priority Application Deadlines

Fall semester	May 1
Spring semester	October 15

NOTE: Prior to arriving in the United States, prospective students shall submit to Sierra College proof of freedom from tuberculosis dated no more than 90 days before the start of classes. This report must be professionally translated to English.

Health Insurance

In the United States, health care can be costly. All international students must purchase medical insurance that covers their medical needs while studying in the Unites States. It is strongly encouraged that you purchase medical insurance that covered emergency medical travel if you need to return home for medical reasons.

Academic Enrichment Program

Sierra College provides special part-time admission to students who have completed the eighth grade and have demonstrated satisfactory academic standing.

Students must attend a high school which has a current Academic Enrichment Compliance form on file. Home schooled students must have an affidavit indicating they are legally home schooled.

Students must submit a Sierra College application for admission, an Academic Enrichment Permission form, and a high school transcript as needed. Enrollment must be recommended by the school principal or counselor/designee, and have the consent of a parent or guardian. Students should be counseled by the high school staff to determine the courses in which they should enroll. Enrollment is limited to a maximum of 11 units per semester. Specific courses in which students may not enroll are published online on the Academic Enrichment Restricted Course List. Students admitted under these provisions are subject to all college rules and regulations and are not eligible for student employment. For more information please contact the Outreach Office at (916) 660-7340 or visit the College in High School website (https://www.sierracollege.edu/admissions/how-to-apply/attending-college-in-high-school/).

Dual Enrollment Program

Sierra College provides special part-time admission to students at participating high schools to enroll in college courses offered on their high school campus. Students can receive high school and college credit upon successful completion of these courses. Students must submit a Sierra College application for admission, a Dual Enrollment Permission Form, and transcripts if requested. Enrollment must be approved by the high school counselor or designee and have the consent of a parent or guardian. Enrollment is limited to 11 units per semester, unless a 15 unit exception is allowable for specific course types. Students admitted under these provisions are subject to all college rules and regulations and are not eligible for student employment.

For more information please visit the College in High School website (https://www.sierracollege.edu/admissions/how-to-apply/attending-college-in-high-school/).

Reference: Sierra College Board Policies/Administrative Procedures Chapter 5.

Getting Started at Sierra College

Sierra College provides core services, including counseling, advising, and other education and career planning services to ensure students have a successful transition to college.

Steps to Getting Started

1. Apply for admission
2. Attend Career and Academic Planning (CAP) session
3. Register for classes

These steps, most of which may be completed online, provide a process that brings the College and the students together in a partnership agreement designed to help students develop and achieve their educational goals.

Agreement

Sierra College will:

- Assess students' basic educational skills and career goals
- Orient students to the college's programs, services and policies
- Provide top-quality instruction and services
- Offer a wide variety of courses
- Offer services to support students' education
- Follow up on students' progress toward educational goals

Students will:

- Complete College Terms and Conditions
- Declare an educational goal
- Meet with a counselor to design an educational plan
- Attend classes and complete assigned coursework
- Seek out support services as needed
- Strive to make progress toward goals

Required Steps to Register

Students who are new to Sierra College and returning students who have been away from Sierra College for three years or more must complete College Terms and Conditions and Career and Academic Planning (CAP) prior to registering for classes.

College Terms and Conditions

College Terms and Conditions may be reviewed and completed online through mySierra (the password protected portal that gives users access to secured information on the Sierra College intranet). College Terms and Conditions provides information about programs, student support services, academic expectations and class registration procedures.

Placement and Testing Services

As part of the process to enhance student success, Sierra College provides students with an initial recommended placement in transfer level math and English. English as a Second language students complete a self-guided placement. Recommended course placement in math and English is based on information provided by student on the college application

Counseling

Sierra College requires new students to complete a Career and Academic Planning (CAP) session before meeting with a counselor to develop a My Academic Plan (MAP). Counselors may also refer students to support services and answer specific questions and concerns.

Exemptions

Some students are exempt from College Terms and Conditions and counseling requirements. Nevertheless, students are encouraged to take advantage of these services. Students are exempt if they meet any of the following criteria:

- Hold an associate degree or higher;
- Apply with an educational goal of "educational development," "maintain certificate or license," or "advance in current job/career."

Challenges or Appeals

A student may file a challenge or complaint if the student believes that the Student Success Act regulations are not being met. All challenges, appeals, complaints, or requests for information should be directed to Counseling.

Enrollment Priorities

Enrollment priority is provided for students enrolling at Sierra College for the purpose of degree or certificate attainment, transfer to a four-year college or university, or career advancement. Students must:

- have completed College Terms and Conditions;
- attended a counseling appointment and developed a student education plan;

- be in good academic standing, first semester academic or progress probation, or be making satisfactory semester progress with a grade point average of 2.0 or higher;
- have completed less than 100 degree-applicable units at Sierra College (excludes all courses numbered 500 and above, such as non-degree applicable English as a Second Language courses, basic skills courses, or special courses designed to address the educational limitations of students with disabilities).

Registration priority shall be provided to students in order of priority listed below (within each category, priority is assigned by number of units completed at Sierra College).

Priority 1

- Students who are receiving services through CalWORKs;
- Students who are determined to be eligible for services through Student Accessibility Services (SAS) (formerly Disabled Students Program and Services (DSPS));
- Students who are receiving services through Extended Opportunity Program and Services (EOPS);
- Students who are Tribal TANF recipients;
- Foster youth or former foster youth students up to and including the age of 25 by the first day of the term;
- Homeless youth;
- Veterans and Members of Armed Forces or State Military Reserve (have priority for 4 academic years). See Veterans Success Center for more information;
- Student parents (a student who has a child or children under 18 years of age who will receive more than half of their support from that student).

Priority 2 Student groups in the following order:

1. College-authorized: Intercollegiate Athletes and TRiO students.
2. 1st semester Sierra Promise students.
3. Continuing, returning, and Ghidotti Early College High School students.
4. New students – must have completed College Terms and Conditions, counseling/advising and a student education plan.

Priority 3

- Students who have lost enrollment priority.
- All other students (including but not limited to Academic Enrichment students).

Enrollment priority for any student (other than foster youth or former foster youth) shall be lost at the first registration opportunity for either of the following reasons:

1. The student is placed on academic and/or progress probation for two consecutive semesters and is subject to dismissal. (An automatic appeal will be granted for any student making satisfactory semester progress by earning a semester GPA of 2.0 or higher.)
2. The student has earned 100 or more degree-applicable units at Sierra College.

DSPS students who have been granted an accommodation of registration priority as part of their documented plan are not subject to loss of registration priority.

Reference: Sierra College Board Policy 5055, and Administrative Procedure 5055 (https://go.boarddocs.com/ca/sierra/Board.nsf/goto/?open&id=BSZURV7D4F98#).

Enrollment Priority Appeals

Students may appeal the loss of priority enrollment status due to extenuating circumstances, or where a student with a disability applied for, but did not receive reasonable accommodation in a timely manner. Extenuating circumstances are verified cases of accidents, illnesses or other circumstances beyond the control of the student. Contact an Admissions and Records office for further information.

Class Registration

Students may register at the designated date and time or at any time thereafter during scheduled hours of registration. Students are encouraged to use mySierra web registration at www.sierracollege.edu (http://www.sierracollege.edu) during their scheduled time to ensure the best possible course selection.

Waitlists

A 20 space wailist may be established for classes offered by Sierra College that have reached maximum enrollment.

- Eligible students who meet the course prerequisite may join the waitlist.
- Students enrolled on a waitlist for a course section will be permitted to enroll in another section of the same course. Students currently registered for a course you will not be able to join the waitlist for another section for the same course.
- Students are permitted to join multiple waitlists for the same course. Students are only be eligible to enroll in one section for the same course.

the student will see a zero position "(0)" displayed next to the course registration number (CRN). The student will be given 48 hours from the date and time they become eligible to register in the class, or up to 11:59pm on the day prior to the first day of the class, whichever comes first. If the student does not register, they will be removed from the waitlist and the next student on the waitlist will be eligible to register in the open seat in the class. This process continues until all available seats are filled. It is recommended that students regularly monitor their waitlist status in their Sierra College email account and in mySierra under the "Registration and Classes" tab, and click on "View My Classes by Semester."

Students remaining on a waitlist once the class begins must attend the class. Students failing to attend the first class meeting may lose their places on the waitlist. Faculty who add students on the first and/or second day of class will give students on the waitlist first priority in the order in which the students are listed on the waitlist.

For more information, please contact Admissions and Records (https://www.sierracollege.edu/admissions/).

Add/Drop Period

Classes have class-specific add/drop deadlines. This information is published in the class schedule and may be accessed by clicking on the CRN (course reference number) and reviewing the "Critical Dates for this Course."

Registration is typically available during the first two weeks of the full-term fall and spring semesters and during the first week of summer session. Per-

mission to add must be obtained from the class professor. The professor supplies each student wishing to register in the course with an add code that allows the student to join the course through mySierra web registration or in person at a campus Admissions and Records office. All fees must be paid at the time of registration. Refer to the class schedule for registration details and deadline dates and times.

Students receiving financial aid must be enrolled in all classes by majority census, including late start classes. This date is known as Add/Drop. Please refer to Financial Aid for additional information.

Note: Under no circumstances will class registration be processed after the withdrawal deadline.

Cost of Attendance

The total cost of attendance (COA) is the amount (not including grants and scholarships) that it will cost you to go to school during the 2025-26 school year. COA includes tuition and fees; housing and food; and allowances for books, supplies, transportation, loan fees, and dependent care. It also includes miscellaneous and personal expenses, and reasonable costs for eligible study-abroad programs. The COA is a standardized estimate calculated by the government to approximate educational and living expenses. While each student's actual costs may differ significantly based on their personal circumstances, this figure serves as the baseline for determining financial aid eligibility and calculating financial need.

The cost of attendance varies based on California residency status. Students qualify as California residents if they have lived in California for over one year or have been admitted under AB 540 rules. Students who don't meet California residency requirements (or equivalent status) are considered nonresidents and must pay additional non-resident fees on top of the standard cost of attendance.

2025-26 Cost of Attendance for Nine Month Budget California Residents

Allowances	On-Campus	Off-Campus	With Parent
Tuition and Fees	$1,448	$1,448	$1,448
Books/Supplies	$1,560	$1,560	$1,560
Housing	$8,000	$23,085	$4,302
Food	$7,534	$7,534	$7,534
Transportation	$3,610	$3,610	$3,610
Misc./Personal	$3,285	$5,067	$4,410
Total	$25,437	$42,304	$22,594

2025-26 Cost of Attendance for Nine Month Budget Non-Residents

Allowances	On-Campus	Off-Campus
Tuition and Fees	$1,448	$1,448
Non-Resident Fees	$12,750	$12,750
Books/Supplies	$1,560	$1,560
Housing	$8,000	$23,085
Food	$7,534	$7,534
Transportation	$3,610	$3,610
Misc./Personal	$3,285	$5,067
Total	$38,187	$55,054

Payment Information

Fees and tuition are due at the time of registration. Students are given a 10 calendar day grace period, after which they may be dropped from classes for non-payment. Students registering for classes less than 10 days before the semester begins must have their accounts paid in full before the first day of the term. If there is an outstanding balance owed on the student account after the semester begins, a hold will be placed on the record and the account will be subject to collection. It is the student's responsibility to drop from courses they are no longer intending to take.

Fees and Holds

Students owing fees after the start of a semester will have holds placed on their records. Students with holds for unpaid fees, fines, tuition, etc., must clear the holds before any future registration will be permitted. Sierra College reserves the right to use methods permitted by law to collect fees due, including referral to a collection agency.

Enrollment Fee

Sierra College charges a State-mandated enrollment fee of $46.00 per unit each semester. Enrollment fees are established by the California State Legislature and are subject to change.

Recipients of CalWORKs, SSI/SSP, General Assistance, or qualified dependents of deceased or disabled veterans may be exempt from the enrollment fee. Check with the Financial Aid office prior to registration for fee credits, fee waivers, grants and other means of financial assistance.

Health Fee

The mandatory health fee provides enrolled students with a range of medical services at the Sierra College Health Centers. The health fee is charged as follows:

- $26.00 per semester for students enrolled in fall or spring semester class(es);
- $22.00 for students enrolled in summer session class(es)

Exemptions are given for:

- Recipients of California College Promise Grant fee waiver Type "A";
- Students enrolled exclusively in contract education classes, noncredit classes, or Public Safety In-Service Training classes;
- Students enrolled in the special admittance/concurrently enrolled high school students ;
- Students enrolled in the Ghidotti Early College High School Program;
- High school students enrolled in Career and College Access Pathways (CCAP) and Partnership for Advanced College Enrollment (PACE) courses;
- Students enrolled at the Tahoe Truckee Unified School District;
- Students exclusively auditing classes;
- Students who are dependent upon prayer for healing (contact The Health Center (https://www.sierracollege.edu/student-services/health-and-wellbeing/health-services/) for the exemption form prior to registration).

Instructional Materials Fee

Students may be required to provide instructional materials for a credit or noncredit course, or purchase such materials from Sierra College. Approved instructional materials and related fees are published in the class schedule. Instructional materials fees are collected at the time of registration.

Nonresident Student Tuition and Nonresident Capital Outlay Fee

Under state law, all community colleges are required to charge nonresident tuition to out-of-state residents and international students. The charge for the 2024-2025 catalog year is $414.00 per unit. Nonresident tuition is in addition to the enrollment fee.

State residency determinations for specific students, exceptions to residency determinations, and exemptions shall be determined in accordance with Education Code and Title 5. (Ed. Code Section 68000-68100, 68130.5, 76140 subd. (a)(4) & (a)(5)).

Contact Admissions and Records or visit our Fees and Expenses website (https://www.sierracollege.edu/admissions/costs/) for more information.

In addition to the enrollment fee and nonresident student tuition, nonresident students must pay a Nonresident Student Capital Outlay Fee of $25.00 per unit. Students wishing to apply for an economic hardship waiver must submit the completed paperwork to an Admissions and Records office.

Parking Fee

Every vehicle using the Rocklin, Nevada County, or Tahoe-Truckee campus parking facilities must display a valid parking permit, clearly visible through the driver-side, front windshield of the vehicle, or a valid DMV disabled person license plate or placard. Permits may be purchased through mySierra. Students receiving financial aid may be eligible to purchase a permit for a reduced fee. Contact a Financial Aid office for details.

Regular Semester Fee	
Standard Permit—Rocklin and Nevada County	$70.00
Standard Permit—Tahoe-Truckee	$50.00
Standard Permit—Financial Aid Eligible	$30.00
Carpool Permit	$35.00
Motorcycle Permit	$25.00
Summer Session	
Standard Permit—All Campuses	$34.00
Standard Permit—Financial Aid Eligible	$16.00
Carpool Permit	$15.00
Motorcycle Permit	$15.00

Daily permits are available for $3.00 per day at permit dispensers located in parking lots. There is no charge for parking from 4:00 p.m. Friday to 11:00 p.m. Sunday.

Parking permits are non-transferable. A parking permit does not guarantee that a parking space will be available. Citations will be issued to vehicles without permits and for violations of district policy and state law. For more information regarding parking fees, rules, or refunds, contact the Parking and Security Services office at (916) 660-7120, or visit the campus parking web page (https://www.sierracollege.edu/visit-sierra-college/parking/).

Student Body Photo ID Card/Activity Sticker

Students who have paid all registration fees are eligible for Student Body Photo Identification Cards. The cards are issued at the Rocklin Campus library, Nevada County or Tahoe-Truckee Campus Admissions and Records offices. Students are required to have the photo ID to check out materials at the Sierra College Library and to use the Mathematics Laboratory, Testing Center, and Instructional Laboratories. There is no fee for the ID card.

All students are automatically opted in, and pay $10 for the Associated Students of Sierra College (ASSC) Activity Sticker each Fall and Spring semester. Students have the option to opt out of the ASSC Activity Sticker during online class registration. The sticker, when affixed to the Student Body ID Card, provides several student discounts and access to certain campus programs. Contact the Rocklin Campus Life Office at (916) 660-7380 for further details on student discounts, including refund information.

Student Center Fee

The mandatory Student Center Fee is designated solely for the purpose of financing, constructing, enlarging, remodeling, refurbishing, and operating a student center. The fee, charged for the fall and spring semesters, is $1.00 per unit, to a maximum of $5.00 per semester.

The fee requirement shall not apply to students enrolled in the noncredit courses designated by Education Code Section 84757. The fee requirement shall not apply to a student who is a recipient of the benefits under the Temporary Assistance for Needy Families program, the Supplemental Security Income/State Supplementary Program, or the General Assistance program.

Student Representation Fee

In accordance with Assembly Bill 1504 – Student Representation Fee, all students are automatically opted in, and pay $2.00 at the time of registration for each semester and summer term. All students are offered an option to opt-out of paying the fee, without providing a reason, prior to being charged the fee. The money collected shall be used to provide support for governmental affairs representatives of local or statewide student body organizations who may be stating their positions and viewpoints before city, county, and district governments, and before offices and agencies of state government. For this fee, $1.00 of every $2.00 collected shall be expended to establish and support the operations of the Student Senate of the California Community Colleges (SSCCC), the statewide community college student organization recognized by the Board of Governors (BOG) of the California Community Colleges. The remaining $1.00 shall be used to support the local student body association.

The SSCCC is a 501(c)3 nonprofit charitable organization that provides students with opportunities to take an active role in higher education advocacy, policy development, and participatory governance. Title 5 §50002 grants students the right to participate in the development of those policies and procedures that significantly impact them and the SSCCC is the mechanism for students to participate statewide in policy development. The SSCCC is guided by the delegates from all California community colleges and is recognized as the official voice of the over 1.8 million students by the Board of Governors, legislature, governor, and other education stakeholders. The new funding source will provide the SSCCC with resources to provide greater sustainability, institutional memory, and transparency, as well as funds for student leadership and advocacy training.

Refunds

Enrollment, health and student center fees are refundable to students who are dropped or drop themselves from classes before census. Stu-

dents should refer to their printed student schedule/bill or the published class schedule, check their mySierra account, contact their professor or contact an Admissions and Records office. Note: Refunds are not issued to students who withdraw or are withdrawn from classes by their professors after the census day.

Nonresident Student Tuition is refundable for reduction of unit load if the student withdraws from full-semester classes during the first two weeks of a semester. Short-term classes have their own deadlines.

One-half of Nonresident Student Tuition is refundable if the student completely withdraws from Sierra College within the first six weeks of a semester, or the first two weeks of a summer session. This is not an automatic refund; students must submit a request to the Bursar's office.

All students receive a Refund Selection Kit after their initial registration in classes. For more information about BankMobile, click here (http://bankmobiledisbursements.com/refundchoices/).

Refunds are automatically processed two to three weeks after the semester begins. For more information, read the Refund Information article (https://www.sierracollege.edu/admissions/costs/refunds-disbursements/) on the website.

Parking Permit Refunds

Applications for refunds will be accepted during the first two weeks of a semester or the first three days of a summer session. Applicants must present their parking permit to a campus Parking and Security Services office along with a completed parking refund request form. Allow six weeks for the refund to be processed.

American Opportunity and Lifetime Learning Education Tax Credits

In accordance with the Taxpayer Relief Act of 1997, Sierra College mails Tax Form 1098-T at the end of January to each student who paid enrollment fees in the prior calendar year and was officially enrolled as of the course census date. This information is also provided to the IRS. It is the student's responsibility to provide proof of payment in accordance with IRS regulations. Please check with a tax preparer to determine if you are eligible for either of these tax credits or contact the IRS directly at (800) 829-1040 or at www.irs.gov (http://www.irs.gov). The records of students who have chosen an assigned identification number are not reported.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 5.

Student Enrollment and Attendance

Attendance

Regular attendance and participation in all classes are important student obligations. Attendance is an integral part of student success.

Attendance at First Class through Census Date

Students must attend the first scheduled meeting of each class in which they are enrolled or risk being withdrawn by the professor. Instructors shall clear their class rosters of inactive students no later than the end of the last day before the census day. Students who are dropped or drop themselves by the published, class-specific Add/Drop deadline are entitled to a refund.

Attendance During the Semester/Session

A professor has the right to withdraw any student who has accumulated excessive absences. Generally, excessive absences are defined as 10% of the total hours of class time or the equivalent of two weeks of a full-term class. The application of excessive absences may vary by department and/or instructor according to the demands of the curriculum. Any exceptions to this policy will be communicated to students by professors in the class syllabus. A student dropped by a professor in error may petition for reinstatement to the class. Following the Add/Drop deadline, students who choose to stop attending class(es) retain the responsibility of officially withdrawing themselves from the class(es).

Dropping and Withdrawing from Classes

Students may drop or withdraw from classes online through mySierra or in person at a campus Admissions and Records office. Students should refer to the general class schedule or their individual class schedule for specific drop and withdrawal deadlines.

Classes dropped by the Add/Drop deadline will not appear on the student's academic record. Classes have class-specific deadlines which can be found on the student schedule/bill, by checking mySierra, or by verifying with an Admissions and Records office. Instructors shall clear their class rosters of "no show" and inactive students no later than the end of the last calendar day before the census day. Students who are dropped or drop themselves by the add/drop deadline are entitled to a refund.

Classes withdrawn from after the add/drop period will appear on the student's record and cannot be removed. It is the student's responsibility to withdraw from classes that they do not wish to attend and to verify that they are no longer enrolled.

A student may withdraw up until the withdrawal deadline for the class. Students enrolled after the last day to withdraw will receive a grade for the class. Students are limited to receiving a "W" and/or a substandard grade ("D", "F", "NC", "NP") no more than three times for the same course. After the third such enrollment attempt, students will be blocked from additional enrollment. (Excused and Military withdrawals are not included in this limitation.) Please see Administrative Procedure 5075 (https://go.boarddocs.com/ca/sierra/Board.nsf/goto/?open&id=BSZURV7D4F98#) for more information.

Enrollment Status and Workload

To complete the average Associate degree (approximately 60 units) in two years, students should complete 30 units each academic year. However, for official enrollment verification purposes, students enrolled in 12 or more units per semester are considered full-time, students enrolled in 6-11.5 units are considered half-time, and students enrolled in less than 6 units are considered part-time.

For the summer session, 4 units is considered full-time; however, this does not apply in the determination of financial aid eligibility. Credit is not given for courses in which a student is not officially enrolled.

Students should expect to spend about 2 hours of time studying, reading, and completing assignments for each enrolled unit. For example, a student enrolled in 15 units should expect to spend about 30 hours per week outside of the classroom completing these activities.

Students may not enroll in more than 18 units without submitting an overload request. To be granted an overload of up to 20 units, a student must:

1. Have completed 12 or more units with a 3.0 GPA;

2. Not be on probation;

   a. Be eligible for ENGL C1000 and have met the reading competency.

If a student's GPA is 2.8–2.9 and all other requirements have been met, the student must have completed 30 or more college units.

Students wishing to enroll in 21 units or more, in addition to the above listed requirements, must have a minimum of 18 units completed, 15 of which must have been completed in a single semester, and obtain approval from a counselor and Dean of Enrollment Services.

Honors Courses

Many courses offered at Sierra College may, with the instructor's permission, be taken for honors credit. Students who are interested in a more challenging classroom experience may contract with a willing instructor for honors credit. Completion by a student of the honors contract together with an earned course grade of A or B will result in a notation on the student's transcript indicating that the course was completed "With Honors." For more information, visit the honors page (http://www.sierracollege.edu/student-services/support-programs/honors.php) on the website.

Illness or Emergency Leaves of Absence

Sierra College does not grant medical leaves of absence. Students who are absent for at least two consecutive weeks due to illness should obtain written documentation from their care provider to give to class professors. Regardless of illness, the student is responsible for all missed assignments and examinations.

Open Courses

It is the policy of Sierra College that, unless specifically exempted by statute, every course offered and maintained by the District shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites established pursuant to Title 5.

Overlapping and Multiple Course Enrollment

Students may not enroll in courses which meet at the same or overlapping time. Also, students may not enroll in more than one class section of the same course in the same semester or session. This is also true of courses designated as repeatable, unless the class sections don't have overlapping time frames.

Prerequisites, Corequisites and Advisories

It is the intent of Sierra College to guide students to courses in which they will have the greatest chance of academic success. Therefore, some courses listed in this catalog have either a prerequisite, a corequisite, or advisory preparation. If no prerequisite, corequisite or advisory information is indicated there are no conditions of enrollment. The following are the definitions for prerequisites, corequisites and advisory preparation:

"Prerequisite" means a condition of enrollment that students are required to meet in order to demonstrate current readiness for enrollment in a course or educational program. "C" is the designated minimum grade for prerequisite courses.

"Corequisite" means a condition of enrollment consisting of a course that students are required to simultaneously take in order to enroll in another course.

"Advisory" means a condition of enrollment that students are advised but not required to meet before or in conjunction with enrollment in a course or educational program.

Prerequisite Clearance Procedures

Students who have met a prerequisite in high school or at another college may submit transcripts for review and prerequisite clearance. All documents, including the Prerequisite Clearance form (available online), should be submitted to Placement and Testing Services, emailed to assessment@sierracollege.edu. Results are available within 3-5 business days after submission and are accessible online via mySierra.

Prerequisite/Corequisite Appeal Procedures

Any prerequisite or corequisite may be appealed by a student on one or more of the grounds listed below:

1. The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;

2. The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite has not been made reasonably available;

3. The student believes that the prerequisite or corequisite has been established in violation of regulations and/or the College's policy and procedures; or

4. The student believes that the prerequisite or corequisite is unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.

Prerequisite/Corequisite Appeal forms may be obtained at the following locations:

- Placement and Testing Services
- Counseling Centers
- Academic Division Offices.

The Prerequisite/Corequisite Appeal form must be submitted to the appropriate academic division office for the prerequisite/corequisite being appealed. The appeal will be reviewed within 5 working days, and the results will be accessible online via mySierra. If approved, the student will be permitted to enroll in the course.

Reference: Sierra College Board Policies/Administrative Procedures Chapters 4 and 5.

Transfer of Credit to Sierra College

Advanced Placement Examination

Sierra College accepts Advanced Placement (AP) examinations with scores of three or higher. Currently enrolled students may be awarded up to seven units of credit per examination. Credit is awarded for a Sierra College course or courses; as general education credit; or as elective credit.

Students automatically receive credit for AP examinations if official College Board Advanced Placement scores are sent to the College (Sierra College CEEB Code=4697). Grades are not assigned and the credit is not used in calculating grade point average. AP credit will not be used to alleviate a substandard grade.

If a student does not want credit, a written request asking that credit be removed from the transcript must be submitted to an Admissions and Records office.

Advanced Placement Examination (AP)

Students shall earn credit for Advanced Placement examinations for which scores of 3, 4, or 5 are earned. This table provides specific AP credit applicability for Sierra College, California State Universities (CSU), and Universities of California (UC), expressed in semester units.

Advanced Placement Examination	Course(s)	Sierra College			Transfer GE		CSU	UC
		Course Units	Sierra GE Area(s)	Total Units Granted	Cal-GETC and CSUAI Area(s)	Units for GE	CSU Minimum Admission Units	UC Minimum Admission Units
Art History	ARHI 110, ARHI 120	6	3	6	3A or 3B	3	6	5.3
Art Studio: 2-D Design	ART 2	3	3	3	N/A	N/A	3	5.3[2]
Art Studio: 3-D Design	ART 3	3	3	3	N/A	N/A	3	5.3[2]
Art Studio: Drawing	ART 4A	3	3	3	N/A	N/A	3	5.3[2]
Biology	BIOL 11	4	5 (w/lab)	4	5B and 5C	4	6	5.3
Calculus AB	MATH 30	4	A or D2	4	2	3	3[3]	2.7[3]
Calculus BC-score of 3 or 4 / Calculus BC-score of 5	MATH 30 OR MATH 31	4	A or D2 / D2	4	2	3	6[3]	5.3[3]
Calculus BC (AB Subscore)	MATH 30	4	A or D2	4	2	3	3[3]	2.7[3]
Chemistry-score of 3 or 4 / Chemistry-score of 5	XFER[1] OR CHEM 1A	5	A (w/lab)	5	5A and 5C	4	6	5.3
Chinese Language and Culture	XFER[1]	3	C	3	3B	3	6	5.3
Computer Science A	CSCI 10	3	N/A	3	N/A	N/A	3	1.3
Computer Science Principles	XFER[1]	3	D2	3	N/A	3	6	5.3
Economics: Macroeconomics	ECON 1A	3	B	3	4	3	3	2.7
Economics: Microeconomics	ECON 1B	3	B	3	4	3	3	2.7
English Language and Composition	ENGL C1000	4	D1	4	1A	3	6	5.3[4]
English Literature and Composition	ENGL C1000, ENGL 1B	4 / 3	D1 and D2 or C	4 / 3	1A or 3B	6	6	5.3[4]
Environmental Science	XFER[1]	4	A (w/lab)	4	5A and 5C	4	4	2.7
French Language and Culture	FREN 2	4	C	4	3B	3	6	5.3
German Language and Culture	GER 2	4	C	4	3B	3	6	5.3
Government and Politics: Comparative	POLS 2	3	B	3	4	3	3	2.7
Government and Politics: United States	POLS C1000	3	B	3	4 and US-2	3	3	2.7
History: European	HIST 4B	3	B or C	3	3B or 4	3	6	5.3
History: United States	HIST 17A, HIST 17B	6	B or C	6	3B or 4 and US-1	3	6	5.3
History: World	HIST 50	3	B or C	3	3B or 4	3	6	5.3
Human Geography	GEOG 2	3	B	3	4	3	3	2.7
Italian Language and Culture	ITAL 2	4	C	4	3B	3	6	5.3
Japanese Language and Culture	JPN 2	4	C	4	3B	3	6	5.3
Latin	XFER[1]	3	C	3	3B	3	6	2.7
Music Theory	XFER[1]	3	C	3	N/A	N/A	6	5.3
Physics 1	XFER[1]	4	A (w/lab)	4	5A and 5C	4	4[5]	5.3[5]
Physics 2	PHYS 10, PHYS 10L	4	A (w/lab)	4	5A and 5C	4	4[5]	5.3[5]
Physics C: Electricity and Magnetism	PHYS 110, PHYS 110L	5	A (w/lab)	5	5A and 5C	4	4[5]	2.7[5]
Physics C: Mechanics	PHYS 105, PHYS 105L	5	A (w/lab)	5	5A and 5C	4	4[5]	2.7[5]
Precalculus	MATH 29	4	D2	4	N/A	3	3	N/A
Psychology	PSYC C1000	3	B	3	4	3	3	2.7
Spanish Language and Culture	SPAN 2	5	C	5	3B	3	6	5.3
Spanish Literature and Culture	XFER[1]	3	C	3	3B	3	6	5.3
Statistics	STAT C1000	4	D2	4	2	3	3	2.7

[1] XFER indicates there is not a Sierra College course equivalent.
[2] UC credit for all Studio Art examinations is limited to 5.3 semester units.
[3] CSU limits credit for Calculus to one examination. UC credit for all Calculus examinations is limited to 5.3 semester units; students who take the Calculus BC examination and earn a subscore of 3 or higher on the Calculus AB portion will receive credit for the Calculus AB examination, even if they don't receive a score of 3 or higher on the BC examination.
[4] UC credit for all English examinations is limited to 5.3 semester units.
[5] CSU credit for all Physics examinations is limited to 6 semester units; UC credit for all Physics examinations is limited to 5.3 semester units.

Sierra College students will automatically receive the above-referenced AP credit if official scores are sent to the college. Grades are not assigned and the credit is not used in calculating the grade point average. Sierra College notifies students of the credit granted. AP exam credit will not be used to alleviate a substandard grade.
NOTE: Each campus in the California State University system and University of California system determines how it will apply AP examinations toward credit in the majors.

2025-26 AP Exam Chart
04/28/25 LC

Transfer students are cautioned that, regardless of Sierra College policy, some institutions determine Advanced Placement credit based on their own local policies and may recalculate credit. For further information please consult a counselor.

College-Level Examination Program (CLEP)

Sierra College accepts College-Level Examination Program (CLEP) examinations with minimum scores of fifty. Currently enrolled students may be awarded three units of credit per examination upon submission of official results. The exception to this is for examinations in languages other than English, as detailed in the following table. Credit is awarded as general education or elective credit.

Sierra College students automatically receive credit for CLEP examinations if official scores are sent to the College. Grades are not assigned and the credit is not used in calculating grade point average. Students are notified when credit is granted. If a student does not want credit, a written request asking that credit be removed from the transcript must be submitted to an Admissions and Records office.

For information on California State University (CSU) CLEP policies, please see the CSU Systemwide Credit for External Examinations page (https://calstate.policystat.com/policy/17947386/latest/#autoid-e77y7).

University of California (UC) campuses do not accept CLEP examinations.

CLEP cannot be used to satisfy Cal-GETC (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/).

Transfer students are also cautioned that, regardless of Sierra College policy, some institutions determine CLEP credit based on their own local policies and may recalculate credit. For further information please consult a counselor.

College-Level Examination Program (CLEP)
This table provides specific CLEP credit applicability for Sierra College.

College-Level Examination Program (CLEP)	Min Score	Total Semester Units Granted	Sierra GE Area(s)	Sierra GE Attribute	College-Level Examination Program (CLEP)	Min Score	Total Semester Units Granted	Sierra GE Area(s)	Sierra GE Attribute
American Government	50	3	4	AA4	Introduction to Educational Psychology	50	3	n/a	n/a
American Literature	50	3	3	AA3	Introductory Business Law	50	3	n/a	n/a
Analyzing and Interpreting Literature	50	3	3	AA3	Introductory Psychology	50	3	4	AA4
Biology	50	3	5	AA5	Introductory Sociology	50	3	4	AA4
Calculus	50	3	2	AA2	Natural Sciences	50	3	5	AA5
Chemistry	50	3	5	AA5	Pre-Calculus	50	3	2	AA2
College Algebra	50	3	2	AA2	Principles of Accounting	50	3	n/a	n/a
College Algebra - Trigonometry	50	3	2	AA2	Principles of Macroeconomics	50	3	4	AA4
College Composition	50	0	n/a	n/a	Principles of Management	50	3	n/a	n/a
College Composition - Modular	50	0	n/a	n/a	Principles of Marketing	50	3	n/a	n/a
College Mathematics	50	0	n/a	n/a	Principles of Microeconomics	50	3	4	AA4
English Composition (no essay)	50	0	n/a	n/a	Social Sciences and History	50	3	n/a	n/a
English Composition With Essay	50	0	n/a	n/a	Spanish, Level I[2]	50	6	n/a	n/a
English Literature	50	3	3	AA3	Spanish, Level II[2]	63	12	3	AA3
Financial Accounting	50	3	n/a	n/a	Spanish, Level II[2]	63	9	3	AA3
French, Level I[2]	50	6	n/a	n/a	Trigonometry	50	3	2	AA2
French, Level II[2]	59	12	3	AA3	Western Civilization I	50	3	3 or 4	AA3 OR AA4
French, Level II[2]	59	9	3	AA3	Western Civilization II	50	3	4	AA4
Freshman College Composition	50	0	n/a	n/a					
German, Level I[2]	50	6	n/a	n/a					
German, Level II[2]	60	12	3	AA3	Sierra College students will automatically receive CLEP credit if official scores are sent to the college. Grades are not assigned and the credit is not used in calculating the grade point average. Sierra College notifies students of the credit granted. If a student does not want credit, a written request asking that credit be removed from the transcript must be submitted to an Admissions and Records office.				
German, Level II[2]	60	9	3	AA3					
History, United States I	50	3	4	AA4					
History, United States II	50	3	4	AA4					
Human Growth and Development	50	3	n/a	n/a					
Humanities	50	3	3	AA3					
Information Systems and Computer Applications	50	3	n/a	n/a					

International Baccalaureate Examination

Sierra College accepts International Baccalaureate (IB) Higher Level examinations with minimum scores of four or five, depending on the exam. Currently enrolled students may be awarded three units of credit per examination upon submission of official results. Credit is awarded as general education credit.

Sierra College students automatically receive credit for IB examinations if official scores are sent to the College. Grades are not assigned and the credit is not used in calculating grade point average. Students are notified when credit is granted. If a student does not want credit, a written request asking that credit be removed from the transcript must be submitted to an Admissions and Records office.

Transfer students are cautioned that actual IB transfer credit (including possible differences in units to be awarded beyond those used for Cal-GETC certification) awarded for these and other IB exams at admission is determined by the CSU and UC.

Please see

The UC Policy for IB Credit (https://admission.universityofcalifornia.edu/admission-requirements/ap-exam-credits/ib-credits.html)

or

The CSU Systemwide Credit for External Examinations page (https://calstate.policystat.com/policy/17747386/latest/#autoid-e77y7)

International Baccalaureate (IB)
Students may earn credit for International Baccalaureate Diploma or Certificate for which scores of 4 or 5 are earned. The following table provides specific credit applicability for Sierra College, California State Universities (CSU), and Universities of California (UC), expressed in semester units.

	Sierra College			Cal- GETC			Sierra College			Cal- GETC	
International Baccalaureate (IB)	IB Score	Sierra GE Area(s)	Total Units Granted	Cal-GETC and American Institutions Area(s)	Semester/ Quarter Units for GE	International Baccalaureate (IB)	IB Score	Sierra GE Area(s)	Total Units Granted	Cal-GETC and American Institutions Area(s)	Semester/ Quarter Units for GE
Biology HL	5	5	3	5B	3/4	Mathematics HL	4	2	3	2	3/4
Chemistry HL	5	5	3	5A	3/4	Physics HL	5	5	3	5A	3/4
Economics HL	5	4	3	4	3/4	Psychology HL	5	4	3	4	3/4
Geography HL	5	4	3	4	3/4	Theatre HL	4	3	3	3A	3/4
History (any region) HL	5	3 or 4	3	3B or 4**	3/4	Sierra College students will automatically receive credit for International Baccalaureate Diploma or Certificates if official scores are sent to the college. Grades are not assigned and the credit is not used in calculating the grade point average. Sierra College will notify the students of the credit granted. If a student does not want credit, a written request asking that credit be removed from the transcript must be submitted to an Admissions and Records office.					
Language A1 (any language) HL	4	3	3	3B	3/4						
Language A2 (any language)	4	3	3	3B	3/4	*The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.					
Language A Literature HL	4	3	3	3B	3/4						
Language A Language and Literature HL	4	3	3	3B	3/4	* *IB exam may be used in either area regardless of where the certifying CCC's discipline is located.					
Language B (any language) HL*	4	N/A	0	6A	3/4						

International Transcript Acceptance

Students wishing to receive credit at Sierra College for courses completed at an international institution must request and pay for an evaluation of their international transcript(s) through a current member of one of the following:

- Association of International Credential Evaluators, Inc. (AICE) (http://www.aice-eval.org/)
- National Association of Credential Evaluation Services (NACES) (https://www.naces.org/members/)

The evaluation must include a course by course review which determines semester unit value, grade and lower/upper division status. In most cases, students are granted elective credit only for lower division course work completed at international institutions. No credit is granted for upper-division courses. Students wishing to be granted credit for specific Sierra College general education/learning skills or major courses must submit course descriptions in English with course substitution petitions.

International coursework from non-United States regionally accredited institutions cannot be used to meet California State University General Education-Breadth requirements, Intersegmental General Education Transfer Curriculum requirements, and Associate Degree for Transfer requirements. Although international courses may be accepted by four-year universities, evaluation of such courses is determined independently by each transfer institution.

Military Service Credit

A veteran who was on active duty one year or longer and received an honorable discharge may request that 5 units of military training credit be applied to the Health Education/Physical Education associate degree requirement. Credit has no bearing on the student's GPA and may not transfer to a four-year university. To request credit, students must submit a copy of their DD-214 to an Admissions and Records office or the Veterans Resource Center. Students must submit an application for admission before military credit may be awarded.

Veterans receiving VA educational benefits through the Sierra College Veterans Resource Center must apply for military credit by the end of their second semester of enrollment, regardless of the number of units completed at Sierra.

Transcripts from Other Colleges and Universities

Sierra College accepts official transcripts from United States institutions that are accredited by one of the following accrediting organizations (formerly known as Regional Accrediting Organizations):

- Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges
- Higher Learning Commission (HLC)
- New England Commission of Higher Education (NECHE)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- WASC Senior College and University Commission (WSCUC)

Transcripts are evaluated for acceptance of all lower-division degree-applicable credit courses. Once an official transcript is received, it becomes the property of Sierra College. Qualifying transcripts shall become part of the student's permanent academic record. Appropriate units and subject content will be applied to major and general education areas to meet Sierra College graduation requirements and may not be removed. When course repetition occurs, the last grade and credit earned from an accredited institution will be included in the computation of the grade point average. Students should meet with a counselor to determine which courses fulfill Sierra College's degree and/or certificate requirements.

To ensure timely and accurate posting of transfer courses, students should submit their sealed official transcript(s) to a campus Admissions and Records office early in the application process. A Transfer Credit Request should also be submitted.

Transfer credit is also used to fulfill prerequisite requirements.

High School Articulation

High school articulation is a collaborative process linking curriculum between institutions to assist students in making smooth transitions from secondary to postsecondary levels without experiencing delays or duplication of learning. High school articulation agreements have been developed with many area high school and ROP programs which make it - possible for students to gain college credit for specified courses once they have enrolled at Sierra College.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 4.

Student Services and Support

- Financial Aid (p. 291)
- Student Services and Resources (p. 294)
- Student Activities (p. 299)

Financial Aid

Sierra College's Financial Aid programs stem from a belief that student aid services should facilitate and foster the successful academic participation of financially needy students. As part of the commitment to help students have a positive college experience, the Financial Aid Office provides this information to help students better understand their relationship with financial aid.

State and federal regulations allow community colleges participating in financial aid programs discretion when establishing college specific policies and procedures. Financial Aid will only be provided for those course in a student's declared major. It is the goal of the Financial Aid Office to provide students with the most current policy information affecting their financial aid while at Sierra College. As new state or federal regulations take effect or college practices evolve, this policy will be updated and posted on the website.

The main financial aid office is located at the Rocklin campus; for information call (916) 660-7310. For assistance at the Nevada County campus, call (530) 274-5346. You may also contact Financial Aid by email at financialaidquestion@sierracollege.edu.

Application Process

To apply for financial aid, all students must complete a Free Application for Federal Student Aid (FAFSA) or California Dream Act (CADAA). The FAFSA and CADAA use federal formulas to establish financial need. Sierra College's Federal School Code is 001290.

Who Should Apply

Any student who plans to attend Sierra College and is either a citizen or an eligible non-citizen of the United States may apply for federal financial aid. All financial aid recipients must maintain the Financial Aid Satisfactory Academic Progress standards of the College.

Priority Dates

Some financial aid funds are limited. Therefore, Sierra College has established a priority filing date of March 2. Students whose FAFSAs are completed by this date are considered for all financial aid programs available at Sierra College. Those filed after March 2 will typically only be considered for a California College Promise Grant, Pell Grant and/or a Direct Student Loan. The FAFSA should be filed as soon as possible to assure availability of funds when registration fees are due.

Document Requirements

A set of federally-defined criteria identify those students who must provide documentation to support information reported on the FAFSA. This selection is referred to as "Verification." Students selected for Verification will be notified by the Federal Processor and the Financial Aid Office via the students' mySierra accounts, and will be asked to verify income and other information. Non-U.S. citizens will also be asked to show proof of eligibility.

California Dream Act

Sierra College participates with the California Dream Act to help determine financial aid eligibility for students admitted under AB 540 regulations. The California Dream Act application may be completed at https://dream.csac.ca.gov/.

Academic Year

Academic programs are calculated in units and measured by semesters. Sierra College has established two 16-week semesters (fall and spring), and one 8-week summer session per academic year. This meets the federal 30-week minimum academic year definition.

This definition is important for financial aid purposes because it affects calculation of payment periods. Sierra College makes financial aid payments based on the semester rather than by weeks or classes attended.

Financial Aid Programs

When students apply for financial aid, the funds usually come from more than one source (federal, state, private, etc.). This combination of financial resources is referred to as packaging. State programs are always subject to an approved State budget.

Sierra College participates in the following financial aid programs:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study
- William D. Ford Federal Direct Loan Program
- California College Promise Grant (CCPG) (Formally BOGFW)*
- Cal Grant B and C, as well as Cal Grant A "student with a dependent stipend"
- Extended Opportunity Programs and Services (EOPS) Grants
- Chafee Grant for Foster Youth
- CARE Grants
- TRiO Grants
- NextUp (CAFYES)
- Student Success Completion Grant
- Scholarships
- Promise Grant (AB19/AB2)
- Basic Needs Emergency Assistance

*CCPG is awarded based on the results of the financial aid application and academic standing that is posted by Admissions and Records.

For more information on Financial Aid programs offered by Sierra College, please see the website (https://www.sierracollege.edu/student-services/financial-aid.php).

Pell Grant Lifetime Maximum

Effective fall 2012, students can only receive Pell Grants for 6 years or 12 semesters of full-time enrollment at all 2 and 4 year schools across the nation. Sierra College defines full-time enrollment as 12 or more units. Students enrolled less than full-time will have their lifetime eligibility adjusted accordingly. The maximum students can use in a lifetime is 600%. Students planning to complete a program and/or transfer within two years must complete 30 units per year or 15 units per semester.

California College Promise Grant (CCPG)

The California College Promise Grant (CCPG), previously known as the BOG Fee Waiver, is a state-sponsored program that waives enrollment fees ($46/per unit) for qualifying students. Eligibility for CCPG is possible even if other forms of financial aid are unavailable. Applicants are strongly encouraged to apply for financial aid by completing either the Free Application for Federal Student Aid (FAFSA) or the California Dream Act Application (CADAA).

To apply for the CCPG, applicants who are U.S. citizens or eligible non-citizens should complete the FAFSA. Those who do not meet citizenship criteria but meet the AB540 residency requirements should complete the California Dream Act Application to determine eligibility.

Attention Students

The California College Promise Grant covers the enrollment fee of $46 per unit and parking fees exceeding $20 per semester (excluding summer and short-term parking permits). Before registering for classes, students should check their MySierra account to confirm CCPG approval status. It's important to note that the CCPG does not cover the state-mandated $19 Health Fee, and neither Method B nor Method C of CCPG cover the $2 per unit Student Center Fee. Failure to pay outstanding fees at the time of class enrollment may result in being dropped from classes.

Important Information About The California College Promise Grant

California Community College students who receive the California College Promise Grant (CCPG) must meet minimum academic and progress standards to remain eligible. Students who are on academic/progress probation/dismissal for two consecutive semesters will lose CCPG eligibility the following term.

What does that mean? It means students must maintain a cumulative GPA of 2.0 or higher and successfully complete over 50% of attempted units. Notification of placement on academic (GPA) probation and/or progress probation will be sent via email after all official grades are posted. The notification will clarify if CCPG eligibility, registration priority, or both will be forfeited.

The Financial Aid Office offers a variety of workshops each semester covering financial aid topics, including CCPG. Please visit our website for upcoming workshop dates.

For additional information regarding CCPG please visit the website (https://www.sierracollege.edu/admissions/paying-for-college/financial-aid/fee-waiver-ccpg/) for additional information.

Financial Aid Satisfactory Academic Progress (SAP)

Federal regulations require that all financial aid recipients make financial aid satisfactory academic progress and remain in good academic standing. At Sierra College, academic progress is reviewed at the end of each semester. Additional information about SAP is located on the website (https://www.sierracollege.edu/student-services/financial-aid.php).

Determining Enrollment Status

Prior to each financial aid disbursement, the Financial Aid office verifies the number of units in which students are enrolled. For Fall 2024, students must be enrolled in all units by September 1, 2025. For Spring 2025, students must be enrolled in all units by February 08, 2026.

Enrollment status is defined as the number of units in which a student is enrolled at the final disbursement for the semester. Completed units mean that credit was received for the enrolled classes. Classes in which a student receives an "F," "I," "NP," "MW," "EW", or "W" are not counted as completed units for satisfactory academic progress, but are counted as units attempted.

To be considered as making satisfactory progress, students must complete 67% of all enrolled courses with a 2.0 cumulative GPA. Units earned through credit by examination are not counted for financial aid purposes.

Maximum Time Length and 90 Unit Limitation

Federal regulations allow students to receive aid for 150% of the published length of an undergraduate program. Because students can earn a degree by completing 60 units, students may receive aid for a maximum of 90 units, including accepted transfer units. Up to 30 units of remedial coursework, including ESL courses, are deducted. Students terminated from financial aid due to the maximum unit limit may appeal to the Financial Aid Office.

Students who have earned an associate degree, bachelor's degree, or certificate must appeal to receive additional aid.

Repeated Coursework

Repeated coursework that falls under the following conditions cannot be included in enrollment status for Title IV Federal Aid eligibility:

- Repeating a previously passed course more than twice. A grade of D or better is considered passing.
- Repeating a previously passed course due to failing other coursework.

Remedial (including ESL) Coursework

Remedial and ESL courses are considered the same as credit courses for tuition, full-time academic standing, and SAP, and are included in the 67% completion requirement. Financial aid may be paid for a maximum of 30 remedial units.

Transfer Units

It is the student's responsibility to request transcripts from previously attended institutions if choosing to apply any units toward the current educational objective. Upon the student's request, transcripts from regionally accredited colleges will be evaluated and all transfer units will be counted when calculating the maximum time length for financial aid. All units attempted, even if earned before the student was receiving financial aid will be considered toward the maximum time length.

Definitions

Good: Students are considered in good standing if they complete at least 67% of all enrolled units and earn a 2.0 GPA or higher for the semester.

Warning: Students are placed on warning status if they complete less than 67% of all enrolled units for the semester. Students are removed from warning at the end of the next semester if they complete at least 67% of their units with a 2.0 GPA.

Termination: Students are terminated if they were on warning from a previous semester and then completed less than 67% of the courses for which aid was provided or if their cumulative GPA was less than 2.0.

Probation: Students are placed on probation if they receive an approved reinstatement petition. Students may continue on probation if their cumulative GPA is below 2.0 but their term GPA is above 2.0. This is considered making progress term-by-term. Students may be removed from probation if they complete at least 67% of their units and achieve a cumulative GPA of 2.0. Students placed on maximum unit probation may receive federal student loans.

67% Completion Rate: Students must pass at least 67% of their coursework each semester.

Financial Aid Course Requirements (CPoS):

The U.S. Department of Education requires that institutions ensure financial aid funds are used to pay for courses that apply to a student's educational plan.

Disbursement of federal and state financial aid programs (i.e., Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Work-Study, student loans, Cal Grants, Success Grant, etc.) will be based on coursework that counts toward the program of study. All students must be in the correct major, and all courses must be reflected within Degree Works and the Student Education Plan (SEP) by majority census (add/drop).

State aid like the California College Promise Grant (CCPG) or the Sierra College Promise Grant, which waives course fees for eligible California residents, is not subject to the same regulatory restrictions.

Financial Aid Termination: Students exceeding their maximum time length (90 attempted units), not completing the required number of units, or earning a cumulative grade point average of less than 2.0 may be terminated from financial aid. Students terminated because of insufficient units completed or a GPA deficiency will not receive further financial aid until they have filed and received an approved Reinstatement Petition.

Appeal Procedures: Any student who has been terminated from financial aid may submit an appeal to the Financial Aid Office. Students will need to complete the appeal within Campus Logic and upload all supporting documents. Appeals are reviewed and approved or denied based on individual circumstances and the student's proposed course of action. If approved, financial aid may only be provided for courses listed within Degree Works and on the Student Education Plan. If an appeal is denied, the appeal will automatically be sent for second review for a final determination.

Students reaching the maximum time length of 90 units attempted may submit a written appeal to the FAAC. If approved, financial aid will be given for a specific length of time.

Financial Aid Disbursement and Refunds

All financial aid is refunded to students through the Business Office. Financial aid funds will first be used to satisfy any student debt owed to Sierra College. Any remaining balance goes directly to the student by the refund preference selected by the student through BankMobile. For more information about BankMobile, click here (http://bankmobiledisbursements.com/refundchoices/).

The first refund of financial aid (grants, federal student loans, and scholarships) to eligible students is the week following the add/drop period. For the fall and spring semesters, this is the end of the third week of the semester. For students who apply or complete their files after the third week, financial aid is usually ordered once a week. Orders are processed Monday mornings and direct deposit is normally completed by Thursday evening of the same week.

Pell Grants must be paid at the level of units in which students are enrolled at the end of the add/drop period for the semester. Students adding a class after the add/drop deadline will not receive Pell funds for the additional units to include any late start classes.

Federal Direct Student Loans are issued in two refunds. If a student loan covers fall and spring, the second refund will be available the third week of the spring semester, as long as the student is eligible and enrolled in 6 or more units. If the student loan covers only one semester, the second refund will be available after the withdrawal deadline has passed, as long as the student is still enrolled in 6 or more units.

Students who are first-time, first-year borrowers must wait until 30 days after the semester has begun to receive their first refund.

Scholarships are issued in two refunds; half for fall and half for spring.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 5.

Student Services and Resources

Basic Needs Center

The Basic Needs Center aims to bring together support and resources to assist students with unmet needs in a centralized location. Primary services include food and housing assistance, connection to public benefits, emergency financial assistance, and resources for parenting students. The Rocklin Campus Food Pantry is located in the Basic Needs Center. For more information, contact the center at (916) 660-7595, email basicneeds@sierracollege.edu, or visit the website (https://www.sierracollege.edu/basicneeds/).

For information about the food pantry at the Nevada County Campus, please call (530) 274-5303.

Bookstores

The Sierra College bookstores are committed to providing the highest quality service to meet the needs of students, faculty, staff and the community of Sierra College.

Textbooks for classes at all campuses may be ordered online at the bookstore web page (http://sierra.bncollege.com). Sierra College merchandise, including t-shirts, sweatshirts, and Wolverine gift items may also be ordered online. Refund/return policy information is available at any location.

Selling Books

Books may be sold back at any time for up to 50% of the original selling price. The best time to sell is at the end of each semester when the bookstore purchases textbooks for the upcoming term. A Sierra College Student Body ID is required. No receipt is necessary and it doesn't matter where the books were purchased. Instructor and international editions cannot be sold.

Tahoe-Truckee Campus Bookstore Services

Books for Tahoe-Truckee classes are available at the Rocklin Campus Bookstore or can be ordered online. Orders for Tahoe-Truckee students must be shipped to the customer street address (no P.O. Boxes) or picked up at the Rocklin campus. For further information call (916) 660-8200.

Cafeteria/Campus Dining

The Rocklin campus provides hot and cold items in the cafeteria and has a variety of snack and beverage vending machines. The Nevada County campus provides hot and cold items in the café Monday through Thursday, limited hours, during fall and spring semesters only, and has snack and beverage vending machines. The Tahoe-Truckee campus and Roseville Center have snack and beverage vending machines available. Please check the Sierra College website (https://www.sierracollege.edu/student-services/campus-services/food-drink.php) for current services and hours of operation.

CalWORKs

The CalWORKs program provides support services focused on helping students who receive Temporary Assistance for Needy Families (TANF)/cash aid to achieve their educational and career goals. This program aims to help qualifying students obtain the necessary education and skills to begin and enhance their careers and to achieve long-term economic self-sufficiency. Services provided to eligible students includes counseling, work study opportunities on-campus, assistance with campus services and referrals to public and private agencies as needed. For questions and eligibility information, students may contact the Sierra College CalWORKs office at (916) 660-7367 for the Rocklin campus, or (530) 274-5306 for the Nevada County campus. The Sierra College CalWORKs program is not part of the Department of Human Services.

Career and Transfer Connections

Career and Transfer Connections provides an array of resources tailored to support students in navigating their career, internship, and transfer endeavors. Our services include assistance in exploring potential career paths, creating resumes and cover letters, conducting effective job searches, obtaining academic credit for internships, learning important job readiness skills, and developing essential professional skills. We also assist students aspiring to transfer to institutions within the California State University (CSU) system, the University of California (UC) system, and private or out-of-state colleges/universities. Transfer services include assistance with the transfer application process, facilitating connections with college/university representatives, and furnishing transfer-related resources and information.

For more information, visit the Career and Transfer Connections website (https://www.sierracollege.edu/student-services/career-transfer-internship/), email ctc@sierracollege.edu, or call 916-660-7481.

Child Development Services

Sierra College partners with several educational agencies to provide child development programs for college students and the local community. Sierra College Child Development Centers serve as teacher training lab sites for Sierra College students who are pursuing careers working with children and families. All centers are staffed by certificated, nurturing teachers who view learning as an active, engaging process that provides ample opportunities for exploration, hands-on experiences, and decision-making in a content rich setting.

Sierra College, in partnership with the Placer County Department of Education, Early Childhood Education Department, offers State Preschool programs at no cost to income eligible families. These programs, serving 3-5 year-olds, are offered on the College's Rocklin Campus, the "Little Blue House" in Lincoln and at Rock Creek Elementary School in Auburn. State Preschools operate a three-hour morning and three-hour afternoon session, with full-day options at Rock Creek.

The Sierra College Nevada County Campus Child Development Center, in partnership with the Nevada County Superintendent of Schools, offers two programs at no cost to income eligible families. The State Preschool/Head Start program is offered for seven hours a day, and the toddler program for 18–36 month-olds is offered year round with full-day care.

For hours of operation and further information, contact the following:

- Placer County Office of Education, Early Childhood Education: (530) 745-1380
- Nevada County Campus Child Development Center, Grass Valley: (530) 274-5350

Community Safety

The District Department of Community Safety is located on the first floor of the N1 building on the Rocklin campus. Parking and Security Services at the Nevada County campus is located in the N1 building. Security Officers are responsible for enforcing parking regulations, responding to emergencies, locking/unlocking facilities, providing public assistance, and providing security escorts. Information regarding security policies and campus crime

statistics, as required by the Clery Act, is available on our website (https://www.sierracollege.edu/visit-sierra-college/security/).

Dial 911 for an emergency, or dial extension 7120 for a non-emergency, from any of the help phones located throughout the Rocklin and Nevada County campuses. To contact the Rocklin office from non-campus phones, dial (916) 660-7120. The Nevada County Campus Office of Community Safety may be reached by calling dispatch at (916) 660-7120. Please state that you are calling from the Nevada County Campus.

Cooperative Agencies Resources for Education (CARE)

The CARE program provides services for those EOPS students who are at least 18 years old, single parent or head-of-household, and receiving CalWORKs/TANF cash aid for self and/or dependent child.

In addition to the services provided by EOPS, CARE students may receive an extra financial aid grant to be used for educationally related expenses such as child care, textbooks/school supplies, and transportation. Contact the Rocklin EOPS office at (916) 660-7366, or the Nevada County EOPS office at (530) 274-5306 for further information and application assistance

Counseling Services

Sierra College counselors provide academic advising, career, transfer, personal, and crisis counseling to students. Typical areas of concern to students are choosing majors or careers that are appropriate to their interests, abilities and values; coping with personal problems that may be causing stress; and selecting courses in the proper sequence to meet requirements and educational goals. Counselors also teach classes designed to facilitate personal growth, college success and career exploration. See the Personal Development department in this catalog.

In-person counseling is available by appointment and on a drop-in basis at each of the following locations. For appointment information call:

Rocklin Campus (916) 660-7400
Nevada County Campus (530) 274-5303
Tahoe-Truckee Campus (530) 550-2225

For more information or to book an appointment online, click here (https://www.sierracollege.edu/student-services/counseling/).

Distance Learning Courses

Distance learning courses are full-credit courses which allow students to complete college studies from the convenience of their own home. These courses are especially appealing to students with busy schedules who have a difficult time coming to campus on a regular basis. Online courses may be accessed from anywhere at anytime through an Internet connection. Instructors typically distribute course content on a weekly basis and require students to maintain a high level of interaction throughout the course. Hybrid and HyFlex courses are a combination of online and on-ground formats.

State Authorization (Out-of-State Policy for Online Courses)

The United States Department of Education regulation 4 C.F.R.§ 600.9 © requires each state to apply for and receive authorization to provide online/distance education programs to out-of-state students. In order to maintain compliance, students living outside of California or Nevada, based on their mailing address AND physical presence, are prohibited from taking online classes at Sierra College.

Distance learning support is located in the Learning Resource Center on the Rocklin campus, in the Library/Learning Commons at the Nevada County campus, and in the library on the Tahoe-Truckee campus. For more information, please visit the Distance Learning website (https://www.sierracollege.edu/academics/distance-learning/).

Extended Opportunity Programs and Services (EOPS)

EOPS is a student success program that provides access to a college education and assistance with reaching an educational/career goal for those individuals affected by language, economic and social disadvantages. Eligible students may receive academic, career and personal counseling, specialized orientation, free tutoring, financial aid assistance, priority registration, help with the cost of books, transportation assistance, cafeteria meal cards and other services designed to support the student to stay in school and achieve their goals. Prescriptive/comprehensive Student Educational Plans (SEP) are developed for each EOPS student as part of the specialized counseling services provided by the program.

Students must meet certain income and educationally disadvantaged criteria to receive services. Contact the Rocklin EOPS office at (916) 660-7366, the Nevada County EOPS office at (530) 274-5306, or go to the EOPS web page (http://www.sierracollege.edu/student-services/support-programs/eops.php) for further information.

Guardian Scholars

The Guardian Scholars program provides services to current or former foster youth attending Sierra College. The program's goal is to equip and empower students to succeed academically, through services that include counseling, textbook assistance, on-campus housing, care packs, college transfer assistance, as well as helping students navigate the many life and financial challenges that are barriers to their success. Contact the Rocklin GSP office at (916) 660-7366, the Nevada County GSP office at (530) 274-5306, or go to the GSP web page (https://www.sierracollege.edu/student-services/support-programs/guardian-scholars.php) for further information.

Health Services

Sierra College Health Centers offer a wide variety of services. Nurse practitioners, licensed therapists, and a physician staff the clinics. Students are encouraged to utilize these services, which include:

- Education about healthy living and disease prevention
- Evaluation and treatment of students, who are ill, injured or need family planning
- Referrals to on-campus and community resources
- Laboratory testing
- Mental health therapy
- Immunizations
- Physical examinations.

Students must be registered in and actively attending classes to be eligible for services at a health center.

The Rocklin Campus Health Services Clinic is located in the Winstead Center. For further information call (916) 660-7490.

The Nevada County Campus Health Services Clinic is located in N3-101. For further information call (530) 274-5317.

Housing

Sierra College is one of the few community colleges in California that offers the unique experience of residence hall community living on the Rocklin campus. For Fall 2025, Sierra College will continue to operate the current North Hall building, a two-story co-ed residence hall with 121 students living in double occupancy rooms. Two double rooms share a bathroom. The residence offers facilities such as a large recreation room, kitchenette, and laundry room. Basic utilities are included as well as a meal plan for use in the cafeteria and select restaurants off-campus. In-room telephones and cable services are not included. In Spring 2026, Sierra College will open a new three-story student housing complex, which will provide housing for 358 students. The new building will be centrally located on campus and will offer services and amenities that encourage student participation in campus life and events. The project is funded by the State of California's Affordable Student Housing grant program. The monthly rent for most students will be considerably below the local market rate. Additional information is available on the website or by calling (916) 660-7389.

Library & Learning Commons

The Library and Learning Commons, provides a myriad of free academic services including technology help, textbook reserves, and research and writing consultations and assistance. Within the space, students can take advantage of a computer lab and printing, as well as collaborative working spaces, group study rooms, and quiet study areas. The library collection consists of over 85,000 print and 200,000 electronic books, and free around-the-clock access to magazines, journals, newspapers, streaming films, and eBooks through subscription databases. Librarians are available to assist students in-person and online with research questions including navigating library resources, evaluating source credibility, and refining topics and searches. The library website (https://www.sierracollege.edu/library/) also offers online research guides and information literacy tutorials.

The Rocklin Campus Library and Learning Commons, located on the second and third floors of the Learning Resource Center, has a Writing Center, family friendly study room, podcasting equipment, video cameras, greenscreens, and other loanable technology.

The Nevada County Campus Library and Learning Commons, located in N6, houses the Tutor Center, Writing Center, anatomy models, a zine library, podcast equipment, and other loanable technology.

The Tahoe-Truckee campus provides a range of library services in the Learning Center.

NextUp (CAFYES)

NextUp, also known as CAFYES (Cooperating Agencies Foster Youth Educational Support) provides enhanced support and services to eligible current and former foster youth attending Sierra College. The additional services may include:

- Housing Assistance Grant
- Monthly NextUp (CAFYES) Grant
- Emergency Shelter Assistance
- Additional funds to buy required textbooks/materials
- Additional funds to buy school supplies
- Monthly Disbursements of: Grocery Food Cards, Meal Cards, Gas Cards or Bus Passes

- Transportation Assistance
- Specialized Counseling and Supportive Success Coach-Advocate

Contact the Rocklin NextUp office at (916) 660-7366, the Nevada County NextUp office at (530) 274-5306, or go to the NextUp web page (https://www.sierracollege.edu/student-services/support-programs/guardian-scholars.php) for further information.

On-Campus Student Jobs

The Financial Aid offices at the Rocklin and Nevada County campuses assist currently enrolled Sierra College students in obtaining part-time jobs on campus. Currently, the college offers three on-campus employment programs. These are:

- Federal Work Study—Students must qualify under Federal guidelines by completing the FAFSA, be enrolled in at least six units, and maintain a 2.0 GPA.
- District Student Help—This program is to assist students who do not qualify for Federal Work Study. Students must be enrolled in at least six units and maintain a 2.0 GPA.
- CalWORKs Work Study—Students must be currently receiving TANF or CalWORKs Assistance.
- Learning Aligned Employment Program (LAEP) - A California Work Study initiative designed for underrepresented students. To qualify, students must be enrolled in a minimum of six units, maintain satisfactory academic progress, and hold California residency. LAEP offers participating students placement in positions that align with their area of study.

All programs pay on the student employee wage scale. Each program has special enrollment and academic requirements.

For further information regarding these programs, contact the Rocklin campus Financial Aid office at (916) 660-7310 or the Nevada County campus Financial Aid office at (530) 274-5346.

Placement and Testing Services

The Placement and Testing Services Center provides course placement, prerequisite clearance and make-Up testing.

The center serves all Sierra College students and provides accommodations for students with disabilities.

For further information please visit the testing web page (https://www.sierracollege.edu/student-services/placement-testing/).

Puente Program

Puente (Spanish for bridge) is a national model for student success and has provided tens of thousands of California students with the support to make college a reality. Students achieve success by graduating from Sierra College, enrolling in four-year colleges and universities, earning degrees, and eventually returning to the community as leaders and mentors to future generations. The Puente learning environment offers support in which students work one-on-one with a Counselor, English professor, and mentor to prepare for transfer. Coursework and cultural enrichment activities are included throughout the program and focus on the cultural experiences of the Mexican American/Latinx community. The Puente Program is open to all students and is co-sponsored by the University of California and the California Community College Chancellor's Office. More information is available on the Sierra College website (https://www.sierracollege.edu/student-services/

support-programs/puente/) or by contacting the Counseling department at (916) 660-7400.

Rising Scholars Program

The Sierra College Rising Scholars Program, a member of the California Community College Chancellors Office Rising Scholars Network, is dedicated to fostering the academic, personal, and professional success of justice-involved and justice-impacted students. The program specifically supports students enrolled in Dual Enrollment, Academic Enrichment, part-time/full-time students residing at Auburn Juvenile Hall, and high school students attending the Placer County Office of Education's Alternative High School, iCARE.

Rising Scholars offers a range of services designed to help students navigate their educational journey, including personalized assistance with enrollment and financial aid processes, as well as support in identifying and accessing relevant college programs and services. The program is committed to assessing individual needs and connecting students to Sierra College resources that support their success.

Located on the Rocklin campus, program staff are available to provide guidance and support. For more information or to connect with the Rising Scholars Program, email risingscholars@sierracollege.edu.

Sierra Promise

Sierra Promise is a commitment to provide local high schools students the opportunity to go to college. Students are encouraged to complete a FAFSA or California Dream Act Application, register for the maximum semester units for their education plan and participate in registration and orientation events sponsored by Sierra Promise. In return, students receive guided assistance through the enrollment process, receive priority registration for their first semester, and are connected to student success programs for additional academic and financial resources. For additional information please visit the Sierra Promise website (https://www.sierracollege.edu/admissions/promise-program-high-school-students/).

Student Accessibility Services (SAS)

(formerly Disabled Students Programs and Services (DSPS)
Student Accessibility Services (SAS) is designed to assist students with disabilities so that the students may have access to all programs and activities on campus. The primary goal of SAS is to encourage and promote independence in students so they may achieve their full potential. SAS offers a number of specialized programs to help students with their academic, vocational, and career planning goals.1) SAS counselors are available to answer questions, help solve problems, and authorize accommodation services to mitigate students' disability-related educational limitations. Students with disabilities are encouraged to meet with a counselor and become familiar with the services available to them. 2) Learning Disability Services provides educational assessment, study strategies training, appropriate accommodations, and other support for students with learning disabilities. 3) Assistive Computer Technology (ACT) provides training in the use of adapted computer technology for word processing, internet access, and other applications integral to academic success and compensatory strategies. It also provides instructional material in accessible format and other alternate media services as appropriate to students with disabilities.

- For the Rocklin Campus call (916) 660-7460.
- For the Nevada County Campus, call (530) 274-5330.
- Tahoe-Truckee Campus call, (530) 550-2225

For more information please visit the SAS website (https://www.sierracollege.edu/student-services/support-programs/student-accessibility-services/).

Student Engagement Centers

Sierra College offers three distinct Student Engagement Centers (SECs):

- the Cross Cultural Center;
- the Pride Center; and
- the Women and Gender Resource Center.

The SECs provide cross-cultural, LGBTQIA, and gender intersectional programs and services to historically marginalized, underserved, and underrepresented students. These spaces, within the larger community of learners, provide leadership development training, student employment, and co-curricular activities beyond the classroom that support the academic experience for all students.

For more information, contact the Student Engagement Center at (916) 660-7550, email sec@sierracollege.edu, or visit the website (https://www.sierracollege.edu/student-services/support-programs/student-engagement-centers/).

Student Tech Support

The Information and Technology Services (ITS) department offers complimentary support to students for accessing and effectively utilizing Sierra College technology. Our staff is accessible for assistance through live chat, email, and in-person at the Learning Commons Lab located on the Rocklin campus. Students may request assistance with various platforms including mySierra, Canvas, Sierra Connect, Microsoft Office 365, remote lab access, and other course-related software, along with receiving basic troubleshooting support for personal devices. Additionally, the Student Tech Support department is available to aid with account security concerns and setup procedures.

Phone: (916) 660-7777

Email: studenttechsupport@sierracollege.edu

Student Tech Support (https://www.sierracollege.edu/academics/academic-support/student-tech-support/ but name the hyperlink www.sierracollege.edu/studenttech/)

Success Center

The Success Center aligns with Interest Areas, which are groups of related academic programs offered at Sierra College. Services are designed to bridge the gaps between continuing students' needs and the various campus resources, programs, and services Sierra College provides to help students succeed. Services include: tracking academic goals, exploring careers and interest areas, and assistance navigating campus programs and resources. For more information please visit the website (https://www.sierracollege.edu/student-services/success-ctr.php). You may also call (916) 660-7520 for the Rocklin campus, or (530) 274-5340 for the Nevada County campus, or send an email to successcenter@sierracollege.edu .

TRiO Student Support Services

TRiO Student Support Services (TRiO SSS) is a federally funded program that helps students overcome class, social, and cultural barriers to education. TRiO supports first-generation college, low-income, and students with documented disabilities in achieving an associate degree and/or transferring to a four-year university. Eligible students may receive specialized academic counseling, personal counseling, a comprehensive academic map, priority registration, help with the cost of textbooks, campus tours to four-year universities, free additional tutoring, free off-campus events, a laptop, an educational technology loan, and education regarding budgeting for college. Students must meet specific eligibility requirements to be selected for services. For more information, contact the Sierra College TRiO office at (916) 660-7377, or go to the TRiO web page (https://www.sierracollege.edu/student-services/support-programs/trio/).

Tutorial Services

The Tutor Centers provide students with the academic support needed to achieve success. Free tutorial services are available to students for classes in which they are enrolled at Sierra College. Tutors are successful Sierra College students who support peers in a welcoming online and in-person learning community. Tutors help with study skills and class content in over 140 subjects.

Students do not need to be failing a class to request tutorial assistance; in fact, students very often seek tutor assistance to maintain understanding or to further expand their information base.

Academically strong students with effective communication skills who have received A's and B's in their classes are encouraged to inquire about the possibility of becoming paid tutors.

For further information, contact the Rocklin Campus Tutor Center at (916) 660-7220, Room LR-402 on the fourth floor of the Learning Resource Center; or the Nevada County Campus Tutor Center at (530) 274-5308, Library/Learning Commons N6.

Umoja Learning Community

The Umoja Learning Community is open to all students and is designed to increase the retention and success rates as well as the graduation and transfer rates of African ancestry students. Umoja (a Kiswahili word meaning unity) is dedicated to enhancing the cultural and educational experiences of Black and African American students, seeking to educate the whole student—body, mind and spirit. The curriculum focuses on improving reading, writing, self-discipline and critical thinking skills. Umoja also provides assistance with the personal issues that often hinder Black and African American students in an educational setting. Benefits of participating in the Umoja program include a strong support system, integrated instruction, tutoring, motivational/cultural workshops and college campus tours, book loan program, and mentorship with campus faculty/staff and community members. Applications and enrollment eligibility information (https://www.sierracollege.edu/student-services/support-programs/black-and-african-american-support-and-resources/#umoja) are available on the Sierra College website or in the Rocklin campus Counseling Center. For additional information, contact Tonya Times at ttimes@sierracollege.edu.

Undocumented and International Student Center

A welcoming and supporting space that offers guidance and resources to undocumented students, mixed status families and international students to meet their higher education and career goals.

For more information, contact the Center at (916) 741-0711, email undocu@sierracollege.edu, or visit the website.

Veterans Success Center

The Sierra College Veterans Success Center provides assistance to veterans and their dependents who are eligible for various educational benefits. For more information, please visit our website (https://www.sierracollege.edu/student-services/support-programs/veterans-success-center/).

Students receiving VA educational benefits are subject to the following general policies and requirements:

- New students must attend orientation and meet with the Sierra College Veterans Counselor before the start of their first semester.
- Official transcripts from all prior colleges, universities and training institutes must be submitted to the Sierra College Admissions and Records office.
- All prior college work must be evaluated for prior credit reporting. For this reason, it is best to order transcripts from previous colleges as early as possible.
- A veteran's educational goal/objective must be declared upon application for VA educational benefits.
- Each program change requires an appointment with the Veterans Counselor to obtain an education plan.
- Academic progress toward the stated degree objective must be satisfactory. For details, see the Probation and Dismissal sections of this catalog. Failure to maintain a 2.0 GPA may result in termination of benefits.
- Adds, drops, changes of address, etc., must be reported to the Veterans Resource Center.

Students may receive credit towards degree requirements for training completed while in the military. Please submit transcripts to Admissions and Records. These may include Joint Services Transcript (JST); Sailor/Marine American Council on Education Registry Transcript (SMART); Army and American Council on Education Registry Transcript Service (AARTS); Community College of the Air Force (CCAF) transcript; Coast Guard Institute (CGI) transcript; official transcripts from DANTES/USAFI; Defense Language Institute Foreign language Transcripts (DLIFLC); Defense Manpower Data Center (DMDC) DLPT Examinee Results; DA Form 330 Language Proficiency Questionnaire; or verified copies of DD214 or DD295 military records.

Veteran Dependent Exemption: Those children and spouses of U.S. veterans with service connected disabilities or U.S. veterans who died in service or from service-connected disabilities may be eligible for a college fee waiver. For more information contact your county Veterans Services Office or the California Department of Veterans Affairs.

Writing Center

The Sierra College Writing Centers provide students with professional support and guidance in all writing projects, regardless of course level or assignment complexity. Students may come to the Writing Center, second

floor, Learning Resource Center at the Rocklin Campus, or Library/Learning Commons N6 at the Nevada County Campus, for these services.

The Writing Center staff is committed to helping all students complete writing assignments successfully and on time, regardless of the student's academic preparation or language background. For further information, call the Rocklin Campus Writing Center at (916) 660-7230 or the Nevada County Campus Writing Center at (530) 274-5362, or email writingcenter@sierracollege.edu.

Voter Registration

Voter registration materials are available at the Campus Life Office and the Civic Engagement and Voter Empowerment webpage for students who wish to register to vote. For more information please visit the Civic Engagement and Voter Empowerment webpage (https://www.sierracollege.edu/vote/).

Student Activities

Associated Students of Sierra College

All students become members of the Associated Students of Sierra College (ASSC) upon enrollment and are guaranteed equal and unbiased representation by the elected representatives of the Student Senate.

Campus Activities

Learning opportunities for Sierra College students extend beyond the classroom to the many extracurricular opportunities available at district campuses. The ASSC provides avenues to develop leadership skills and provide service to the college and the community while exploring a wide range of ideas and perspectives.

The Student Senate is the formal voice of the students and provides the opportunity to participate in the participatory governance of Sierra College. The officers of the Student Senate represent the student body on participatory governance committees, councils, workgroups, taskforces, and to the Board of Trustees.

Student clubs enhance the college experience through student involvement in specialized fields of interest associated with an academic major, a personal interest in a particular activity, or service to the college or the community. See the complete list of student clubs (https://www.sierracollege.edu/clubs/) on the website.

The Campus Life offices, are resource centers dedicated to enhancing the educational experience for all students. The Campus Life program provides pathways for students to become informed, educated leaders and citizens.

For more information please visit the Campus Life website (https://www.sierracollege.edu/campuslife/).

Athletics

Sierra College supports opportunities for student athletes to continue their pursuit of individual goals academically and athletically by providing a quality program of intercollegiate competition for men and women. Wolverine teams compete in the following:

Men's Sports—baseball, basketball, football, golf, swimming and diving, water polo and wrestling;

Women's Sports—basketball, beach volleyball, cross country, golf, soccer, softball, swimming and diving, tennis, track, volleyball, and water polo.

Sierra College is a member of the California Community College Athletic Association and competes in the Big 8 Conference and the Northern California Football Conference's National NorCal Division. Other members of the Big 8 Conference include American River, Cosumnes River, Diablo Valley, Folsom Lake, Modesto, Sacramento City, San Joaquin Delta and Santa Rosa. Other football teams competing in the NorCal Division include American River College, Butte College, College of the Siskiyous, Feather River College, and Sacramento City College.

Any student interested in participating should check with the various coaches or the athletic director regarding special rules covering residence, number of units carried, transfers, etc. For information, call (916) 660-8100.

Honor Society

Sierra College students who have completed 12 units of degree applicable credit at Sierra College with a 3.5 GPA are eligible to join the college's Beta Mu Zeta chapter of Phi Theta Kappa International Honor Society of the Two Year College. The purpose of Phi Theta Kappa is to recognize and encourage scholarship among two-year college students. Phi Theta Kappa provides opportunities for the development of leadership and service, for an intellectual climate for exchange of ideas and ideals, for lively fellowship for scholars and eligibility to apply for Phi Theta Kappa Transfer Scholarships. For additional information, visit the honors page (https://www.sierracollege.edu/student-services/support-programs/honors/) on the website.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 5.

Associate Degree and Certificate Information

Associate in Arts for Transfer/Associate in Science for Transfer Degrees
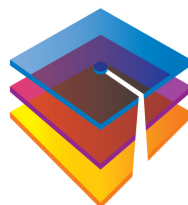
California community colleges offer associate degrees for transfer to the California State University system. These degrees are designed to provide clear pathways to CSU majors and baccalaureate degrees. Students awarded associate degrees for transfer and meeting the CSU minimum transfer admission requirements are guaranteed admission with junior standing within the CSU system. Students are also given priority admission consideration to their local CSU campus, or to a program that is deemed similar to the community college major. This priority does not guarantee admission to a specific major or campus.

Students awarded associate degrees for transfer are able to complete their remaining requirements for the 120-unit baccalaureate degree within 60 semester or 90 quarter units.

For more information about associate degrees for transfer, go to https://icangotocollege.com/associate-degree-for-transfer (https://icangotocollege.com/associate-degree-for-transfer/).

Students should consult with a counselor for information on university admission and transfer requirements and to develop an educational plan that best meets their goals and needs. The following requirements apply for AA-T or AS-T degrees:

1. Completion of major requirements with grades of "C" or better.
2. Completion of 60 CSU-transferable semester units, 12 of which must be completed at Sierra College. (Units received through credit by examination do not count toward the 12-unit residency requirement.)
3. A minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
4. Certified completion of either the California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/).

RESTRICTION: International coursework from non-United States regionally accredited institutions cannot be applied to associate degrees for transfer.

Associate of Arts/Associate of Science Degrees

Students planning to graduate with an associate degree must:

1. Complete major requirements with grades of "C" or better.
2. Complete a minimum of 60 degree-applicable semester units, 12 of which must be completed at Sierra College. (Units received through credit by examination do not count toward this requirement.)
3. Earn a minimum grade point average of at least 2.0 in all degree-applicable coursework.
4. Complete one of the following three general education patterns:
   a. Sierra College Associate Degree Requirements (p. 305);
   b. California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)

Note: Students who possess a baccalaureate or higher degree completed at a college or university accredited through a CHEA (Council for Higher Education Accreditation) recognized Regional Accrediting Agency will have satisfied Sierra College general education and competency requirements for the Associate of Arts or Associate of Science degree.

Certificates of Achievement

A certificate of achievement is designed to demonstrate that a student has completed coursework and developed capabilities relating to career or general education. Certificates of achievement require a minimum of 16 units. Students must:

1. Earn grades of "C" or better in all required courses.
2. Complete at least one (1) required course at Sierra College. (Units received through Credit for Prior Learning (CPL) do not count toward this requirement.)

Certificates of achievement are recorded on student transcripts.

Gainful Employment Disclosure Information

The U.S. Department of Education requires colleges to disclose certain information about Title IV eligible certificate of achievement programs that "prepare students for gainful employment in a recognized occupation." The information is intended to assist current and prospective students as they make career and educational choices. Specific information for each certificate program is located at www.sierracollege.edu/gainfulemployment (https://www.sierracollege.edu/student-services/career-transfer-internship/prepare-for-a-career/gainful-employment-data/).

Skills Certificates

A skills certificate is an acknowledgement that a student has attained a specified set of competencies within a career and technical education program, either in preparation to enter the field or upgrade of skills required for continued employment. Skills certificates require a minimum of 6 units and a maximum of 15.5 units.

1. Students must earn grades of "C" or better in all required courses.
2. Skills certificates are not recorded on student transcripts.

Noncredit Career Development and College Preparation (CDCP) Certificates

Noncredit Career Development or College Preparation certificates prepare students for employment or to be successful in college-level credit coursework. No units are awarded for noncredit courses or certificates. Noncredit courses and certificates are recorded on separate transcripts from credit coursework.

Catalog Rights

Sierra College issues a new catalog every academic year. New programs may be introduced and course requirements for specific majors may change from one catalog to the next. For purposes of meeting Sierra College degree and/or certificate requirements, students may choose from the following Sierra College catalog options:

1. The catalog in effect at the time the student first enrolled at Sierra College or any year thereafter, as long as continuous enrollment has been maintained;
2. The catalog in effect at the intended semester/session of graduation; or
3. The catalog in effect at the time the student first enrolled at a California community college, a California State University, a University of California campus, and/or a regionally accredited institution of higher education, as long as continuous enrollment has been maintained.

Continuous enrollment is defined as enrollment in at least one course per calendar year (spring, summer, fall), with at least one of the following academic record symbols recorded on an official transcript: A, B, C, D, F, W, EW, MW, P, NP, or I. Students beginning enrollment during the summer have the option of choosing the prior academic year's catalog.

If continuous enrollment is interrupted, students may reestablish catalog rights based on the date of reenrollment at Sierra College or any other California community college, CSU, UC campus, or regionally accredited institution of higher education.

Regardless of catalog rights, a course may be used to satisfy a general education requirement if it was approved for the general education area at the time the course was successfully completed and the course complies with Title 5 regulations.

Catalog rights do not apply to entrance requirements for programs (e.g., Nursing).

General Education Reciprocity

Title 5 outlines and defines general education subject areas that each California Community College must include. As many students attend more than one college, and the courses that are locally approved for a particular GE area vary among colleges, Sierra College grants reciprocity for all lower-division general education designated courses completed at California Community Colleges, California State Universities, and University of California campuses, provided the courses comply with Title 5 regulations.

Associate Degree for Transfer Reciprocity

For AA-T and AS-T degrees, reciprocity will be granted for those courses taken at other California community colleges in Transfer Model Curriculum (TMC) aligned degrees, provided that the transfer courses appear in the same specific area in the major pattern. The flexibility to move courses between areas is dependent upon the parameters defined in the individual TMC. TMC templates are maintained on the California Community Colleges Chancellor's Office website. If there are any questions about course applicability, the discipline faculty must make the determination.

Double-Counting

Sierra College encourages double-counting, which is the practice of allowing students to use a course to satisfy both a general education requirement and a major requirement. While a course may be listed in multiple general education areas, it may only be used to satisfy one general education requirement.

Honor Graduates

Upon graduation, students are recognized with honors when they have completed all degree-applicable credit courses with a cumulative grade point average of 3.5 or better. Other college lower-division coursework posted to the Sierra College transcript is included in this GPA calculation.

Degree and Certificate Request

Students desiring an associate degree or certificate must submit an online request via mySierra by the following semester deadlines:

Fall 2025	October 1, 2025
Spring and Summer 2026	March 1, 2026

Students requesting a duplicate diploma must submit a $10.00 fee per diploma. Students requesting a duplicate certificate must submit a $5.00 fee per certificate.

Degree Works

Degree Works is the official, web-based degree audit tool used to review progress toward graduation. The program uses courses from the student's transcript and places them in general education and major areas so counselors and students can see the completed and remaining degree requirements. A 'What-If' option allows exploration of other majors. Degree Works is located in mySierra through the Academic Tools tab. Degree Works is also used to determine if a course is considered Financial Aid eligible.

Auto-Awarding of Degrees and Certificates

Sierra College may discover and notify students that they are eligible for a degree and/or certificate based on satisfactory completion of course work and in progress classes. These awards may be in addition to other degrees and certificates that have been requested. Students will have two weeks to opt-out from the date they were notified of the pending award. Notifications will be sent to students' Sierra College email account. Once a degree or certificate has been awarded it may not be removed from the students' academic record.

Not all students will have awards discovered by auto-awarding. It is important that students meet with their counselor on a regular basis to ensure they are on track. All students should submit a request for their degree and/or certificates in advance of the March 1st and October 1st deadline. Students can view their degree/certificate status in Degree Works.

Students who will be taking classes at Sierra College in the next semester to meet additional educational goals/requirements and plan to receive financial aid, need to schedule an appointment with their counselor to ensure these classes are listed on their student educational plan.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 4.

ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

Administration of Justice

- Administration of Justice for Transfer: AS-T Degree (p. 36)
- Administration of Justice—Corrections: AA/AS Degree (p. 36)
- Administration of Justice—Courts: AA/AS Degree (p. 36)
- Administration of Justice—Law Enforcement: AA/AS Degree (p. 36)
- Reserve Peace Officer: Certificate of Achievement (p. 36)

Advanced Manufacturing

- Advanced Manufacturing: AS Degree (p. 43)
- Advanced Manufacturing—Mechanical/Civil: AA/AS Degree (p. 43)
- Advanced Manufacturing: Certificate of Achievement (p. 43)
- Advanced Manufacturing: Mechanical/Civil: Certificate of Achievement (p. 43)
- Drafting Essentials: Skills Certificate (p. 43)
- Foundations of Modern Machining: Skills Certificate (p. 43)
- Mechanical Drafting Specialist: Skills Certificate (p. 43)

Agriculture

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- Sustainable Agriculture: Certificate of Achievement (p. 47)
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Allied Health

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- Allied Health (p. 49)— (p. 36)General Option: Certificate of Achievement (p. 49)
- Medical Assisting: Certificate of Achievement (p. 49)
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Anthropology

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Applied Art and Design

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- Applied Art and Design—Film and Video Production: AS Degree (p. 58)
- Applied Art and Design—Graphic Design: AA/AS Degree (p. 58)
- Applied Art and Design—Illustration: AA/AS Degree (p. 58)
- Applied Art and Design—Web and Interaction Design: AS Degree (p. 58)
- Applied Art and Design—Digital Media: Certificate of Achievement (p. 58)
- Applied Art and Design—Film and Video Production: Certificate of Achievement (p. 58)

- Applied Art and Design—Graphic Design: Certificate of Achievement (p. 58)
- Applied Art and Design—Illustration: Certificate of Achievement (p. 58)
- Applied Art and Design—Web and Interaction Design: Certificate of Achievement (p. 58)
- Animation and Motion Graphics: Skills Certificate (p. 58)
- Creative Entrepreneurship: Skills Certificate (p. 58)
- Graphic Design: Skills Certificate (p. 58)
- Illustration: Skills Certificate (p. 58)
- Video Production and Editing: Skills Certificate (p. 58)
- Visual Media: Skills Certificate (p. 58)
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Art

- Studio Arts for Transfer: AA-T Degree (p. 67)
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Art History

- Art History for Transfer: AA-T Degree (p. 72)

Astronomy

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Automotive Technology

- Automotive Basics: Skills Certificate (p. 80)
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- Biology for Transfer: AS-T Degree (p. 82)
- Biological Sciences: AS Degree (p. 82)
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Building Industries

- Construction Management: AS Degree (p. 90)
- Drafting Architectural/Civil: AA/AS Degree (p. 90)
- Drafting Architectural/Civil: Certificate of Achievement (p. 90)
- Facilities Automation and Building Energy: Certificate of Achievement (p. 90)
- Architectural Drafting Specialist: Skills Certificate (p. 90)
- Construction Basics: Skills Certificate (p. 90)
- Construction Fundamentals: Noncredit Certificate of Completion (p. 90)
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Business

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- Sociology for Transfer: AA-T Degree (p. 261)

Spanish

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Theatre Arts

- Theatre Arts for Transfer: AA-T Degree (p. 266)
- Theatre Arts: AA Degree (p. 266)
- Stagecraft: Skills Certificate (p. 266)
- Costuming: Skills Certificate (p. 266)

Welding Technology

- Welding Technology: AA/AS Degree (p. 271)
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- Gas Metal Arc Welding: Skills Certificate (p. 271)
- Gas Tungsten Arc Welding: Skills Certificate (p. 271)
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- Shielded Metal Arc Welding: Skills Certificate (p. 271)
- Welding Entrepreneurship: Skills Certificate (p. 271)

Women and Gender Studies

- Women's Studies: AA Degree (p. 275)

General Education Options

NOTE: Effective Fall 2025, California General Education Transfer Curriculum (Cal-GETC) will be the only general education option for transfer students and students earning an Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T). IGETC and CSU GE will no longer be an option. Students with continuous enrollment prior to 2025-2026 may continue with IGETC and CSU GE.

- California General Education Transfer Curriculum (Cal-GETC) 2025-2026 (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/)
- Sierra College Associate Degree Requirements (Local General Education) 2025-2026 (p. 305)

Reference: Sierra College Administrative Procedure 4025

Sierra College Associate Degree Requirements 2025-2026

Sierra College Philosophy for General Education: General education is designed to introduce students to the variety of means through which people comprehend the modern world. General education introduces the content and methodology of the major areas of knowledge: the humanities and fine arts, the natural sciences and the social sciences. The general education program provides the opportunity for students to develop the intellectual skills, information technology facility, affective and creative capabilities, social attitudes and appreciation for cultural diversity that will make them effective learners and citizens.

Note: Students who possess a baccalaureate or higher degree completed at a college or university accredited through a CHEA (Council for Higher Education Accreditation) recognized Regional Accrediting Agency will have satisfied Sierra College general education and competency requirements for the Associate of Arts or Associate of Science degree. International coursework from non-United States regionally accredited institutions cannot be used to waive Sierra College General Education.

I. General Education Breadth Requirements

Area 1 - English Communication

Select two courses (minimum 6 semester units) - one from Group 1A and one from Group 1B or Group 1C:

Code	Title	Units
Group 1A - English Composition		
ENGL C1000	Academic Reading and Writing	
Group 1B - Critical thinking		
COMM 0002	Argumentation and Rhetorical Criticism	
ENGL 0001B	Critical Thinking and Writing about Literature	
ENGL C1001	Critical Thinking and Writing	
PHIL 0004	Introduction to Critical Thinking	
PHIL 0012	Introduction to Symbolic Logic	
Group 1C - Oral Communication		
BUS 0265	Business Communications	
BUS 0266	Introduction to Oral Communication	
COMM C1000	Introduction to Public Speaking	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0008	Interpersonal Communication	
THEA 0010A	Acting I	
THEA 0010B	Acting II	

Area 2 - Mathematical Concepts and Quantitative Reasoning

Select one course (minimum 3 semester units) from the following:

Code	Title	Units
BUS 0215	Personal Finance	
MATH 0010	Problem Solving	
MATH 0011	Data Science for All	
MATH 0012	College Algebra	
MATH 0015	Discrete Mathematics	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
MATH 0017	Concepts of Mathematics	
MATH 0018	The Nature of Mathematics	
MATH 0019	Mathematical Concepts for Elementary School Teachers	
MATH 0024	Modern Business Mathematics	
MATH 0027	Trigonometry	
MATH 0029	Pre-Calculus Mathematics	

MATH 0030	Analytical Geometry and Calculus I
MATH 0031	Analytical Geometry and Calculus II
MATH 0032	Analytical Geometry and Calculus III
MATH 0033	Differential Equations and Linear Algebra
MATH 0042	Business Calculus
PSYC 0142	Introduction to Psychological Statistics
SOC 0015	Introduction to Statistics in Sociology
STAT C1000	Introduction to Statistics

Area 3 - Arts and Humanities

Select one course (Minimum 3 semester units) from Arts or Humanities:

Code	Title	Units
Arts		
AAD 0013	History of Graphic Design	
AAD 0044	Sketching for Design	
AAD 0060	Graphic Design I: Principles and Process	
AAD 0088	History of Filmmaking	
AAD 0089	Documentary Filmmaking	
ART 0002	Two-Dimensional Design Foundations	
ART 0003	Three-Dimensional Design Foundations	
ART 0004A	Drawing I	
ART 0004B	Drawing II	
ART 0005A	Figure Drawing I	
ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
ART 0008A	Watercolor Painting I	
ART 0009A	Acrylic Painting I	
ART 0012A	Sculpture I	
ART 0017	Ceramic Sculpture/Handbuilding	
ART 0018A	Ceramics I	
ART 0018B	Ceramics II	
ART 0019	Figure Sculpture	
ART 0020	Raku Ceramics	
ART 0022	Metal Arts	
ART 0024	Advanced Metal Arts	
ART 0032A	Fiber Arts I	
ART 0033	Art Metal Casting	
ART 0034	Collage and Assemblage	
ART 0040A	Printmaking I	
ART 0041	Introduction to Jewelry and Metalsmithing	
ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0142	History of Latinx and Chicanx Art	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	
COMM 0006	Performance of Diverse Literatures	
ENGL 0018	Creative Writing (Non-Fiction)	
ENGL 0019	Introduction to Creative Writing	
ENGL 0020	Creative Writing (Poetry)	
ENGL 0021	Creative Writing (Fiction)	
FASH 0012	Fashion History	
HUM 0001	Introduction to Humanities I	
HUM 0002	Introduction to Humanities II	
HUM 0003	Introduction to Asian Humanities	
MUS 0002	Music Appreciation	
MUS 0006A	Music Theory I	
MUS 0006B	Music Theory II	
MUS 0009A	Music Theory III	
MUS 0009B	Music Theory IV	
MUS 0010	Music Fundamentals	
MUS 0011	Introduction and History of Jazz	
MUS 0012A	Survey of Music History and Literature to 1750	
MUS 0012B	Survey of Music History and Literature from 1750 to Present	
MUS 0013	Introduction to Music: History of Rock and Roll	
MUS 0024	Introduction to Music Cultures of the World	
MUS 0039A	Beginning Voice	
MUS 0039B	Intermediate Voice	
MUS 0039C	Advanced Voice I	
MUS 0039D	Advanced Voice II	
MUS 0040A	Beginning Piano I	
MUS 0040B	Beginning Piano II	
MUS 0040C	Intermediate Piano I	
MUS 0040D	Intermediate Piano II	
MUS 0046	Jazz Ensemble	
MUS 0047	Vocal Jazz Ensemble	
MUS 0048	Concert Choir	
MUS 0050	Wind Ensemble	
MUS 0054	Symphonic Band	
PHOT 0010	History of Photography	
PHOT 0060A	Beginning Photography	
PHOT 0065	Documentary Photography	
PHOT 0089	Documentary Filmmaking	
THEA 0010A	Acting I	
THEA 0013	Introduction to Theatre	
THEA 0016A	Costume History	
THEA 0018	Acting for Musical Theatre	
THEA 0021	Script Analysis	
Humanities		
AAD 0012	Visual Communication	

COMM 0010	Communication Theory, Methods, and Practice
COMM 0012	Visual Communication
COMM 0072	Multimedia Reporting
DFST 0001	American Sign Language I
DFST 0002	American Sign Language II
DFST 0003	American Sign Language III
DFST 0004	American Sign Language IV
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0016	Introduction to LGBTIQ Literature
ENGL 0017	Introduction to Shakespeare and Popular Culture
ENGL 0024	Introduction to Literary Criticism and Critical Concepts
ENGL 0027	Literature by Women
ENGL 0029	Introduction to Drama as Literature
ENGL 0030A	American Literature - Beginnings through Civil War
ENGL 0030B	American Literature - Civil War to the Present
ENGL 0032	Introduction to Poetry
ENGL 0033	Introduction to Shakespeare (The Drama)
ENGL 0034	Introduction to the Novel
ENGL 0035	Introduction to the Short Story
ENGL 0037	American Film Masterpieces
ENGL 0038	International Film Masterpieces
ENGL 0040	The Filmed Novel
ENGL 0042	The Documentary Film
ENGL 0044	Children's Literature
ENGL 0045	Young Adult Literature
ENGL 0046A	English Literature
ENGL 0046B	English Literature
ENGL 0047A	World Literature
ENGL 0047B	World Literature
ENGL 0048	Literature of Science Fiction
ESL 0025C	Advanced Reading and Writing
ETHN 0030	Introduction to Chicana/o Studies
ETHN 0050	Ethnic Images in Film
FREN 0001	Elementary French - Level I
FREN 0002	Elementary French - Level II
FREN 0003	Intermediate French - Level I
FREN 0004	Intermediate French - Level II
GER 0001	Elementary German - Level I
GER 0002	Elementary German - Level II
HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
HIST 0017A	History of the United States to 1877
HIST 0017B	History of the United States since 1865
HIST 0018A	The African American Experience in American History to 1877
HIST 0018B	The African American Experience in American History since 1877

HIST 0019A	History of Traditional East Asia
HIST 0019B	History of Modern East Asia
HIST 0020	California History
HIST 0021	Contemporary United States History
HIST 0023	Chicano/Mexican American History
HIST 0024	Russian History - 10th Century to Present
HIST 0025	Native American History
HIST 0026	Women in World History
HIST 0027	Women in American History
HIST 0050	World History to 1500
HIST 0051	World History since 1500
HDEV 0044	Children's Literature
HUM 0005	Classical Roots of the Contemporary Western World
HUM 0009	Introduction to Women, Gender and Religion
HUM 0010	World Religions
HUM 0015	Introduction to Mythology
HUM 0017	Introduction to Atheism
HUM 0020	Introduction to the Hebrew Bible
HUM 0021	Introduction to the New Testament
ITAL 0001	Elementary Italian - Level I
ITAL 0002	Elementary Italian - Level II
LGBT 0002	Queer (LGBTIQ) Film History
MUS 0024	Introduction to Music Cultures of the World
PHIL 0002	Introduction to Philosophy: Ethics
PHIL 0004	Introduction to Critical Thinking
PHIL 0006	Introduction to Philosophy: Knowledge and Reality
PHIL 0010	Philosophy of Religion
PHIL 0013	Introduction to Asian Philosophy
PHIL 0020	History of Ancient Greek Philosophy
PHIL 0021	History of Modern Philosophy
PHIL 0027	Introduction to Philosophy of Women in Western Cultures
PHIL 0030	Introduction to Social and Political Philosophy
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science
SPAN 0001	Elementary Spanish - Level I
SPAN 0002	Elementary Spanish - Level II
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
SPAN 0017	Intermediate Conversational Spanish
THEA 0021	Script Analysis
WMST 0003	Introduction to Women, Gender and Religion

Area 4 - Social and Behavioral Sciences

Select one course (minimum 3 semester units) from Social or Behavioral Sciences:

Code	Title	Units
Social Sciences		
ADMJ 0050	Introduction to Administration of Justice	
AGRI 0196	Introduction to Sustainable Agriculture	
AGRI 0198	Food, Society and the Environment	
AGRI 0215	Introduction to Agricultural Business and Economics	
ARHI 0132	History of Women in Art	
ARHI 0142	History of Latinx and Chicanx Art	
BUS 0260	Introduction to Business	
BUS 0271	Law and Society	
ECON 0001A	Principles of Macroeconomics	
ECON 0001B	Principles of Microeconomics	
ETHN 0014	Introduction to Asian American Studies	
ETHN 0020	Introduction to African American Studies	
ETHN 0030	Introduction to Chicana/o Studies	
ETHN 0045	Federal Indian Law and Policy	
ETHN 0050	Ethnic Images in Film	
ETHN 0053	Introduction to Native American Studies	
FASH 0015	Clothing and Culture	
GEOG 0002	Cultural Geography	
GEOG 0003	Geography of California	
GEOG 0005	World Regional Geography	
HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
HIST 0017A	History of the United States to 1877	
HIST 0017B	History of the United States since 1865	
HIST 0018A	The African American Experience in American History to 1877	
HIST 0018B	The African American Experience in American History since 1877	
HIST 0019A	History of Traditional East Asia	
HIST 0019B	History of Modern East Asia	
HIST 0020	California History	
HIST 0021	Contemporary United States History	
HIST 0022	American Military History	
HIST 0023	Chicano/Mexican American History	
HIST 0024	Russian History - 10th Century to Present	
HIST 0025	Native American History	
HIST 0026	Women in World History	
HIST 0027	Women in American History	
HIST 0049	The American West	
HIST 0050	World History to 1500	
HIST 0051	World History since 1500	
HUM 0009	Introduction to Women, Gender and Religion	
KIN 0086	Psychology of Sport	
LGBT 0001	Introduction to LGBT Studies/Queer Theory	
PDEV 0075	Study of Happiness and Well-Being	
POLS C1000	American Government and Politics	
POLS 0002	Introduction to Comparative Government	
POLS 0003	Introduction to International Relations	
POLS 0004	Russian and East European Political Systems	
POLS 0005	California Politics and Government	
POLS 0007	Politics of the Developing World	
POLS 0008	American Foreign Policy	
POLS 0009	Politics of the Middle East	
POLS 0012	Terrorism	
POLS 0016	Introduction to Political Theory	
POLS 0017	Introduction to Political Science Research Methods	
POLS 0027	Women and Politics in a Global Society	
PSYC 0180	Cultural Psychology	
SOC 0010	Feminism and Social Action	
SOC 0027	Sociology of Gender	
WMST 0001	Introduction to Women's Studies	
WMST 0002	Introduction to LGBT Studies/Queer Theory	
WMST 0003	Introduction to Women, Gender and Religion	
WMST 0004	Feminism and Social Action	
WMST 0006	Introduction to Disability Studies	
Behavioral Sciences		
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0005	Introduction to Archaeology	
ANTH 0006	Introduction to Linguistic Anthropology	
ANTH 0007	Native Peoples of California	
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	
ANTH 0014	Global Problems	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	
BUS 0210	Ethical Studies in Business	
BUS 0215	Personal Finance	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
COMM 0010	Communication Theory, Methods, and Practice	
COMM 0070	Mass Communication: Media and Society	
COMM 0071	Newswriting and Reporting Techniques	
COMM 0072	Multimedia Reporting	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ETHN 0011	Introduction to Ethnic Studies	

GEOG 0003	Geography of California
HDEV 0001	Human Development Through the Lifespan
HDEV 0004	Child, Family, and Community
HDEV 0009	Child Growth and Development
HDEV 0021	Psychology of Intimate Relationships and Family
HDEV 0022	The Family
HDEV 0025	Teaching in a Diverse Society
HUM 0003	Introduction to Asian Humanities
NUTF 0010	Principles of Nutrition
NUTF 0014	Sports Nutrition
PSYC C1000	Introduction to Psychology
PSYC 0103	Social Psychology
PSYC 0104	Developmental Psychology
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0107	Abnormal Psychology
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Intimate Relationships and Family
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0150	Alcohol, Drugs and Society
PSYC 0160	Psychology and Film

Area 5 - Natural Sciences
Select one course or Course Combination (minimum 3 semester units) from Life or Physical Sciences:
(To earn an AS degree, an approved laboratory course/combination must be completed. Laboratory courses and lecture/laboratory courses are indicated by an asterisk (*).)

Code	Title	Units
Life Sciences		
AGRI 0156	Introduction to Plant Science (*)	
AGRI 0198	Food, Society and the Environment	
AGRI 0200	Introduction to Animal Science (*)	
ANTH 0001	Biological Anthropology	
ANTH 0001 & 0001L	Biological Anthropology and Biological Anthropology Laboratory (*)	
ANTH 0010	Introduction to Forensic Anthropology	
ASTR 0007	Life in the Universe	
BIOL 0001	General Biology (*)	
BIOL 0002	Botany (*)	
BIOL 0003	General Zoology (*)	
BIOL 0004	Microbiology (*)	
BIOL 0005	Human Anatomy (*)	
BIOL 0006	Human Physiology (*)	
BIOL 0010	Introduction to Biology (*)	
BIOL 0011	Concepts of Biology (*)	
BIOL 0014	Natural History, Ecology and Conservation (*)	

BIOL 0015	Marine Biology (*)
BIOL 0021	Introduction to Plant Science (*)
BIOL 0024	Wildland Trees and Shrubs (Dendrology) (*)
BIOL 0030	Introduction to Ornithology (*)
BIOL 0033	Introduction to Zoology (*)
BIOL 0035	Introduction to Entomology (*)
BIOL 0036	Introduction to Mammalogy (*)
BIOL 0055	General Human Anatomy and Physiology (*)
BIOL 0056	Biology: A Human Perspective
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory (*)
BIOL 0140	Organismal Biology (*)
ESS 0001	Introduction to Environmental Sciences and Sustainability
ESS 0001 & 0001L	Introduction to Environmental Sciences and Sustainability and Introduction to Environmental Science Laboratory (*)
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate
ESS 0008	California Water (*)
ESS 0010	Conservation of Natural Resources
ESS 0014	Natural History, Ecology and Conservation (*)
PSYC 0140	Introduction to Biopsychology
PSYC 0140 & 0140L	Introduction to Biopsychology and Biopsychology Laboratory (*)
Physical Sciences	
AGRI 0221	Introduction to Soil Science (*)
ASTR 0002	Introduction to Planetary Systems
ASTR 0002 & ASTR 0011	Introduction to Planetary Systems and Observational Astronomy (*)
ASTR 0002 & ASTR 0014	Introduction to Planetary Systems and Astrophotography and Imaging (*)
ASTR 0005	Introduction to Stars, Galaxies, and the Universe
ASTR 0005 & ASTR 0011	Introduction to Stars, Galaxies, and the Universe and Observational Astronomy (*)
ASTR 0005 & ASTR 0014	Introduction to Stars, Galaxies, and the Universe and Astrophotography and Imaging (*)
ASTR 0007	Life in the Universe
ASTR 0010	Elementary Astronomy
ASTR 0010 & ASTR 0011	Elementary Astronomy and Observational Astronomy (*)
ASTR 0010 & ASTR 0014	Elementary Astronomy and Astrophotography and Imaging (*)
ASTR 0025	Frontiers in Astronomy
CHEM 0001A	General Chemistry I (*)
CHEM 0001B	General Chemistry II (*)
CHEM 0002A	Introduction to Chemistry I (*)

CHEM 0002B	Introduction to Chemistry II (*)	
CHEM 0003A	General Chemistry I - Part 1 (*)	
CHEM 0003B	General Chemistry I - Part 2 (*)	
CHEM 0140	Survey of Chemistry and Physics (*)	
ESCI 0001	Physical Geology	
ESCI 0001 & 0001L	Physical Geology and Physical Geology Laboratory (*)	
ESCI 0002	California Geology	
ESCI 0003	Historical Geology	
ESCI 0003 & 0003L	Historical Geology and Historical Geology Laboratory (*)	
ESCI 0007	Energy, Environment, and Climate	
ESCI 0010	Introduction to Earth Science	
ESCI 0010 & 0010L	Introduction to Earth Science and Introduction to Earth Science Laboratory (*)	
ESCI 0015	Introduction to Oceanography	
ESCI 0015 & 0015L	Introduction to Oceanography and Introduction to Oceanography Laboratory (*)	
ESCI 0050	Geology of National Parks and Monuments	
ESS 0001	Introduction to Environmental Sciences and Sustainability	
ESS 0001 & 0001L	Introduction to Environmental Sciences and Sustainability and Introduction to Environmental Science Laboratory (*)	
ESS 0006	The Sierra Nevada	
ESS 0007	Energy, Environment, and Climate	
ESS 0008	California Water	
ESS 0010	Conservation of Natural Resources	
GEOG 0001	Physical Geography	
GEOG 0001 & 0001L	Physical Geography and Physical Geography Laboratory (*)	
GEOG 0004	Weather and Climate	
MATH 0030	Analytical Geometry and Calculus I	
MECH 0001	The Science of Electronics	
PHYS 0010	Basic Concepts in Physics	
PHYS 0010 & 0010L	Basic Concepts in Physics and Basic Concepts in Physics Laboratory (*)	
PHYS 0105	General Physics I	
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory (*)	
PHYS 0110	General Physics II	
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory (*)	
PHYS 0140	Survey of Chemistry and Physics (*)	
PHYS 0205	Principles of Physics: Mechanics	
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics (*)	
PHYS 0210	Principles of Physics: Electricity and Magnetism	
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism (*)	
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics	
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics (*)	

Area 6 - Ethnic Studies

Select one course (minimum 3 semester units) from the following:

Code	Title	Units
ETHN 0011	Introduction to Ethnic Studies	
ETHN 0014	Introduction to Asian American Studies	
ETHN 0020	Introduction to African American Studies	
ETHN 0030	Introduction to Chicana/o Studies	
ETHN 0045	Federal Indian Law and Policy	
ETHN 0050	Ethnic Images in Film	
ETHN 0053	Introduction to Native American Studies	

A) To earn an AA or AS at Sierra College, students must:

- Complete a minimum of 18 semester (27 quarter) units of focused study in a major;
- Complete a minimum of 21 semester (28-31.5 quarter) units of General Education in the areas described above;
- Complete a total of 60 units, including major, general education, and elective courses;
- Complete at least 12 units at Sierra College ;
- Complete courses with a grade of "C" or better or a grade of "P" if the course is taken on a "Pass/No Pass" basis;
- Complete the requirements of the degree with a minimum cumulative Grade Point Average (GPA) of 2.0.

B) Courses may meet multiple requirements, including General Education. However, one course may not be counted in more than one General Education area.

C) Students who possess a baccalaureate or higher degree completed at a college or university accredited through a CHEA (Council for Higher Education Accreditation) (https://www.chea.org/) recognized Regional Accrediting Agency will have satisfied Sierra College general education and competency requirements for the Associate of Arts or Associate of Science degree. International coursework from non-United States regionally accredited institutions cannot be used to waive Sierra College General Education.

D) Students who intend to transfer to a four-year institution should speak to a Counselor, as the AA/AS General Education option may not be the best option. Please see California General Education Transfer Curriculum (Cal-GETC) (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/) for transfer general education requirements.

E) Students who wish to earn an AA-T or AS-T must complete California General Education Transfer Curriculum

(Cal-GETC)   (http://catalog.sierracollege.edu/student-resources/general-education/california-general-education-transfer-curriculum-cal-getc/).

F) All students are strongly advised to speak with a counselor choosing a major, general education, or transfer pathway.

Course Information

Understanding Course Descriptions

The courses described in this catalog may not be offered every term or every year. Check the class schedule (https://ssb.sierracollege.edu:8810/PROD/pw_sigsched.p_Search/) for the current term's class offerings. Course outlines for all courses are on file in the Office of Instruction.

Course Numbering System

0-299	Degree-applicable credit courses (includes courses with letter designations), may be accepted by the California State Universities and the University of California system
300-399	Degree-applicable credit courses in selected topics, generally transferable to the California State Universities and in some instances to the University of California system (Unless otherwise indicated, transfer credit for a "300" selected topics course is given only after review of the specific course outline/syllabus by the enrolling UC campus and may not be included in the UC admission decision.)
400-449	Degree-applicable credit courses in selected topics, generally not transferable to four-year institutions
500-599	Nondegree-applicable basic skills credit courses in reading, writing, computation, and English as a Second Language (limited to 30 units); see a counselor for limitation restrictions and exemptions
600-699	Nondegree-applicable credit courses
800-899	Noncredit courses (zero unit)

Common Course Numbering System

- The Common Course Numbering (CCN) System is a state-mandated initiative (AB1111) aimed at simplifying student transfer and ensuring uniformity in course numbers across California Community Colleges.
- Starting Fall 2025, Sierra College course offerings will include courses utilizing this new course numbering system. This new system will use the following structure:
- Subject: Four letter abbreviation (e.g., ENGL for English).
- Course Type Identifier: C= Common Course Number; local courses would not have a C; and
- Course Number: Standardized 4-digit course identification.
- Examples include: ENGL C1000 (formerly ENGL 1A), ENGL C1001 (formerly ENGL 1C), COMM C1000 (formerly COMM 1), PSYC C1000 (formerly PSYC 100), POLS C1000 (formerly POLS 100), STAT C1000 (formerly MATH 13).

Cross-Listed Courses

Courses that are cross-listed in more than one discipline are noted as such under the course title, (e.g., ENGL 0044, Also known as HDEV 0044). It may be completed only one time under either discipline.

Course Units

Units of credit are based upon a relationship between the number of units assigned to the course and the number of lecture and/or laboratory hours or performance criteria specified in the course outline. Courses require a minimum of three hours of student work per week, including class time for each unit of credit, prorated for short-term, extended term, laboratory and/or activity courses.

Transfer Status Designation

The transfer status of a course is indicated at the end of the course description.

(CSU) indicates that the course credit transfers to all of the California State University campuses.

(CSU-with unit limitation) indicates that there is a restriction on CSU course transferability.

(CSU, UC) indicates that the course credit transfers to all of the California State University and University of California campuses.

(CSU, UC-with unit limitation) indicates that there is a restriction on UC course transferability.

Courses that are marked (not transferable), (not degree-applicable), or (noncredit) are not transferable to a university.

Course Prerequisites, Corequisites and Advisories

Sierra College strives to guide students into courses in which they will have the greatest chance for academic success. The following are the definitions for prerequisites, corequisites and advisory preparation:

"Prerequisite" means a condition of enrollment that students are required to meet in order to demonstrate current readiness for enrollment in a course or educational program. "C" is the designated minimum grade for prerequisite courses.

"Corequisite" means a condition of enrollment consisting of a course that students are required to simultaneously take in order to enroll in another course.

"Advisory" means a condition of enrollment that students are advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

Course Hours

Each course description lists approved course hours as the total number of lecture, laboratory and/or activity hours for the semester. These hours do not include expected independent work/study done outside of class.

Course Grading

Most courses may be taken for a letter grade or on a pass/no pass basis at the student's discretion. Courses that are restricted to specific grading are identified as such at the end of the course description. Courses that must be taken for a letter grade are noted, "letter grade only;" courses that may only be taken on a pass/no pass basis are identified with, "pass/no pass grading." If no such identification is listed, students have the option to choose, within published deadlines, the type of grading. No more than one course may be taken on a pass/no pass basis per term.

Course Repeatability

Courses that are designated as repeatable are identified as such at the end of the course description, e.g., may be taken three times for credit. If no such notation is included, the course is not considered repeatable.

Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number at the end of a course description signals that participating California community colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example SOCI 0110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID SOCI 0110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. Students should always go to www.assist.org (http://www.assist.org) to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Independent Study Courses
0028 Independent Study
Units: 1-3

Transfer Status: Transferable to CSU, UC-with limitation[1]

Hours to Complete Course: 54 hours per unit. Independent study courses may be taken one time for credit per discipline.

Objectives: These courses are designed for students interested in furthering their knowledge, at an independent study level, in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects and research projects.

Enrollment Procedures:

1. Request a Sierra College Independent Study Project form from the appropriate division office;
2. Contact the appropriate professor for approval;
3. Submit the completed Independent Study Project form to the division dean for approval and issuance of an add code;
4. If approved, students will be notified by the division office.

Internship Courses
0095 Internship
Units: 0.5-4

Transfer Status: Transferable to CSU-with limitation[2]

Hours to Complete Course: One unit of credit is equal to 54 hours of work.

Objectives: Occupational Work Experience is designed for advanced students to expand their knowledge and skills in an area related to their college major.

Limitations: Students may earn up to a total of 16 units in internship courses (any course numbered 0095 and PDEV 0094).

Enrollment Procedures: Students must be continuing Sierra College students, have a minimum 2.0 GPA and attend a mandatory orientation. A written instructional agreement must be developed between the instructor, supervisor and student before the student is approved as an intern. Although some sites offer a wage or a stipend as compensation, most internships are unpaid.

[1]

Transfer credit for these courses is given only after a review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty.

[2]

Total of all internship units transferred to CSU may not exceed 16.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 4.

Limitations on Active Participatory Courses

Courses formerly designated as repeatable "activity" courses are now defined as non-repeatable "active participatory courses." These courses have individual study or group assignments as the basic means by which learning objectives are obtained. Active participatory courses in physical education, visual arts, and performing arts that are related in

content include groups of distinct courses with similar primary educational activities that have been separated into skill levels or variations and are separated with different student learning objectives or outcomes for each level or variation.

Students are limited to a maximum of four enrollments within each of these course groupings, also known as course families, regardless of the number of courses included in each family. This limitation applies retroactively to all prior enrollments in courses now included in a family; applies even if students receive substandard grades or withdrawals for one or more of the enrollments; and applies to re-enrollments due to extenuating circumstances.

Applied Art and Design Families

Code	Title	Units
AAD Design Fundamentals		
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD Digital Product Development		
AAD 0087	Content Management Systems for Designers	
AAD 0090	Interaction Design for Web Products	
AAD Front End Web Development		
AAD 0085	Introduction to Web Design	
AAD 0086	Intermediate Web Design	
AAD Graphic Design		
AAD 0061	Graphic Design III: Branding and Production	
AAD 0062	Digital Illustration	
AAD Illustration and Drawing		
AAD 0044	Sketching for Design	
AAD 0055	Illustration (also known as ART 0055)	
AAD Publication Design		
AAD 0052	Publication Design I	
AAD 0053	Publication Design II	
AAD 0054	Typography	
AAD Video		
AAD 0079	Introduction to Digital Filmmaking and Video Production	
AAD 0082	Intermediate Digital Filmmaking	
AAD 0093	Introduction to Motion Graphics	
AAD 0089	Documentary Filmmaking (also known as PHOT 0089)	

Art Families

Code	Title	Units
ART Alternate Materials		
ART 0032A	Fiber Arts I	
ART 0034	Collage and Assemblage	
ART Ceramics		
ART 0017	Ceramic Sculpture/Handbuilding	
ART 0018A	Ceramics I	
ART 0018B	Ceramics II	
ART 0020	Raku Ceramics	
ART Drawing		
ART 0004A	Drawing I	
ART 0004B	Drawing II	
ART Figure Drawing		
ART 0005A	Figure Drawing I	
ART 0005B	Figure Drawing II	
ART 0052	Portrait Drawing and Painting	
ART Metal		
ART 0022	Metal Arts	
ART 0024	Advanced Metal Arts	
ART 0041	Introduction to Jewelry and Metalsmithing	
ART Oil and Acrylic Painting		
ART 0007A	Oil Painting I	
ART 0007B	Oil Painting II	
ART 0009A	Acrylic Painting I	
ART 0009B	Acrylic Painting II	
ART Watercolor Painting		
ART 0008A	Watercolor Painting I	
ART 0008B	Watercolor Painting II	
ART Printmaking		
ART 0040A	Printmaking I	
ART 0040B	Printmaking II	
ART Sculpture		
ART 0012A	Sculpture I	
ART 0012B	Sculpture II	
ART 0019	Figure Sculpture	
ART Visual Art Fundamentals		
ART 0002	Two-Dimensional Design Foundations	
ART 0003	Three-Dimensional Design Foundations	
ART 0006C	Color Theory	

Kinesiology Families

Code	Title	Units
KIN Adapted		
KIN 0071	Adapted Aquatics	
KIN 0072	Adapted Aerobic Fitness	
KIN 0073	Adapted Individualized Exercises	
KIN Aerobic Fitness - Resistance		
KIN 0006	Physical Fitness	
KIN 0007	Aerobic Fitness	
KIN 0009	Cardio Kickboxing	
KIN 0040	Water Exercise for Fitness	
KIN 0069	Mat Pilates	
KIN Aerobic Training - Weights		
KIN 0003A	Cardio Fitness - Level I	
KIN 0003B	Cardio Fitness - Level II	
KIN Ballet		
KIN 0050A	Ballet I	
KIN 0050B	Ballet II	
KIN Basketball		

KIN 0027	Recreational Basketball
KIN 0096	Sports Activities

KIN Country Dance

KIN 0055	Line Dance

KIN Instruction

KIN 0011	Instructional Methods for Group Fitness
KIN 0012	Instructional Methods for Personal Trainers

KIN Pickleball

KIN 0036A	Beginning Pickleball
KIN 0036B	Intermediate Pickleball

KIN Self Defense

KIN 0018	Peaceful Self Defense
KIN 0019	Basic Self Defense
KIN 0020	Multi Self Defense System
KIN 0024	Self-Defense for Personal Safety

KIN Soccer

KIN 0031A	Soccer Level I
KIN 0031B	Soccer Level II
KIN 0035A	Futsal - Level I
KIN 0035B	Futsal - Level II

KIN Swimming

KIN 0041	Fundamentals of Swimming
KIN 0042	Swimming Conditioning

KIN Volleyball

KIN 0033	Volleyball
KIN 0034	Beach Volleyball

KIN Weight Training

KIN 0004	Cross Training
KIN 0005A	Weight Training
KIN 0005B	Strength Training - Circuit and Power Lifting
KIN 0005C	Weight Training - Advanced

KIN Wellness

KIN 0010	Fitness and Improved Health Boot Camp
KIN 0068	Introduction to Meditation

Music Families

Code	Title	Units
MUS Ear Training		
MUS 0003A	Ear Training I	
MUS 0003B	Ear Training II	
MUS 0004A	Advanced Ear Training I	
MUS 0004B	Advanced Ear Training II	
MUS Guitar		
MUS 0057A	Beginning Guitar	
MUS 0057B	Beginning Guitar	
MUS 0058A	Intermediate Guitar	
MUS 0058B	Intermediate Guitar	
MUS Music Production		
MUS 0014	Introduction to Commercial Music Production	
MUS 0015	Audio Recording	
MUS 0016	Media Content and Public Event Technology	
MUS 0018	Live Sound	
MUS Piano		
MUS 0040A	Beginning Piano I	
MUS 0040B	Beginning Piano II	
MUS 0040C	Intermediate Piano I	
MUS 0040D	Intermediate Piano II	
MUS Voice		
MUS 0039A	Beginning Voice	
MUS 0039B	Intermediate Voice	
MUS 0039C	Advanced Voice I	
MUS 0039D	Advanced Voice II	

Photography Families

Code	Title	Units
PHOT Alternative Processes		
PHOT 0092	Alternative Processes	
PHOT 0093	Advanced Alternative Processes	
PHOT Commercial Photography		
PHOT 0070A	Studio Lighting	
PHOT 0070B	Advanced Studio Lighting	
PHOT Digital Imaging		
PHOT 0075	Introduction to Photoshop (also known as AAD 0075)	
PHOT 0076	Advanced Projects in Photoshop (also known as AAD 0076)	
PHOT Digital Photography		
PHOT 0063	Digital Photography	
PHOT 0080	Color Photography	
PHOT Documentary Photography		
PHOT 0065	Documentary Photography	
PHOT 0090J	Photojournalism Field Workshop	
PHOT Field Workshops: Outdoor		
PHOT 0090L	Field Workshop: Landscape	
PHOT 0090N	Color Nature Photography Field Workshop	
PHOT 0090T	Field Workshop: Travel Photography	
PHOT Photography Foundations		
PHOT 0060A	Beginning Photography	
PHOT 0060B	The Creative Image	
PHOT Portrait Photography		
PHOT 0090P	Outdoor Portrait Workshop	
PHOT 0090W	Wedding and Event Photography Field Workshop	
PHOT Technical Photography		
PHOT 0090I	Night Photography Field Workshop	
PHOT 0090U	Drone Photography and Videography	

Theatre Arts Families

Code	Title	Units
THEA Costuming		
THEA 0016B	Costume Construction	
THEA 0017	Stage Makeup	
THEA Performance Cast		
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
THEA Production Crew		
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA Stagecraft		
THEA 0014	Stagecraft	
THEA 0019A	Stage Properties	
THEA 0019B	Scenic Painting	

Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) (https://c-id.net/) is a statewide numbering system, signaling that participating California community colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses. The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Students should always go to www.assist.org (http://www.assist.org) to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

C-ID Number	Sierra College Course
ACCT 110	BUS 0201 and BUS 0202
ACCT 120	BUS 0203
AG-AS 104	AGRI 0200
AG-PS 106 106 L	BIOL 0021
AG-PS 106 106 L	AGRI 0156
AG-PS 128 L	AGRI 0221
AG-AS 132 L	AGRI 0203
AJ 110	ADMJ 0050
AJ 120	ADMJ 0055
AJ 122	ADMJ 0052
AJ 124	ADMJ 0056
AJ 140	ADMJ 0054
AJ 160	ADMJ 0058
AJ 200	ADMJ 0062
AJ 220	ADMJ 0057

ANTH 110	ANTH 0001
ANTH 115L	ANTH 0001L
ANTH 120	ANTH 0002
ANTH 130	ANTH 0006
ANTH 150	ANTH 0005
ARTH 100	ARHI 0101
ARTH 110	ARHI 0110
ARTH 120	ARHI 0120 and ARHI 0130
ARTH 130	ARHI 0150
ARTH 140	ARHI 0140
ARTS 100	ART 0002
ARTS 101	ART 0003
ARTS 110	ART 0004A
ARTS 200	ART 0005A
ARTS 205	ART 0004B
ARTS 210	ART 0008A
ARTS 210	ART 0009A
ARTS 220	ART 0040A
ARTS 250	AAD 0070
ARTS 270	ART 0006C
ARTS 282	ART 0032A
BIOL 110B	BIOL 0005
BIOL 120B	BIOL 0006
BIOL 135S	BIOL 0001, BIOL 0002, and BIOL 0003
BIOL 150	BIOL 0003
BIOL 155	BIOL 0002
BIOL 190	BIOL 0001
BUS 110	BUS 0260
BUS 115	BUS 0265
BUS 120	BUS 0271
BUS 125	BUS 0270
BUS 140	IT 0015
CDEV 100	HDEV 0009
CDEV 110	HDEV 0004
CHEM 101	CHEM 0002A
CHEM 102	CHEM 0002B
CHEM 110	CHEM 0001A
CHEM 110	CHEM 0003A and CHEM 0003B
CHEM 120S	CHEM 0001A and CHEM 0001B
CHEM 120S	CHEM 0003A, CHEM 0003B, and CHEM 0001B
CHEM 140	CHEM 0140
CHEM 150	CHEM 0012A
CHEM 160S	CHEM 0012A and CHEM 0012B
COMM 110	COMM 0001
COMM 115	BUS 0266
COMM 115	COMM 0005
COMM 120	COMM 0002
COMM 130	COMM 0008
COMM 140	COMM 0003
COMM 150	COMM 0007

COMM 170	COMM 0006	GEOG 115	GEOG 0001 and GEOG 0001L
COMM 180	COMM 0010	GEOG 120	GEOG 0002
COMP 122	CSCI 0012	GEOG 125	GEOG 0005
COMP 132	CSCI 0013	GEOG 130	GEOG 0004
COMP 142	CSCI 0039	GEOG 140	GEOG 0003
COMP 152	CSCI 0026	GEOG 155	GEOG 0090
ECE 120	HDEV 0002	GEOG 160	GEOG 0016
ECE 130	HDEV 0005	GEOL 100	ESCI 0001
ECE 200	HDEV 0003	GEOL 100L	ESCI 0001L
ECE 210	HDEV 0010 and HDEV 0010L	GEOL 110	ESCI 0003
ECE 220	HDEV 0007	GEOL 110L	ESCI 0003L
ECE 230	HDEV 0025	GEOL 120	ESCI 0010
ECON 201	ECON 0001B	GEOL 120L	ESCI 0010L
ECON 202	ECON 0001A	GEOL 200	ESCI 0002
EDUC 200	EDU 0010	HIST 130	HIST 0017A
ENGL 100	ENGL 0001A	HIST 140	HIST 0017B
ENGL 105	ENGL 0001C	HIST 150	HIST 0050
ENGL 120	ENGL 0001B	HIST 160	HIST 0051
ENGL 130	ENGL 0030A	HIST 170	HIST 0004A
ENGL 135	ENGL 0030B	HIST 180	HIST 0004B
ENGL 140	ENGL 0047A	HOSP 100	RECM 0100
ENGL 145	ENGL 0047B	HOSP 120	RECM 0120
ENGL 160	ENGL 0046A	HOSP 140	RECM 0084
ENGL 165	ENGL 0046B	ITIS 110	IT 0100
ENGL 180	ENGL 0044	ITIS 120	IT 0015
ENGL 180	HDEV 0044	ITIS 150	IT 0105
ENGL 200	ENGL 0019	ITIS 155	IT 0115
ENGR 110	ENGR 0110	ITIS 160	IT 0120
ENGR 130	ENGR 0130	ITIS 165	ADMJ 0088
ENGR 150	ENGR 0151	ITIS 165	IT 0165
ENGR 180	ENGR 0180	ITIS 180	IT 0055
ENGR 220	ENGR 0220	JOUR 100	COMM 0070
ENGR 230	ENGR 0230	JOUR 110	COMM 0071
ENGR 260	ENGR 0260	JOUR 120	COMM 0072
ENGR 260 L	ENGR 0260L	JOUR 130	COMM 0078
ENVS 100	ESS 0001	JOUR 131	COMM 0079
FIRE 100X	FIRE 0001	JOUR 170	COMM 0012
FIRE 110X	FIRE 0005	JOUR 170	AAD 0012
FIRE 120X	FIRE 0004	KIN 100	KIN 0081
FIRE 130X	FIRE 0008	KIN 101	HED 0001
FIRE 140X	FIRE 0003	MATH 110	MATH 0011
FIRE 150X	FIRE 0010	MATH 110	MATH 0013
FIRE 160X	FIRE 0078	MATH 110	PSYC 0142
FIRE 200X	FIRE 0174	MATH 120	MATH 0019
FIRE 210X	FIRE 0175	MATH 140	MATH 0042
FIRE 220X	FIRE 0176	MATH 210	MATH 0030
FIRE 231X	FIRE 0241	MATH 220	MATH 0031
FIRE 232X	FIRE 0173	MATH 230	MATH 0032
FIRE 241X	FIRE 0172	MATH 900S	MATH 0030 and MATH 0031
FIRE 251X	FIRE 0097	MATH 910S	MATH 0033
GEOG 110	GEOG 0001	MUS 100	MUS 0002
GEOG 111	GEOG 0001L	MUS 120	MUS 0006A

MUS 125	MUS 0003A	SJS 130	LGBT 0001
MUS 130	MUS 0006B	SJS 130	WMST 0002
MUS 135	MUS 0003B	SOCI 110	SOC 0001
MUS 140	MUS 0009A	SOCI 115	SOC 0002
MUS 145	MUS 0004A	SOCI 125	PSYC 0142
MUS 150	MUS 0009B	SOCI 125	SOC 0015
MUS 155	MUS 0004B	SOCI 130	HDEV 0022
MUS 160	MUS 0051	SOCI 130	SOC 0004
MUS 180	MUS 0042	SOCI 140	SOC 0027
MUS 180	MUS 0046	SOCI 150	SOC 0003
MUS 180	MUS 0047	SOCI 160	SOC 0009
MUS 180	MUS 0048	SPAN 100	SPAN 0001
MUS 180	MUS 0049	SPAN 110	SPAN 0002
MUS 180	MUS 0050	SPAN 200	SPAN 0003
MUS 180	MUS 0054	SPAN 210	SPAN 0004
NUTR 110	NUTF 0010	THTR 111	THEA 0013
NUTR 120	NUTF 0005	THTR 114	THEA 0021
PH 101	HED 0101	THTR 151	THEA 0010A
PH 102	HED 0102	THTR 152	THEA 0010B
PH 113	HED 0113	THTR 171	THEA 0014
PHIL 100	PHIL 0006	THTR 173	THEA 0015
PHIL 110	PHIL 0004	THTR 175	THEA 0017
PHIL 120	BUS 0210	THTR 191	THEA 0023A
PHIL 120	PHIL 0002	THTR 191	THEA 0023B
PHIL 120	PHIL 0210	THTR 191	THEA 0023C
PHIL 130	PHIL 0020	THTR 191	THEA 0023D
PHIL 140	PHIL 0021	THTR 192	THEA 0022A
PHIL 210	PHIL 0012	THTR 192	THEA 0022B
PHYS 100S	PHYS 0105, PHYS 0105L, PHYS 0110, and PHYS 0110L	THTR 192	THEA 0022C
PHYS 105	PHYS 0105 and PHYS 0105L	THTR 192	THEA 0022D
PHYS 110	PHYS 0110 and PHYS 0110L	THTR 192	THEA 0024
PHYS 140	PHYS 0140	WELD 101 X	WELD 0005A
PHYS 205	PHYS 0205 and PHYS 0205L		
PHYS 210	PHYS 0210 and PHYS 0210L		
PHYS 215	PHYS 0215 and PHYS 0215L		
POLS 110	POLS 0001		
POLS 120	POLS 0016		
POLS 130	POLS 0002		
POLS 140	POLS 0003		
POLS 160	POLS 0017		
PSY 110	PSYC 0100		
PSY 115	PSYC 0106		
PSY 120	PSYC 0107		
PSY 130	PSYC 0130		
PSY 150	PSYC 0140		
PSY 170	PSYC 0103		
PSY 180	PSYC 0104		
PSY 200	PSYC 0200		
PSY 205B	PSYC 0105		
SJS 110	SOC 0110		
SJS 120	WMST 0001		

Transferable Courses to the CSU System

California State University Baccalaureate Level Course List 2025-2026

Code	Title	Units
Administration of Justice		
ADMJ 0028	Independent Study	
ADMJ 0050	Introduction to Administration of Justice	
ADMJ 0051	Traffic Investigations and Enforcement	
ADMJ 0052	Criminal Court Process	
ADMJ 0053	Police Field Operations	
ADMJ 0054	Introduction to Investigation	
ADMJ 0055	Concepts of Criminal Law	
ADMJ 0056	Introduction to Evidence	
ADMJ 0057	Juvenile Law and Procedure	
ADMJ 0058	Community and the Justice System	
ADMJ 0062	Introduction to Corrections	

ADMJ 0067	Managing the Adult Offender
ADMJ 0069	Institutional Corrections and Casework
ADMJ 0070	Substantive Law - Crimes and Punishments
ADMJ 0072	Illegal Drugs - Recognition and Influence
ADMJ 0073	Report Writing for Criminal Justice
ADMJ 0074	Digital Technology Used in Criminal Justice
ADMJ 0075	Values and Ethics in Criminal Justice
ADMJ 0076	Street and Prison Gangs
ADMJ 0077	Terrorist Tactics and the Role of the First Responder
ADMJ 0078	Introduction to Public Safety Dispatch (Also known as FIRE 0080, HSCI 0080)
ADMJ 0080	Introduction to Crime Scene Investigation
ADMJ 0095	Internship in Administration of Justice [1]

Advanced Manufacturing

ADVM 0001	Technical Drafting I
ADVM 0002	Technical Drafting II
ADVM 0011	Three-Dimensional Modeling
ADVM 0012	Geometric Dimensioning and Tolerancing
ADVM 0068	Advanced Mill 4th and 5th Axis

Agriculture

AGRI 0028	Independent Study
AGRI 0095	Internship in Agriculture [1]
AGRI 0156	Introduction to Plant Science (also known as BIOL 0021)
AGRI 0159	Integrated Pest Management
AGRI 0163	Wildland Trees and Shrubs (Dendrology)
AGRI 0164	Sustainable Tree Care
AGRI 0196	Introduction to Sustainable Agriculture
AGRI 0198	Food, Society and the Environment
AGRI 0200	Introduction to Animal Science
AGRI 0203	Animal Feeds and Nutrition
AGRI 0213	Agriculture Mechanics
AGRI 0215	Introduction to Agricultural Business and Economics
AGRI 0221	Introduction to Soil Science

Allied Health

ALH 0020	Introduction to Allied Health

Anthropology

ANTH 0001	Biological Anthropology
ANTH 0001L	Biological Anthropology Laboratory
ANTH 0002	Cultural Anthropology
ANTH 0004	Native Peoples of North America
ANTH 0005	Introduction to Archaeology
ANTH 0006	Introduction to Linguistic Anthropology
ANTH 0007	Native Peoples of California
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion
ANTH 0010	Introduction to Forensic Anthropology
ANTH 0014	Global Problems
ANTH 0027	Anthropology of Sex, Gender and Sexuality
ANTH 0028	Independent Study

Applied Art and Design

AAD 0012	Visual Communication (also known as COMM 0012)
AAD 0013	History of Graphic Design
AAD 0028	Independent Study
AAD 0044	Sketching for Design
AAD 0052	Publication Design I
AAD 0053	Publication Design II
AAD 0054	Typography
AAD 0055	Illustration (also known as ART 0055)
AAD 0060	Graphic Design I: Principles and Process
AAD 0061	Graphic Design III: Branding and Production
AAD 0062	Digital Illustration
AAD 0070	Graphic Design II: Introduction to Digital Design
AAD 0071	Introduction to Digital Painting (also known as ART 0071)
AAD 0073	Digital Art Studio: Concepts and Practices (also known as ART 0073)
AAD 0075	Introduction to Photoshop (also known as PHOT 0075)
AAD 0076	Advanced Projects in Photoshop (also known as PHOT 0076)
AAD 0079	Introduction to Digital Filmmaking and Video Production (also known as COMM 0031A)
AAD 0082	Intermediate Digital Filmmaking
AAD 0083	Introduction to Three-Dimensional Modeling
AAD 0085	Introduction to Web Design
AAD 0086	Intermediate Web Design
AAD 0087	Content Management Systems for Designers
AAD 0088	History of Filmmaking
AAD 0089	Documentary Filmmaking (also known as PHOT 0089)
AAD 0090	Interaction Design for Web Products
AAD 0093	Introduction to Motion Graphics
AAD 0094	Digital Animation
AAD 0095	Internship in Applied Art and Design [1]
AAD 0096	Portfolio Design
AAD 0097	Business Practices for Creative Professionals

Art

ART 0002	Two-Dimensional Design Foundations
ART 0003	Three-Dimensional Design Foundations
ART 0004A	Drawing I

ART 0004B	Drawing II	
ART 0005A	Figure Drawing I	
ART 0005B	Figure Drawing II	
ART 0006C	Color Theory	
ART 0007A	Oil Painting I	
ART 0007B	Oil Painting II	
ART 0008A	Watercolor Painting I	
ART 0008B	Watercolor Painting II	
ART 0009A	Acrylic Painting I	
ART 0009B	Acrylic Painting II	
ART 0012A	Sculpture I	
ART 0012B	Sculpture II	
ART 0017	Ceramic Sculpture/Handbuilding	
ART 0018A	Ceramics I	
ART 0018B	Ceramics II	
ART 0019	Figure Sculpture	
ART 0020	Raku Ceramics	
ART 0022	Metal Arts	
ART 0024	Advanced Metal Arts	
ART 0028	Independent Study	
ART 0032A	Fiber Arts I	
ART 0033	Art Metal Casting	
ART 0034	Collage and Assemblage	
ART 0040A	Printmaking I	
ART 0040B	Printmaking II	
ART 0041	Introduction to Jewelry and Metalsmithing	
ART 0052	Portrait Drawing and Painting	
ART 0055	Illustration (also known as AAD 0055)	
ART 0071	Introduction to Digital Painting (also known as AAD 0071)	
ART 0073	Digital Art Studio: Concepts and Practices (also known as ART 0073)	
ART 0095	Internship in Art [1]	

Art History

ARHI 0101	Art Appreciation	
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	Survey of Western Art II: Renaissance Traditions	
ARHI 0130	Survey of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History of Photography (also known as PHOT 0010)	
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	
ARHI 0142	History of Latinx and Chicanx Art	
ARHI 0150	History of Asian Art	
ARHI 0155	History of Islamic Art	

Astronomy

ASTR 0002	Introduction to Planetary Systems	
ASTR 0005	Introduction to Stars, Galaxies, and the Universe	
ASTR 0007	Life in the Universe	
ASTR 0010	Elementary Astronomy	
ASTR 0011	Observational Astronomy	
ASTR 0014	Astrophotography and Imaging	
ASTR 0025	Frontiers in Astronomy	
ASTR 0028	Independent Study	

Athletics

ATHL 0100	Baseball Training	
ATHL 0101	Basketball Training	
ATHL 0102	Cross Country Training	
ATHL 0105	Springboard Diving Training	
ATHL 0106	Football Training	
ATHL 0107	Golf Training	
ATHL 0109	Soccer Training	
ATHL 0110	Softball Training	
ATHL 0111	Swimming Training	
ATHL 0112	Tennis Training	
ATHL 0113	Track and Field Training	
ATHL 0116	Volleyball Training	
ATHL 0115	Beach Volleyball Training	
ATHL 0117	Water Polo Training	
ATHL 0118	Wrestling Training	
ATHL 0150	Intercollegiate Baseball (M)	
ATHL 0151	Intercollegiate Basketball (M)	
ATHL 0152	Intercollegiate Basketball (W)	
ATHL 0153	Intercollegiate Football (M)	
ATHL 0154	Intercollegiate Golf (M)	
ATHL 0155	Intercollegiate Golf (W)	
ATHL 0156	Intercollegiate Soccer (W)	
ATHL 0157	Intercollegiate Softball (W)	
ATHL 0158	Intercollegiate Swimming (M)	
ATHL 0159	Intercollegiate Swimming (W)	
ATHL 0161	Intercollegiate Tennis (W)	
ATHL 0162	Intercollegiate Volleyball (W)	
ATHL 0163	Intercollegiate Water Polo (M)	
ATHL 0164	Intercollegiate Water Polo (W)	
ATHL 0165	Intercollegiate Wrestling (M)	
ATHL 0166	Intercollegiate Beach Volleyball (W)	
ATHL 0167	Intercollegiate Cross Country (W)	
ATHL 0169	Intercollegiate Track and Field (W)	
ATHL 0199	Intercollegiate Sports Conditioning	

Automotive Technology

AUTO 0028	Independent Study	
AUTO 0095	Internship in Automotive Technology [1]	

Biological Sciences

BIOL 0001	General Biology	
BIOL 0002	Botany	
BIOL 0003	General Zoology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0005X	Success in Anatomy	
BIOL 0006	Human Physiology	

BIOL 0010	Introduction to Biology
BIOL 0011	Concepts of Biology
BIOL 0013	Field Methods in Ecology
BIOL 0014	Natural History, Ecology and Conservation (also known as ESS 0014)
BIOL 0015	Marine Biology
BIOL 0016A	Local Ecosystems of Placer County
BIOL 0016B	Local Ecosystems of Nevada County
BIOL 0016C	Vernal Pools and the California Prairie
BIOL 0016D	Biology of Waterfowl and Marsh Birds
BIOL 0016E	Ecology of the Sierran Conifer Forest
BIOL 0016G	Field Paleontology and Ancient Environments (also known as ESCI 0016G)
BIOL 0016H	Ecology of the Mendocino Coast
BIOL 0016I	Biology of Mono Lake and the Great Basin
BIOL 0016J	Ecology of Point Reyes National Seashore
BIOL 0016K	Foothill Ecology of the Sierra Nevada
BIOL 0016L	Aquatic and Riparian Environments of California Waterways
BIOL 0016M	Marine Mammals and Birds
BIOL 0016N	Ecology of the Modoc Plateau
BIOL 0016O	Ecology of the High Sierra and White-Inyo Mountains
BIOL 0016P	Ecology of Death Valley and Desert Ecosystems
BIOL 0016Q	Ecology of Mid-Western North America
BIOL 0016R	Canyon Lands of the Southwest
BIOL 0016T	Ecology of the Northern California Coast
BIOL 0016U	Ecology of the Central California Coast
BIOL 0016V	Ecology of Southern California Deserts
BIOL 0016W	Ecology of the Klamath and Southern Cascade Ranges
BIOL 0016Y	Ecology of National Parks and Wilderness Ecosystems
BIOL 0016Z	Ecology of the American River
BIOL 0017B	Ecology of the Sutter Buttes
BIOL 0021	Introduction to Plant Science (also known as AGRI 0156)
BIOL 0023	Wildflower Identification
BIOL 0024	Wildland Trees and Shrubs (Dendrology)
BIOL 0028	Independent Study
BIOL 0030	Introduction to Ornithology
BIOL 0033	Introduction to Zoology
BIOL 0035	Introduction to Entomology
BIOL 0036	Introduction to Mammalogy
BIOL 0055	General Human Anatomy and Physiology
BIOL 0056	Biology: A Human Perspective

BIOL 0056L	Biology: A Human Perspective Laboratory
BIOL 0095	Internship in Biological Sciences [1]
BIOL 0140	Organismal Biology

Building Industries

BI 0005	Introduction to the Built Environment
BI 0006	Introduction to Construction Management
BI 0007	Building with Green Construction Materials
BI 0008	Civil Applications of Computer-Aided Design
BI 0010	Architectural Drawing I
BI 0011	Architectural Drawing II
BI 0012	Architectural Drawing III-BIM (Building Information Modeling)
BI 0015	Managing the Computer-Aided Design (CAD) Environment
BI 0020	Foundations and Framing
BI 0022	Introduction to Energy Efficiency Construction
BI 0024	Fundamentals of Construction Documents and Estimating
BI 0026	Residential House Wiring and Codes
BI 0028	Independent Study
BI 0034	Plumbing and Mechanical Installation and Design
BI 0095	Internship in Building Industries

Business

BUS 0028	Independent Study
BUS 0095	Internship in Business
BUS 0159	Essential Skills - Soft Skills for a Changing World
BUS 0201	Financial Accounting I
BUS 0202	Financial Accounting II
BUS 0203	Managerial Accounting
BUS 0210	Ethical Studies in Business
BUS 0215	Personal Finance
BUS 0216	Investments
BUS 0220	Introduction to Federal Income Tax for Individuals
BUS 0241	Innovation Concepts for Starting a Small Business
BUS 0242	Entrepreneurship - Small Business Management
BUS 0250	Microsoft Applications for Business
BUS 0252	Excel for Business Applications
BUS 0260	Introduction to Business
BUS 0261	Customer Service Skills
BUS 0265	Business Communications
BUS 0266	Introduction to Oral Communication
BUS 0270	Business Law
BUS 0271	Law and Society
BUS 0273	International Business Practices

BUS 0275	Management Concepts and Applications
BUS 0276	Organizational Behavior and Human Relations
BUS 0277	Human Resource Management
BUS 0280	Introduction to Marketing
BUS 0282	Digital Marketing Essentials
BUS 0284	Selling Dynamics
BUS 0290	Real Estate Principles
BUS 0291	Real Estate Practice
BUS 0292	Legal Aspects of Real Estate

Chemistry

CHEM 0001A	General Chemistry I
CHEM 0001B	General Chemistry II
CHEM 0001X	Problem Solving for Chemistry 1A
CHEM 0001Y	Problem Solving for Chemistry 1B
CHEM 0002A	Introduction to Chemistry I
CHEM 0002B	Introduction to Chemistry II
CHEM 0002X	Problem Solving for Chemistry 2A
CHEM 0002Y	Problem Solving for Chemistry 2B
CHEM 0003A	General Chemistry I - Part 1
CHEM 0003B	General Chemistry I - Part 2
CHEM 0005	Chemistry - Quantitative Analysis
CHEM 0012A	Organic Chemistry I
CHEM 0012B	Organic Chemistry II
CHEM 0012X	Problem Solving for Chemistry 12A
CHEM 0012Y	Problem Solving for Chemistry 12B
CHEM 0028	Independent Study
CHEM 0095	Internship in Chemistry [1]
CHEM 0140	Survey of Chemistry and Physics

Communication Studies

COMM C1000	Introduction to Public Speaking
COMM 0002	Argumentation and Rhetorical Criticism
COMM 0003	Small Group Communication
COMM 0005	Communication Foundations
COMM 0006	Performance of Diverse Literatures
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Communication Theory, Methods, and Practice
COMM 0012	Visual Communication (also known as AAD 0012)
COMM 0028	Independent Study
COMM 0031A	Introduction to Digital Filmmaking and Video Production (also known as AAD 0079)
COMM 0070	Mass Communication: Media and Society
COMM 0071	Newswriting and Reporting Techniques
COMM 0072	Multimedia Reporting
COMM 0078	Media Production I
COMM 0079	Media Production II
COMM 0095	Internship in Communication Studies [1]

Computer Science

CSCI 0010	Introduction to Computing
CSCI 0012	Programming Concepts and Methodology I
CSCI 0013	Programming Concepts and Methodology II
CSCI 0014	Data Structures
CSCI 0026	Discrete Structures for Computer Science
CSCI 0027	Visual Basic .NET Programming I
CSCI 0028	Independent Study
CSCI 0039	Introduction to Computer Architecture and Assembly Language
CSCI 0046	System Programming with C
CSCI 0050	Introduction to Unix/Linux
CSCI 0052	Introduction to SQL
CSCI 0054	Visual Basic .NET Programming II
CSCI 0062	Web Programming I
CSCI 0066	Object-Oriented Programming Using C++
CSCI 0076A	Game Programming
CSCI 0095	Internship in Computer Science [1]

Deaf Studies

DFST 0001	American Sign Language I
DFST 0002	American Sign Language II
DFST 0003	American Sign Language III
DFST 0004	American Sign Language IV
DFST 0010	Introduction to Deaf Studies
DFST 0028	Independent Study
DFST 0095	Internship in Deaf Studies [1]

Earth Science

ESCI 0001	Physical Geology
ESCI 0001L	Physical Geology Laboratory
ESCI 0002	California Geology
ESCI 0003	Historical Geology
ESCI 0003L	Historical Geology Laboratory
ESCI 0007	Energy, Environment, and Climate (also known as ESS 0007)
ESCI 0010	Introduction to Earth Science
ESCI 0010L	Introduction to Earth Science Laboratory
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESCI 0016G	Field Paleontology and Ancient Environments (also known as BIOL 0016G)
ESCI 0028	Independent Study
ESCI 0050	Geology of National Parks and Monuments
ESCI 0054A	Sierra Nevada and Western Basin and Range Provinces
ESCI 0054B	Great Valley and Coast Range Provinces

ESCI 0054C	Great Valley, Coast Ranges, and Sutter Buttes
ESCI 0054D	Western Sierra Nevada and the Mother Lode
ESCI 0054E	Major Rock Units of the Northern Sierra
ESCI 0055A	Weekend Field Geology - Eastern Sierra
ESCI 0055B	Weekend Field Geology - Yosemite
ESCI 0055C	Weekend Field Geology - Point Reyes
ESCI 0055D	Weekend Field Geology - Southern Coast Range
ESCI 0055E	Weekend Geology and Volcanoes of Northeastern California
ESCI 0055F	Weekend Field Geology
ESCI 0056A	Field Geology of Western North America - Death Valley
ESCI 0056B	Field Geology of Western North America - Geology of Utah
ESCI 0056C	Field Geology of Western North America - Western Deserts
ESCI 0056D	Field Geology in the Sierra Nevada
ESCI 0056E	Geology of the Cascade Volcanoes
ESCI 0056F	Field Geology of Western North America
ESCI 0056G	Coastal Geology
ESCI 0095	Internship in Earth Science [1]

Economics

ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics
ECON 0028	Independent Study

Education

EDU 0007	Tutoring Elementary Students in Reading (also known as ENGL 0007)
EDU 0010	Introduction to Elementary Education with Field Experience
EDU 0028	Independent Study
EDU 0095	Internship in Education [1]

Engineering

ENGR 0028	Independent Study
ENGR 0095	Internship in Engineering [1]
ENGR 0101	Engineering Seminar
ENGR 0110	Introduction to Engineering Design
ENGR 0130	Statics
ENGR 0137	Manufacturing Processes
ENGR 0140B	Materials Science and Engineering
ENGR 0151	Engineering Graphics
ENGR 0180	Engineering Surveying
ENGR 0220	Programming and Problem Solving in Engineering
ENGR 0230	Dynamics
ENGR 0260	Electric Circuits
ENGR 0260L	Electric Circuits Laboratory

English

ENGL C1000	Academic Reading and Writing
ENGL C1001	Critical Thinking and Writing
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0002	Structure of English
ENGL 0011	Analytical and Critical Thinking in Reading
ENGL 0012	Writing in the Workplace
ENGL 0017	Introduction to Shakespeare and Popular Culture
ENGL 0016	Introduction to LGBTIQ Literature
ENGL 0018	Creative Writing (Non-Fiction)
ENGL 0019	Introduction to Creative Writing
ENGL 0020	Creative Writing (Poetry)
ENGL 0021	Creative Writing (Fiction)
ENGL 0024	Introduction to Literary Criticism and Critical Concepts
ENGL 0027	Literature by Women
ENGL 0028	Independent Study
ENGL 0029	Introduction to Drama as Literature
ENGL 0030A	American Literature - Beginnings through Civil War
ENGL 0030B	American Literature - Civil War to the Present
ENGL 0032	Introduction to Poetry
ENGL 0033	Introduction to Shakespeare (The Drama)
ENGL 0034	Introduction to the Novel
ENGL 0035	Introduction to the Short Story
ENGL 0037	American Film Masterpieces
ENGL 0038	International Film Masterpieces
ENGL 0040	The Filmed Novel
ENGL 0042	The Documentary Film
ENGL 0044	Children's Literature (also known as HDEV 0044)
ENGL 0045	Young Adult Literature
ENGL 0046A	English Literature
ENGL 0046B	English Literature
ENGL 0047A	World Literature
ENGL 0047B	World Literature
ENGL 0048	Literature of Science Fiction

English as a Second Language

ESL 0025C	Advanced Reading and Writing
ESL 0025G	Academic Grammar and Editing
ESL 0025L	Academic Listening and Speaking

Environmental Sciences and Sustainability

ESS 0001	Introduction to Environmental Sciences and Sustainability
ESS 0001L	Introduction to Environmental Science Laboratory
ESS 0006	The Sierra Nevada
ESS 0006F	Sierra Nevada Field Trip
ESS 0007	Energy, Environment, and Climate (also known as ESCI 0007)
ESS 0008	California Water
ESS 0010	Conservation of Natural Resources

ESS 0013	Environmental Regulations
ESS 0014	Natural History, Ecology and Conservation (also known as BIOL 0014)
ESS 0028	Independent Study
ESS 0095	Internship in Environmental Sciences and Sustainability [1]

Ethnic Studies

ETHN 0011	Introduction to Ethnic Studies
ETHN 0014	Introduction to Asian American Studies
ETHN 0020	Introduction to African American Studies
ETHN 0028	Independent Study
ETHN 0030	Introduction to Chicana/o Studies
ETHN 0045	Federal Indian Law and Policy
ETHN 0050	Ethnic Images in Film
ETHN 0053	Introduction to Native American Studies

Fashion

FASH 0001	Introduction to Fashion
FASH 0002	Fashion Analysis and Selection
FASH 0003	Textiles
FASH 0004A	Basic Clothing Construction
FASH 0004B	Intermediate Clothing Construction
FASH 0007	Fashion Promotion
FASH 0008	Fashion Illustration
FASH 0012	Fashion History
FASH 0013	Buying for the Fashion Industry
FASH 0014	Visual Merchandising
FASH 0015	Clothing and Culture
FASH 0017	Fashion Retailing
FASH 0018	Sustainability in Fashion
FASH 0019	Fashion Entrepreneurship
FASH 0028	Independent Study
FASH 0095	Internship in Fashion [1]

Fire Technology

Maximum 30 units of FIRE courses excluding FIRE 0095

FIRE 0001	Principles of Fire and Emergency Services
FIRE 0003	Fire Behavior and Combustion
FIRE 0004	Fire Protection Equipment and Systems
FIRE 0005	Fire Prevention Technology
FIRE 0007	Fundamentals of Fire Service Operations
FIRE 0008	Building Construction for Fire Protection
FIRE 0010	Principles of Fire and Emergency Services Safety and Survival
FIRE 0028	Independent Study
FIRE 0050	Basic Wildland Firefighter Training
FIRE 0073	Fire Hydraulics
FIRE 0074	Fire Apparatus and Equipment
FIRE 0075	Wildland Fire Control
FIRE 0078	Fire Tactics and Strategy

FIRE 0079	Fire Investigation
FIRE 0080	Introduction to Public Safety Dispatch (Also known as ADMJ 0078, HSCI 0080)
FIRE 0095	Internship in Fire Technology [1]
FIRE 0097	Ethical Leadership in the Classroom
FIRE 0100A	Fire Academy Physical Training
FIRE 0170	Hazardous Materials - Operational Level
FIRE 0174	Human Resource Management for Company Officers - CO 2A
FIRE 0175	General Administrative Functions for Company Officers - CO 2B
FIRE 0176	Fire Inspections and Investigation for Company Officers - CO 2C
FIRE 0177	All-Risk Command Operations for Company Officers - CO 2D
FIRE 0178	Wildland Incident Operations for Company Officers - CO 2E
FIRE 0179	Fire and Emergency Services Instructor 1
FIRE 0180	Fire and Emergency Services Instructor 2

French

FREN 0001	Elementary French - Level I
FREN 0002	Elementary French - Level II
FREN 0003	Intermediate French - Level I
FREN 0004	Intermediate French - Level II
FREN 0028	Independent Study

Geography

GEOG 0001	Physical Geography
GEOG 0001L	Physical Geography Laboratory
GEOG 0002	Cultural Geography
GEOG 0003	Geography of California
GEOG 0004	Weather and Climate
GEOG 0005	World Regional Geography
GEOG 0015	Field Geography - Northern California
GEOG 0016	Field Geography - Central California Coast
GEOG 0017	Field Geography - Greater Sierra Nevada & Lake Tahoe
GEOG 0028	Independent Study
GEOG 0085	Application of Geospatial Technologies
GEOG 0086	Global Positioning System (GPS) for GIS
GEOG 0090	Introduction to Geographic Information Systems (GIS)
GEOG 0091A	Beginning Geospatial Design
GEOG 0091B	Intermediate Geospatial Design
GEOG 0093	Advanced GIS
GEOG 0094	Geospatial Analysis
GEOG 0095	Internship in Geography [1]

German

GER 0001	Elementary German - Level I
GER 0002	Elementary German - Level II
GER 0028	Independent Study

Health Education

HED 0001	Standard First Aid/Community CPR
HED 0002	Health Education
HED 0010	Health and Aging

Health Sciences

HSCI 0002	Emergency Medical Technician
HSCI 0003	Medical Terminology
HSCI 0007	Emergency Medical Responder
HSCI 0030	Functional Anatomy and Pathophysiology For EMS Professionals
HSCI 0050	Introduction to Advanced Life Support
HSCI 0053	Paramedic - Advanced Life Support Part 1
HSCI 0054	Paramedic - Advanced Life Support Part 2
HSCI 0055	Paramedic Clinical Experience
HSCI 0056	Paramedic Field Internship
HSCI 0080	Introduction to Public Safety Dispatch (Also known as ADMJ 0078, FIRE 0080)

History

HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
HIST 0017A	History of the United States to 1877
HIST 0017B	History of the United States since 1865
HIST 0018A	The African American Experience in American History to 1877 (Also known as ETHN 0018A)
HIST 0018B	The African American Experience in American History since 1877 (Also known as ETHN 0018B)
HIST 0019A	History of Traditional East Asia
HIST 0019B	History of Modern East Asia
HIST 0020	California History
HIST 0021	Contemporary United States History
HIST 0022	American Military History
HIST 0023	Chicano/Mexican American History (Also known as ETHN 0023)
HIST 0024	Russian History - 10th Century to Present
HIST 0025	Native American History (Also known as ETHN 0025)
HIST 0026	Women in World History
HIST 0027	Women in American History
HIST 0028	Independent Study
HIST 0049	The American West
HIST 0050	World History to 1500
HIST 0051	World History since 1500
HIST 0095	Internship in History [1]

Human Development and Family

HDEV 0001	Human Development Through the Lifespan
HDEV 0002	Principles and Practices of Teaching Young Children
HDEV 0003	Observation and Assessment
HDEV 0004	Child, Family, and Community
HDEV 0005	Introduction to Curriculum
HDEV 0007	Health, Safety, and Nutrition
HDEV 0009	Child Growth and Development
HDEV 0010	Practicum Experience in Early Childhood Education
HDEV 0010L	Practicum Experience in Early Childhood Education Lab
HDEV 0011	Infant and Toddler Development
HDEV 0012	Infant/Toddler Care and Education
HDEV 0021	Psychology of Intimate Relationships and Family (also known as PSYC 0110)
HDEV 0022	The Family (also known as SOC 0004)
HDEV 0025	Teaching in a Diverse Society
HDEV 0027	Effective Classroom Management
HDEV 0028	Independent Study
HDEV 0030	Creative Process in Children
HDEV 0038	Adult Supervision and Mentoring in Early Care and Education
HDEV 0040	Administration I: Programs in Early Childhood Education
HDEV 0041	Personnel and Leadership in Early Childhood Education
HDEV 0044	Children's Literature (also known as ENGL 0044)
HDEV 0046	Language and Literacy
HDEV 0061	Nutrition Throughout the Life Cycle (also known as NUTF 0013)
HDEV 0095	Internship in Human Development and Family [1]

Humanities

HUM 0001	Introduction to Humanities I
HUM 0002	Introduction to Humanities II
HUM 0003	Introduction to Asian Humanities
HUM 0005	Classical Roots of the Contemporary Western World
HUM 0009	Introduction to Women, Gender and Religion (also known as WMST 0003)
HUM 0010	World Religions
HUM 0015	Introduction to Mythology
HUM 0017	Introduction to Atheism
HUM 0020	Introduction to the Hebrew Bible
HUM 0021	Introduction to the New Testament
HUM 0028	Independent Study
HUM 0095	Internship in Humanities [1]

Information Technology

IT 0015	Business Information Systems
IT 0028	Independent Study
IT 0055	Database Management
IT 0075	Python for Many Uses
IT 0080	IoT - Internet of Things
IT 0095	Internship in Information Technology

IT 0100	Information and Communication Technology Essentials
IT 0105	Computer Network Fundamentals
IT 0110	Installing, Configuring and Administering a Client OS
IT 0115	Server Systems Administration
IT 0120	Introduction to Information Systems Security
IT 0125	Switching, Routing and Wireless Essentials
IT 0130	Cisco CCNA 3 Enterprise Networking, Security and Automation
IT 0140	Implementing Network Security and Firewalls
IT 0145	Introduction to Cybersecurity: Ethical Hacking
IT 0150	Principles of Cybersecurity Analysis
IT 0165	Computer Forensics Fundamentals
IT 0170	AWS Cloud Foundations
IT 0171	CompTIA Cloud+ Computing Concepts and Practices
IT 0175	AWS Cloud Architecting
IT 0176	Cloud Computing - Amazon Web Services System Operations

Italian

ITAL 0001	Elementary Italian - Level I
ITAL 0002	Elementary Italian - Level II
ITAL 0028	Independent Study

Japanese

JPN 0001	Elementary Japanese - Level I
JPN 0002	Elementary Japanese - Level II
JPN 0028	Independent Study

Kinesiology

KIN 0003A	Cardio Fitness - Level I
KIN 0003B	Cardio Fitness - Level II
KIN 0004	Cross Training
KIN 0005A	Weight Training
KIN 0005B	Strength Training - Circuit and Power Lifting
KIN 0006	Physical Fitness
KIN 0007	Aerobic Fitness
KIN 0009	Cardio Kickboxing
KIN 0010	Fitness and Improved Health Boot Camp
KIN 0011	Instructional Methods for Group Fitness
KIN 0012	Instructional Methods for Personal Trainers
KIN 0018	Peaceful Self Defense
KIN 0019	Basic Self Defense
KIN 0020	Multi Self Defense System
KIN 0023	Tai Chi
KIN 0024	Self-Defense for Personal Safety
KIN 0026	Badminton

KIN 0027	Recreational Basketball
KIN 0028	Independent Study
KIN 0029	Flag Football
KIN 0030	Golf
KIN 0031A	Soccer Level I
KIN 0031B	Soccer Level II
KIN 0032	Tennis
KIN 0032B	Advanced Tennis
KIN 0033	Volleyball
KIN 0034	Beach Volleyball
KIN 0035A	Futsal - Level I
KIN 0035B	Futsal - Level II
KIN 0040	Water Exercise for Fitness
KIN 0041	Fundamentals of Swimming
KIN 0042	Swimming Conditioning
KIN 0050A	Ballet I
KIN 0050B	Ballet II
KIN 0051	Jazz Dance
KIN 0053	Ballroom Dance
KIN 0054	Modern Dance
KIN 0055	Line Dance
KIN 0062	Fundamentals of Yoga
KIN 0065	Yoga History and Culture
KIN 0066	Yoga Pedagogy Lecture
KIN 0070	Yoga Pedagogy Lab
KIN 0090	Introduction to Training and Conditioning for Sports
KIN 0095	Internship in Kinesiology
KIN 0100	Coaching the Young Athlete
KIN 0068	Introduction to Meditation
KIN 0069	Mat Pilates
KIN 0071	Adapted Aquatics
KIN 0072	Adapted Aerobic Fitness
KIN 0073	Adapted Individualized Exercises
KIN 0080	ACE Personal Trainer Preparation
KIN 0081	Introduction to Kinesiology
KIN 0082	Sports Officiating
KIN 0083	Physiology of Fitness
KIN 0084	Care and Prevention of Athletic Injuries
KIN 0086	Psychology of Sport
KIN 0087A	Theory of Baseball
KIN 0087B	Theory of Basketball
KIN 0087C	Theory of Football
KIN 0087D	Theory of Soccer
KIN 0087E	Theory of Softball
KIN 0087F	Theory of Volleyball
KIN 0088	Introduction to Coaching Team Sports
KIN 0096	Sports Activities
KIN 0101	Sport First Aid for Coaches

Lesbian, Gay, Bisexual and Transgender Studies

LGBT 0001	Introduction to LGBT Studies/Queer Theory (also known as WMST 0002)

LGBT 0002	Queer (LGBTIQ) Film History
LGBT 0028	Independent Study
LGBT 0095	Internship in LGBT Studies [1]

Library Science

LIBS 0028	Independent Study
LIBS 0095	Internship in Library Science [1]

Mathematics

MATH 0010	Problem Solving
MATH 0012	College Algebra
MATH 0015	Discrete Mathematics
MATH 0016A	Calculus for Social and Life Sciences
MATH 0016B	Calculus for Social and Life Sciences
MATH 0017	Concepts of Mathematics
MATH 0018	The Nature of Mathematics
MATH 0019	Mathematical Concepts for Elementary School Teachers
MATH 0024	Modern Business Mathematics
MATH 0027	Trigonometry
MATH 0028	Independent Study
MATH 0029	Pre-Calculus Mathematics
MATH 0030	Analytical Geometry and Calculus I
MATH 0030S	Just in Time Support for Math 30 Calculus I
MATH 0031	Analytical Geometry and Calculus II
MATH 0032	Analytical Geometry and Calculus III
MATH 0033	Differential Equations and Linear Algebra
MATH 0042	Business Calculus

Mechatronics

MECH 0001	The Science of Electronics
MECH 0004	Fundamentals of Mechatronics
MECH 0008	Introduction to Electronics
MECH 0010	Fundamentals of Electronics
MECH 0014	Fabrication Techniques
MECH 0025	Computers for Robotics and Automation
MECH 0028	Independent Study
MECH 0044	Mechatronic Processes and Materials
MECH 0054	Mechatronics Systems
MECH 0090	Microcontroller Embedded Systems
MECH 0095	Internship in Mechatronics [1]

Music

MUS 0002	Music Appreciation
MUS 0003A	Ear Training I
MUS 0003B	Ear Training II
MUS 0004A	Advanced Ear Training I
MUS 0004B	Advanced Ear Training II
MUS 0006A	Music Theory I
MUS 0006B	Music Theory II
MUS 0007	Composition with Electronic Media
MUS 0009A	Music Theory III
MUS 0009B	Music Theory IV
MUS 0010	Music Fundamentals

MUS 0011	Introduction and History of Jazz
MUS 0012A	Survey of Music History and Literature to 1750
MUS 0012B	Survey of Music History and Literature from 1750 to Present
MUS 0013	Introduction to Music: History of Rock and Roll
MUS 0014	Introduction to Commercial Music Production
MUS 0015	Audio Recording
MUS 0016	Media Content and Public Event Technology
MUS 0018	Live Sound
MUS 0024	Introduction to Music Cultures of the World
MUS 0095	Internship in Music
MUS 0025	Introduction to Entertainment Industry
MUS 0028	Independent Study
MUS 0029	Audiovisual Event Production
MUS 0039A	Beginning Voice
MUS 0039B	Intermediate Voice
MUS 0039C	Advanced Voice I
MUS 0039D	Advanced Voice II
MUS 0040A	Beginning Piano I
MUS 0040B	Beginning Piano II
MUS 0040C	Intermediate Piano I
MUS 0040D	Intermediate Piano II
MUS 0042	Chamber Singers
MUS 0046	Jazz Ensemble
MUS 0047	Vocal Jazz Ensemble
MUS 0048	Concert Choir
MUS 0049	Jazz Improvisation Performance Ensemble
MUS 0050	Wind Ensemble
MUS 0051	Applied Music
MUS 0054	Symphonic Band
MUS 0057A	Beginning Guitar
MUS 0057B	Beginning Guitar
MUS 0058A	Intermediate Guitar
MUS 0058B	Intermediate Guitar

Nursing, Registered

NRSR 0017	High-Risk Pediatric Nursing
NRSR 0021	Nursing Fundamentals and Geriatric Nursing
NRSR 0022	Medical Surgical I and Pediatric Nursing
NRSR 0023	Medical Surgical II and Mental Health Nursing
NRSR 0024	Advanced Medical Surgical and Maternal-Newborn Nursing
NRSR 0025	High Risk Obstetrical/Newborn Nursing

Nutrition and Food Science

NUTF 0005	Food Preparation for Nutrition and Life Fitness

NUTF 0010	Principles of Nutrition
NUTF 0013	Nutrition Throughout the Life Cycle (also known as HDEV 0061)
NUTF 0014	Sports Nutrition
NUTF 0028	Independent Study
NUTF 0095	Internship in Nutrition and Food Science [1]

Personal Development

PDEV 0001	College and Life Success
PDEV 0006	Career Planning
PDEV 0008	Introduction to College
PDEV 0009	Assertiveness Training
PDEV 0012	Peer Mentor Training
PDEV 0021	Career Exploration through Self Assessment
PDEV 0028	Independent Study
PDEV 0052	Student Leadership Development
PDEV 0070	Stress and Well Being
PDEV 0094	Career Exploration Internship [1]
PDEV 0095	Internship in Personal Development/ Human Services [1]

Philosophy

PHIL 0002	Introduction to Philosophy: Ethics
PHIL 0004	Introduction to Critical Thinking
PHIL 0006	Introduction to Philosophy: Knowledge and Reality
PHIL 0010	Philosophy of Religion
PHIL 0012	Introduction to Symbolic Logic
PHIL 0013	Introduction to Asian Philosophy
PHIL 0020	History of Ancient Greek Philosophy
PHIL 0021	History of Modern Philosophy
PHIL 0027	Introduction to Philosophy of Women in Western Cultures
PHIL 0028	Independent Study
PHIL 0030	Introduction to Social and Political Philosophy
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science

Photography

PHOT 0010	History of Photography (also known as ARHI 0134)
PHOT 0028	Independent Study
PHOT 0060A	Beginning Photography
PHOT 0060B	The Creative Image
PHOT 0063	Digital Photography
PHOT 0065	Documentary Photography
PHOT 0070A	Studio Lighting
PHOT 0070B	Advanced Studio Lighting
PHOT 0075	Introduction to Photoshop (also known as AAD 0075)
PHOT 0076	Advanced Projects in Photoshop (also known as AAD 0076)
PHOT 0080	Color Photography

PHOT 0088	Business Practices for Photographers
PHOT 0089	Documentary Filmmaking (also known as AAD 0089)
PHOT 0090I	Night Photography Field Workshop
PHOT 0090J	Photojournalism Field Workshop
PHOT 0090L	Field Workshop: Landscape
PHOT 0090N	Color Nature Photography Field Workshop
PHOT 0090P	Outdoor Portrait Workshop
PHOT 0090T	Field Workshop: Travel Photography
PHOT 0090U	Drone Photography and Videography
PHOT 0090W	Wedding and Event Photography Field Workshop
PHOT 0092	Alternative Processes
PHOT 0093	Advanced Alternative Processes
PHOT 0095	Internship in Photography [1]

Physics

PHYS 0010	Basic Concepts in Physics
PHYS 0010L	Basic Concepts in Physics Laboratory
PHYS 0028	Independent Study
PHYS 0105	General Physics I
PHYS 0105L	General Physics I Laboratory
PHYS 0110	General Physics II
PHYS 0110L	General Physics II Laboratory
PHYS 0205	Principles of Physics: Mechanics
PHYS 0140	Survey of Chemistry and Physics
PHYS 0205L	Principles of Physics Laboratory: Mechanics
PHYS 0210	Principles of Physics: Electricity and Magnetism
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism
PHYS 0210R	Problem Solving for Physics 210
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics
PHYS 0215R	Problem Solving for Physics 215

Political Science

POLS C1000	American Government and Politics
PSYC C1000	Introduction to Psychology
POLS 0028	Independent Study
POLS 0002	Introduction to Comparative Government
POLS 0003	Introduction to International Relations
POLS 0004	Russian and East European Political Systems
POLS 0005	California Politics and Government
POLS 0007	Politics of the Developing World
POLS 0008	American Foreign Policy
POLS 0009	Politics of the Middle East
POLS 0012	Terrorism
POLS 0016	Introduction to Political Theory

POLS 0017	Introduction to Political Science Research Methods	
POLS 0018	California Government	
POLS 0027	Women and Politics in a Global Society	
POLS 0095	Internship in Political Science	

Psychology

PSYC 0028	Independent Study
PSYC 0102	Navigating Psychology: The Major and Careers
PSYC 0103	Social Psychology
PSYC 0104	Developmental Psychology
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0107	Abnormal Psychology
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Intimate Relationships and Family (also known as HDEV 0021)
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0140	Introduction to Biopsychology
PSYC 0140L	Biopsychology Laboratory
PSYC 0142	Introduction to Psychological Statistics
PSYC 0150	Alcohol, Drugs and Society
PSYC 0160	Psychology and Film
PSYC 0180	Cultural Psychology
PSYC 0200	Introduction to Research Methods in Psychology

Recreation Management

RECM 0010	Foundations of Recreation, Parks, and Tourism Management
RECM 0020	Program Planning and Event Management
RECM 0030	Leadership in Recreation, Parks, and Tourism Management
RECM 0040	Leisure Aspects of the Hospitality Industry
RECM 0070	Backpacking
RECM 0071	Rock Climbing
RECM 0072	Wilderness Survival
RECM 0095	Internship in Recreation Management [1]

Rise

RISE 0001	First Year Seminar

Skill Development

SKDV 0001	Techniques of Tutoring
SKDV 0010	How to be a Successful Online Student
SKDV 0020	Information Literacy and Research Skills
SKDV 0028	Independent Study

Sociology

SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0004	The Family (also known as HDEV 0022)
SOC 0005	Sociology of Women's Health

SOC 0009	Introduction to Crime, Deviance, and Social Control
SOC 0010	Feminism and Social Action (also known as WMST 0004)
SOC 0015	Introduction to Statistics in Sociology
SOC 0027	Sociology of Gender
SOC 0047	Introduction to Hip Hop and Social Justice (Also known as ETHN 0047)
SOC 0028	Independent Study
SOC 0095	Internship in Sociology [1]
SOC 0110	Introduction to Social Justice

Spanish

SPAN 0001	Elementary Spanish - Level I
SPAN 0002	Elementary Spanish - Level II
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
SPAN 0017	Intermediate Conversational Spanish
SPAN 0019	Spanish for Public Safety
SPAN 0020	Spanish for the Healthcare Professions
SPAN 0028	Independent Study

Statistics

STAT C1000	Introduction to Statistics

Theatre Arts

THEA 0010A	Acting I
THEA 0010B	Acting II
THEA 0011	Stage Movement
THEA 0013	Introduction to Theatre
THEA 0014	Stagecraft
THEA 0015	Stage Lighting
THEA 0016A	Costume History
THEA 0016B	Costume Construction
THEA 0017	Stage Makeup
THEA 0018	Acting for Musical Theatre
THEA 0019A	Stage Properties
THEA 0019B	Scenic Painting
THEA 0021	Script Analysis
THEA 0022A	Production Crew I
THEA 0022B	Production Crew II
THEA 0022C	Production Crew III
THEA 0022D	Production Crew IV
THEA 0023A	Rehearsal and Performance - Cast I
THEA 0023B	Rehearsal and Performance - Cast II
THEA 0023C	Rehearsal and Performance - Cast III
THEA 0023D	Rehearsal and Performance - Cast IV
THEA 0024	Stage Management
THEA 0028	Independent Study
THEA 0029	One Act Workshop
THEA 0030	Diversity in American Theatre
THEA 0095	Internship in Theatre Arts

Welding Technology

WELD 0001A	Introduction to Welding and Fabrication
WELD 0003A	Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate

WELD 0003B	Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate
WELD 0011	Welding Metallography
WELD 0015A	Manual Metal Arc Welding on Pipe Level 1
WELD 0015B	
WELD 0028	Independent Study
WELD 0095	Internship in Welding Technology [1]

Women and Gender Studies

WMST 0001	Introduction to Women's Studies
WMST 0002	Introduction to LGBT Studies/Queer Theory (also known as LGBT 0001)
WMST 0003	Introduction to Women, Gender and Religion (also known as HUM 0009)
WMST 0004	Feminism and Social Action (also known as SOC 0010)
WMST 0006	Introduction to Disability Studies
WMST 0095	Internship in Women and Gender Studies

[1]

Total of all Internship courses (any course numbered 0095 and PDEV 0094) to be credited may not exceed 16 units.

Transferable Courses to the UC System

University of California Transfer Course Agreement 2025-2026

Code	Title	Units
Administration of Justice		
ADMJ 0050	Introduction to Administration of Justice	
ADMJ 0055	Concepts of Criminal Law	
ADMJ 0058	Community and the Justice System	
Agriculture		
AGRI 0028	Independent Study [1]	
AGRI 0156	Introduction to Plant Science	
AGRI 0196	Introduction to Sustainable Agriculture	
AGRI 0198	Food, Society and the Environment	
AGRI 0200	Introduction to Animal Science	
AGRI 0215	Introduction to Agricultural Business and Economics	
AGRI 0221	Introduction to Soil Science	
Anthropology		
ANTH 0001	Biological Anthropology	
ANTH 0001L	Biological Anthropology Laboratory	
ANTH 0002	Cultural Anthropology	
ANTH 0004	Native Peoples of North America	
ANTH 0005	Introduction to Archaeology	
ANTH 0006	Introduction to Linguistic Anthropology	
ANTH 0007	Native Peoples of California	

ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion
ANTH 0010	Introduction to Forensic Anthropology
ANTH 0014	Global Problems
ANTH 0027	Anthropology of Sex, Gender and Sexuality
ANTH 0028	Independent Study [1]
Applied Art and Design	
AAD 0012	Visual Communication
AAD 0013	History of Graphic Design
AAD 0028	Independent Study [1]
AAD 0062	Digital Illustration
AAD 0070	Graphic Design II: Introduction to Digital Design
AAD 0073	Digital Art Studio: Concepts and Practices
AAD 0075	Introduction to Photoshop
AAD 0088	History of Filmmaking
AAD 0089	Documentary Filmmaking
AAD 0093	Introduction to Motion Graphics
Art	
ART 0002	Two-Dimensional Design Foundations
ART 0003	Three-Dimensional Design Foundations
ART 0004A	Drawing I
ART 0004B	Drawing II
ART 0005A	Figure Drawing I
ART 0005B	Figure Drawing II
ART 0006C	Color Theory
ART 0007A	Oil Painting I
ART 0007B	Oil Painting II
ART 0008A	Watercolor Painting I
ART 0008B	Watercolor Painting II
ART 0009A	Acrylic Painting I
ART 0009B	Acrylic Painting II
ART 0012A	Sculpture I
ART 0012B	Sculpture II
ART 0017	Ceramic Sculpture/Handbuilding
ART 0018A	Ceramics I
ART 0018B	Ceramics II
ART 0019	Figure Sculpture
ART 0020	Raku Ceramics
ART 0028	Independent Study [1]
ART 0032A	Fiber Arts I
ART 0040A	Printmaking I
ART 0040B	Printmaking II
ART 0052	Portrait Drawing and Painting
ART 0073	Digital Art Studio: Concepts and Practices
Art History	
ARHI 0101	Art Appreciation
ARHI 0110	Survey of Western Art I: Prehistory through the Middle Ages

ARHI 0120	Survey of Western Art II: Renaissance Traditions
ARHI 0130	Survey of Western Art III: Modern through Contemporary
ARHI 0132	History of Women in Art
ARHI 0134	History of Photography
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania
ARHI 0142	History of Latinx and Chicanx Art
ARHI 0150	History of Asian Art
ARHI 0155	History of Islamic Art

Astronomy

ASTR 0002	Introduction to Planetary Systems
ASTR 0005	Introduction to Stars, Galaxies, and the Universe
ASTR 0007	Life in the Universe
ASTR 0010	Elementary Astronomy
ASTR 0011	Observational Astronomy
ASTR 0014	Astrophotography and Imaging
ASTR 0025	Frontiers in Astronomy
ASTR 0028	Independent Study [1]

Athletics

ATHL 0100	Baseball Training [2]
ATHL 0101	Basketball Training [2]
ATHL 0102	Cross Country Training [2]
ATHL 0105	Springboard Diving Training [2]
ATHL 0106	Football Training [2]
ATHL 0107	Golf Training [2]
ATHL 0109	Soccer Training [2]
ATHL 0110	Softball Training [2]
ATHL 0111	Swimming Training [2]
ATHL 0112	Tennis Training [2]
ATHL 0113	Track and Field Training [2]
ATHL 0116	Volleyball Training [2]
ATHL 0117	Water Polo Training [2]
ATHL 0118	Wrestling Training [2]
ATHL 0150	Intercollegiate Baseball (M) [2]
ATHL 0151	Intercollegiate Basketball (M) [2]
ATHL 0152	Intercollegiate Basketball (W) [2]
ATHL 0153	Intercollegiate Football (M) [2]
ATHL 0154	Intercollegiate Golf (M) [2]
ATHL 0155	Intercollegiate Golf (W) [2]
ATHL 0156	Intercollegiate Soccer (W) [2]
ATHL 0157	Intercollegiate Softball (W) [2]
ATHL 0158	Intercollegiate Swimming (M) [2]
ATHL 0159	Intercollegiate Swimming (W) [2]
ATHL 0161	Intercollegiate Tennis (W) [2]
ATHL 0162	Intercollegiate Volleyball (W) [2]
ATHL 0163	Intercollegiate Water Polo (M) [2]
ATHL 0164	Intercollegiate Water Polo (W) [2]
ATHL 0165	Intercollegiate Wrestling (M) [2]
ATHL 0166	Intercollegiate Beach Volleyball (W) [2]
ATHL 0167	Intercollegiate Cross Country (W) [2]
ATHL 0170	Intercollegiate Wrestling (W)
ATHL 0169	Intercollegiate Track and Field (W) [2]
ATHL 0199	Intercollegiate Sports Conditioning [2]

Biological Sciences

BIOL 0001	General Biology
BIOL 0002	Botany
BIOL 0003	General Zoology (maximum credit, 1 course from BIOL 0003 and BIOL 0033)
BIOL 0004	Microbiology [3]
BIOL 0005	Human Anatomy [4]
BIOL 0005X	Success in Anatomy [4]
BIOL 0006	Human Physiology [4]
BIOL 0010	Introduction to Biology [3]
BIOL 0011	Concepts of Biology [3]
BIOL 0014	Natural History, Ecology and Conservation
BIOL 0015	Marine Biology
BIOL 0021	Introduction to Plant Science
BIOL 0028	Independent Study [1]
BIOL 0030	Introduction to Ornithology
BIOL 0033	Introduction to Zoology (maximum credit, 1 course from BIOL 0003 and BIOL 0033)
BIOL 0035	Introduction to Entomology
BIOL 0055	General Human Anatomy and Physiology [4]
BIOL 0056	Biology: A Human Perspective [3]
BIOL 0056L	Biology: A Human Perspective Laboratory [3]
BIOL 0140	Organismal Biology

Business

BUS 0201	Financial Accounting I
BUS 0202	Financial Accounting II
BUS 0203	Managerial Accounting
BUS 0210	Ethical Studies in Business
BUS 0215	Personal Finance
BUS 0260	Introduction to Business
BUS 0266	Introduction to Oral Communication
BUS 0270	Business Law
BUS 0271	Law and Society

Chemistry

CHEM 0001A	General Chemistry I [5]
CHEM 0001B	General Chemistry II [5]
CHEM 0002A	Introduction to Chemistry I [5]
CHEM 0002B	Introduction to Chemistry II [5]
CHEM 0003A	General Chemistry I - Part 1 [5]
CHEM 0003B	General Chemistry I - Part 2 [5]
CHEM 0005	Chemistry - Quantitative Analysis
CHEM 0012A	Organic Chemistry I
CHEM 0012B	Organic Chemistry II
CHEM 0140	Survey of Chemistry and Physics
CHEM 0028	Independent Study [1]

Communication Studies

COMM C1000	Introduction to Public Speaking
COMM 0002	Argumentation and Rhetorical Criticism
COMM 0003	Small Group Communication
COMM 0005	Communication Foundations (maximum credit, 1 course from COMM 0001 and COMM 0005)
COMM 0006	Performance of Diverse Literatures
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Communication Theory, Methods, and Practice
COMM 0012	Visual Communication
COMM 0070	Mass Communication: Media and Society
COMM 0071	Newswriting and Reporting Techniques

Computer Science

CSCI 0010	Introduction to Computing
CSCI 0012	Programming Concepts and Methodology I
CSCI 0013	Programming Concepts and Methodology II
CSCI 0014	Data Structures
CSCI 0026	Discrete Structures for Computer Science
CSCI 0028	Independent Study [1]
CSCI 0039	Introduction to Computer Architecture and Assembly Language
CSCI 0046	System Programming with C
CSCI 0050	Introduction to Unix/Linux
CSCI 0054	Visual Basic .NET Programming II
CSCI 0066	Object-Oriented Programming Using C++
CSCI 0076A	Game Programming

Deaf Studies

DFST 0001	American Sign Language I
DFST 0002	American Sign Language II
DFST 0003	American Sign Language III
DFST 0004	American Sign Language IV
DFST 0010	Introduction to Deaf Studies
DFST 0028	Independent Study [1]

Earth Science

ESCI 0001	Physical Geology
ESCI 0001L	Physical Geology Laboratory
ESCI 0002	California Geology
ESCI 0003	Historical Geology
ESCI 0003L	Historical Geology Laboratory
ESCI 0007	Energy, Environment, and Climate
ESCI 0010	Introduction to Earth Science
ESCI 0010L	Introduction to Earth Science Laboratory
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESCI 0028	Independent Study [1]

ESCI 0050	Geology of National Parks and Monuments

Economics

ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics
ECON 0028	Independent Study [1]

Education

EDU 0010	Introduction to Elementary Education with Field Experience

Engineering

ENGR 0028	Independent Study [1]
ENGR 0101	Engineering Seminar
ENGR 0110	Introduction to Engineering Design
ENGR 0130	Statics
ENGR 0137	Manufacturing Processes
ENGR 0140B	Materials Science and Engineering
ENGR 0151	Engineering Graphics
ENGR 0180	Engineering Surveying
ENGR 0220	Programming and Problem Solving in Engineering
ENGR 0230	Dynamics
ENGR 0260	Electric Circuits
ENGR 0260L	Electric Circuits Laboratory

English

ENGL C1000	Academic Reading and Writing
ENGL C1001	Critical Thinking and Writing
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0002	Structure of English
ENGL 0016	Introduction to LGBTIQ Literature
ENGL 0017	Introduction to Shakespeare and Popular Culture
ENGL 0018	Creative Writing (Non-Fiction)
ENGL 0019	Introduction to Creative Writing (no credit for ENGL 0019 if taken after ENGL 0020 or ENGL 0021)
ENGL 0020	Creative Writing (Poetry)
ENGL 0021	Creative Writing (Fiction)
ENGL 0024	Introduction to Literary Criticism and Critical Concepts
ENGL 0027	Literature by Women
ENGL 0028	Independent Study [1]
ENGL 0029	Introduction to Drama as Literature
ENGL 0030A	American Literature - Beginnings through Civil War
ENGL 0030B	American Literature - Civil War to the Present
ENGL 0032	Introduction to Poetry
ENGL 0033	Introduction to Shakespeare (The Drama)
ENGL 0034	Introduction to the Novel
ENGL 0035	Introduction to the Short Story

ENGL 0037	American Film Masterpieces (maximum credit, 1 course from ENGL 0037 and ENGL 0038)	
ENGL 0038	International Film Masterpieces (maximum credit, 1 course from ENGL 0037 and ENGL 0038)	
ENGL 0040	The Filmed Novel	
ENGL 0042	The Documentary Film	
ENGL 0044	Children's Literature	
ENGL 0045	Young Adult Literature	
ENGL 0046A	English Literature	
ENGL 0046B	English Literature	
ENGL 0047A	World Literature	
ENGL 0047B	World Literature	
ENGL 0048	Literature of Science Fiction	

English as a Second Language

ESL 0025C	Advanced Reading and Writing

Environmental Studies and Sustainability

ESS 0001	Introduction to Environmental Sciences and Sustainability
ESS 0001L	Introduction to Environmental Science Laboratory
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate
ESS 0008	California Water
ESS 0010	Conservation of Natural Resources
ESS 0014	Natural History, Ecology and Conservation
ESS 0028	Independent Study [1]

Ethnic Studies

ETHN 0011	Introduction to Ethnic Studies
ETHN 0014	Introduction to Asian American Studies
ETHN 0020	Introduction to African American Studies
ETHN 0028	Independent Study
ETHN 0030	Introduction to Chicana/o Studies
ETHN 0045	Federal Indian Law and Policy
ETHN 0050	Ethnic Images in Film
ETHN 0053	Introduction to Native American Studies

Fashion

FASH 0003	Textiles

French

FREN 0001	Elementary French - Level I
FREN 0002	Elementary French - Level II
FREN 0003	Intermediate French - Level I
FREN 0004	Intermediate French - Level II
FREN 0028	Independent Study [1]

Geography

GEOG 0001	Physical Geography
GEOG 0001L	Physical Geography Laboratory
GEOG 0002	Cultural Geography
GEOG 0003	Geography of California
GEOG 0004	Weather and Climate
GEOG 0005	World Regional Geography
GEOG 0028	Independent Study [1]
GEOG 0090	Introduction to Geographic Information Systems (GIS)

German

GER 0001	Elementary German - Level I
GER 0002	Elementary German - Level II
GER 0028	Independent Study [1]

Health Education

HED 0001	Standard First Aid/Community CPR
HED 0002	Health Education
HED 0010	Health and Aging
HED 0101	Introduction to Public Health
HED 0102	Health and Social Justice

History

HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
HIST 0008A	Asian American History: 18th Century to 1945
HIST 0008B	Asian American History: Early 20th Century to 21st Century
HIST 0017A	History of the United States to 1877
HIST 0017B	History of the United States since 1865
HIST 0018A	The African American Experience in American History to 1877
HIST 0018B	The African American Experience in American History since 1877
HIST 0019A	History of Traditional East Asia
HIST 0019B	History of Modern East Asia
HIST 0020	California History
HIST 0021	Contemporary United States History
HIST 0022	American Military History
HIST 0023	Chicano/Mexican American History
HIST 0024	Russian History - 10th Century to Present
HIST 0025	Native American History
HIST 0026	Women in World History
HIST 0027	Women in American History
HIST 0028	Independent Study [1]
HIST 0049	The American West
HIST 0050	World History to 1500
HIST 0051	World History since 1500

Human Development and Family

HDEV 0001	Human Development Through the Lifespan (maximum credit, 1 course from HDEV 0001 and HDEV 0009)
HDEV 0004	Child, Family, and Community
HDEV 0009	Child Growth and Development (maximum credit, 1 course from HDEV 0001 and HDEV 0009)
HDEV 0021	Psychology of Intimate Relationships and Family
HDEV 0022	The Family
HDEV 0044	Children's Literature

Humanities

HUM 0001	Introduction to Humanities I
HUM 0002	Introduction to Humanities II
HUM 0003	Introduction to Asian Humanities
HUM 0005	Classical Roots of the Contemporary Western World
HUM 0009	Introduction to Women, Gender and Religion
HUM 0010	World Religions
HUM 0015	Introduction to Mythology
HUM 0017	Introduction to Atheism
HUM 0020	Introduction to the Hebrew Bible
HUM 0021	Introduction to the New Testament
HUM 0028	Independent Study [1]

Italian

ITAL 0001	Elementary Italian - Level I
ITAL 0002	Elementary Italian - Level II

Japanese

JPN 0001	Elementary Japanese - Level I
JPN 0002	Elementary Japanese - Level II
JPN 0028	Independent Study [1]

Kinesiology

KIN 0003A	Cardio Fitness - Level I [2]
KIN 0003B	Cardio Fitness - Level II [2]
KIN 0004	Cross Training [2]
KIN 0005A	Weight Training [2]
KIN 0005B	Strength Training - Circuit and Power Lifting [2]
KIN 0005C	Weight Training - Advanced
KIN 0006	Physical Fitness [2]
KIN 0007	Aerobic Fitness [2]
KIN 0009	Cardio Kickboxing [2]
KIN 0010	Fitness and Improved Health Boot Camp [2]
KIN 0018	Peaceful Self Defense [2]
KIN 0019	Basic Self Defense [2]
KIN 0020	Multi Self Defense System [2]
KIN 0023	Tai Chi [2]
KIN 0026	Badminton [2]
KIN 0027	Recreational Basketball [2]
KIN 0028	Independent Study [1]
KIN 0029	Flag Football [2]
KIN 0030	Golf [2]
KIN 0031A	Soccer Level I [2]
KIN 0031B	Soccer Level II [2]
KIN 0032	Tennis [2]
KIN 0032B	Advanced Tennis
KIN 0033	Volleyball [2]
KIN 0034	Beach Volleyball [2]
KIN 0035A	Futsal - Level I [2]
KIN 0035B	Futsal - Level II [2]
KIN 0036A	Beginning Pickleball
KIN 0036B	Intermediate Pickleball

KIN 0040	Water Exercise for Fitness [2]
KIN 0041	Fundamentals of Swimming [2]
KIN 0042	Swimming Conditioning [2]
KIN 0050A	Ballet I
KIN 0050B	Ballet II
KIN 0051	Jazz Dance
KIN 0053	Ballroom Dance
KIN 0054	Modern Dance
KIN 0055	Line Dance
KIN 0062	Fundamentals of Yoga [2]
KIN 0069	Mat Pilates [2]
KIN 0071	Adapted Aquatics [2]
KIN 0072	Adapted Aerobic Fitness [2]
KIN 0073	Adapted Individualized Exercises [2]
KIN 0081	Introduction to Kinesiology [6]
KIN 0083	Physiology of Fitness [6]
KIN 0084	Care and Prevention of Athletic Injuries
KIN 0086	Psychology of Sport [6]
KIN 0087A	Theory of Baseball [6]
KIN 0087B	Theory of Basketball [6]
KIN 0087C	Theory of Football [6]
KIN 0087D	Theory of Soccer [6]
KIN 0087E	Theory of Softball [6]
KIN 0087F	Theory of Volleyball [6]
KIN 0088	Introduction to Coaching Team Sports [6]
KIN 0096	Sports Activities [2]

Lesbian, Gay, Bisexual and Transgender Studies

LGBT 0001	Introduction to LGBT Studies/Queer Theory
LGBT 0002	Queer (LGBTIQ) Film History
LGBT 0028	Independent Study [1]

Mathematics

MATH 0011	Data Science for All
MATH 0012	College Algebra (maximum credit for MATH 0012, 4 semester units. maximum credit, 1 course from MATH 0012 and MATH 0029)
MATH 0015	Discrete Mathematics
MATH 0016A	Calculus for Social and Life Sciences (maximum credit, 1 course from MATH 0016A, MATH 0030, and MATH 0042)
MATH 0016B	Calculus for Social and Life Sciences (maximum credit, 1 course from MATH 0016B and MATH 0031)
MATH 0017	Concepts of Mathematics (maximum credit, 1 course from MATH 0017 and MATH 0018)
MATH 0018	The Nature of Mathematics (maximum credit, 1 course from MATH 0017 and MATH 0018)
MATH 0019	Mathematical Concepts for Elementary School Teachers
MATH 0024	Modern Business Mathematics

MATH 0028	Independent Study [1]	
MATH 0029	Pre-Calculus Mathematics (maximum credit, 1 course from MATH 0012 and MATH 0029)	
MATH 0030	Analytical Geometry and Calculus I (maximum credit, 1 course from MATH 0016A, MATH 0030, and MATH 0042)	
MATH 0031	Analytical Geometry and Calculus II (maximum credit, 1 course from MATH 0016B and MATH 0031)	
MATH 0032	Analytical Geometry and Calculus III	
MATH 0033	Differential Equations and Linear Algebra	
MATH 0042	Business Calculus (maximum credit, 1 course from MATH 0016A, MATH 0030, and MATH 0042)	

Music

MUS 0002	Music Appreciation
MUS 0003A	Ear Training I
MUS 0003B	Ear Training II
MUS 0004A	Advanced Ear Training I
MUS 0004B	Advanced Ear Training II
MUS 0006A	Music Theory I
MUS 0006B	Music Theory II
MUS 0009A	Music Theory III
MUS 0009B	Music Theory IV
MUS 0010	Music Fundamentals (no credit for MUS 0010 if taken concurrently with or after MUS 0003A/MUS 0003B or MUS 0006A/MUS 0006B)
MUS 0011	Introduction and History of Jazz
MUS 0012A	Survey of Music History and Literature to 1750
MUS 0012B	Survey of Music History and Literature from 1750 to Present
MUS 0013	Introduction to Music: History of Rock and Roll
MUS 0024	Introduction to Music Cultures of the World
MUS 0028	Independent Study [1]
MUS 0039A	Beginning Voice
MUS 0039B	Intermediate Voice
MUS 0039C	Advanced Voice I
MUS 0039D	Advanced Voice II
MUS 0040A	Beginning Piano I
MUS 0040B	Beginning Piano II
MUS 0040C	Intermediate Piano I
MUS 0040D	Intermediate Piano II
MUS 0042	Chamber Singers
MUS 0046	Jazz Ensemble
MUS 0047	Vocal Jazz Ensemble
MUS 0048	Concert Choir
MUS 0049	Jazz Improvisation Performance Ensemble

MUS 0050	Wind Ensemble
MUS 0051	Applied Music [1]
MUS 0054	Symphonic Band
MUS 0057A	Beginning Guitar
MUS 0057B	Beginning Guitar
MUS 0058A	Intermediate Guitar
MUS 0058B	Intermediate Guitar

Nutrition and Food Science

NUTF 0010	Principles of Nutrition

Personal Development

PDEV 0001	College and Life Success (maximum credit, 3 units from PDEV 1 and PDEV 8)
PDEV 0008	Introduction to College (maximum credit, 3 units from PDEV 1 and PDEV 8)
PDEV 0070	Stress and Well Being

Philosophy

PHIL 0002	Introduction to Philosophy: Ethics
PHIL 0004	Introduction to Critical Thinking
PHIL 0006	Introduction to Philosophy: Knowledge and Reality
PHIL 0010	Philosophy of Religion
PHIL 0012	Introduction to Symbolic Logic
PHIL 0013	Introduction to Asian Philosophy
PHIL 0020	History of Ancient Greek Philosophy
PHIL 0021	History of Modern Philosophy
PHIL 0027	Introduction to Philosophy of Women in Western Cultures
PHIL 0028	Independent Study [1]
PHIL 0030	Introduction to Social and Political Philosophy
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science
PHIL 0210	Ethical Studies in Business

Photography

PHOT 0010	History of Photography
PHOT 0060A	Beginning Photography
PHOT 0060B	The Creative Image
PHOT 0075	Introduction to Photoshop
PHOT 0089	Documentary Filmmaking
PHOT 0080	Color Photography

Physics

PHYS 0010	Basic Concepts in Physics (no credit for PHYS 0010 if taken after PHYS 0105 or PHYS 0205)
PHYS 0010L	Basic Concepts in Physics Laboratory (no credit for PHYS 0010L if taken after PHYS 0105 or PHYS 0205)
PHYS 0028	Independent Study [1]
PHYS 0105	General Physics I [7]
PHYS 0105L	General Physics I Laboratory [7]
PHYS 0110	General Physics II [7]
PHYS 0110L	General Physics II Laboratory [7]
PHYS 0140	Survey of Chemistry and Physics

PHYS 0205	Principles of Physics: Mechanics [7]	
PHYS 0205L	Principles of Physics Laboratory: Mechanics [7]	
PHYS 0210	Principles of Physics: Electricity and Magnetism [7]	
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism [7]	
PHYS 0210R	Problem Solving for Physics 210 (must be taken with PHYS 0210)	
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics [7]	
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics [7]	
PHYS 0215R	Problem Solving for Physics 215 (must be taken with PHYS 0215)	

Political Science

POLS C1000	American Government and Politics
POLS 0002	Introduction to Comparative Government
POLS 0003	Introduction to International Relations
POLS 0004	Russian and East European Political Systems
POLS 0005	California Politics and Government
POLS 0007	Politics of the Developing World
POLS 0008	American Foreign Policy
POLS 0009	Politics of the Middle East
POLS 0012	Terrorism
POLS 0016	Introduction to Political Theory
POLS 0017	Introduction to Political Science Research Methods
POLS 0018	California Government
POLS 0027	Women and Politics in a Global Society
POLS 0028	Independent Study [1]

Psychology

PSYC 0028	Independent Study [1]
PSYC C1000	Introduction to Psychology
PSYC 0103	Social Psychology
PSYC 0104	Developmental Psychology
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0107	Abnormal Psychology
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Intimate Relationships and Family
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0140	Introduction to Biopsychology
PSYC 0140L	Biopsychology Laboratory
PSYC 0142	Introduction to Psychological Statistics (maximum credit, 1 course from MATH 0013, PSYC 0142, and SOC 15)
PSYC 0160	Psychology and Film
PSYC 0180	Cultural Psychology

PSYC 0200	Introduction to Research Methods in Psychology

Recreation Management

RECM 0070	Backpacking [2]
RECM 0071	Rock Climbing [2]

Rise

RISE 0001	First Year Seminar

Sociology

SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0004	The Family
SOC 0005	Sociology of Women's Health
SOC 0009	Introduction to Crime, Deviance, and Social Control
SOC 0010	Feminism and Social Action
SOC 0015	Introduction to Statistics in Sociology (maximum credit, 1 course from MATH 0013, PSYC 0142, and SOC 15)
SOC 0027	Sociology of Gender
SOC 0047	Introduction to Hip Hop and Social Justice (Also known as ETHN 0047)
SOC 0028	Independent Study [1]
SOC 0110	Introduction to Social Justice

Spanish

SPAN 0001	Elementary Spanish - Level I
SPAN 0002	Elementary Spanish - Level II
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
SPAN 0017	Intermediate Conversational Spanish
SPAN 0028	Independent Study [1]

Statistics

STAT C1000	Introduction to Statistics

Theatre Arts

THEA 0010A	Acting I
THEA 0010B	Acting II
THEA 0011	Stage Movement
THEA 0013	Introduction to Theatre
THEA 0014	Stagecraft
THEA 0015	Stage Lighting
THEA 0016A	Costume History
THEA 0016B	Costume Construction
THEA 0017	Stage Makeup
THEA 0018	Acting for Musical Theatre
THEA 0019A	Stage Properties
THEA 0019B	Scenic Painting
THEA 0021	Script Analysis
THEA 0022A	Production Crew I
THEA 0022B	Production Crew II
THEA 0022C	Production Crew III
THEA 0022D	Production Crew IV
THEA 0023A	Rehearsal and Performance - Cast I
THEA 0023B	Rehearsal and Performance - Cast II

THEA 0023C	Rehearsal and Performance - Cast III
THEA 0023D	Rehearsal and Performance - Cast IV
THEA 0024	Stage Management
THEA 0028	Independent Study [1]
THEA 0030	Diversity in American Theatre
Women and Gender Studies	
WMST 0001	Introduction to Women's Studies
WMST 0002	Introduction to LGBT Studies/Queer Theory
WMST 0003	Introduction to Women, Gender and Religion
WMST 0004	Feminism and Social Action
WMST 0006	Introduction to Disability Studies

[1]

Transfer credit for these courses is given only after review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty.

[2]

Any or all of these ATHL, KIN and RECM activity courses combined: maximum credit, 4 units

[3]

(maximum credit, 4 units from BIOL 0010, BIOL 0011 or BIOL 0056/BIOL 0056L; no credit for BIOL 0011 or BIOL 0056/BIOL 0056L if taken after BIOL 0001)

[4]

BIOL 0005, BIOL 0006, BIOL 0005X, BIOL 0055 combined: maximum credit, 10 units

[5]

(Maximum credit, 1 series from CHEM 0001A & CHEM 0001B and CHEM 0002A & CHEM 0002B), (CHEM 0003A & CHEM 0003B combined equivalent to CHEM 0001A; maximum credit, 5 units)

[6]

Any or all of these KIN courses combined: maximum credit, 8 units

[7]

Maximum credit, 1 series from PHYS 0105/PHYS 0110 and PHYS 0205/PHYS 0210/PHYS 0215

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Rocklin Campus
Dean, Student Services
L Building
(916) 660-7304

Sierra College-Nevada County Campus
Executive Dean
Administration Building
(530) 274-5301

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Sierra College-Roseville Center Admissions and Records Office
(916) 781-6204
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Honesty in Academic Work

Success in college, as in other aspects of life, demands absolute honesty at all times. Sierra College expects that students, as well as faculty, will observe the principles of ethical conduct in their treatment of fellow members of the academic community and in their accomplishment of academic work. Students are responsible for familiarizing themselves with these principles as they pertain to each course in which they enroll. When completing assignments, students should be careful to follow the principles of ethical conduct. Students who are uncertain about the ethics

involved in particular courses or assignments should make it a point to talk with instructors. Proven misconduct or violation of these principles will be disciplined as set forth in this policy.

The instructor has absolute authority over issuing the final course grade (Education Code, Section 76224).

It is important to remember that the principles of academic honesty in no way restrict free inquiry and the open exchange of diverse, and sometimes unpopular, ideas. These the College encourages, for they are vital to learning and the pursuit of reason and truth.

Students who fail to comply with this policy will be subject to disciplinary action as described in Administrative Procedure 5515.

Reference: Board Policies Chapter 5

Standards of Student Conduct

By enrolling in Sierra College, a student agrees to be a responsible member of the District community; obey the law; comply with the published rules and regulations of the District; respect the rights, privileges and property of the other members of the District community; and not interfere with legitimate District affairs. All rules and regulations applying to conduct also apply to student employees, whether all or a portion of the salary is paid by the District.

The District Superintendent/President has established procedures for the imposition of discipline on students in accordance with the requirements for due process of the federal and state law and regulations.

The procedures clearly define the conduct that is subject to discipline, and identify potential disciplinary actions, including but not limited to the removal, suspension or expulsion of a student.

The District Superintendent/President notifies the Board of all long term suspensions of one or more school terms.   The Board considers any recommendation from the Superintendent/President for expulsion.

Reference: Sierra College Board Policy 5500.

Student Discipline Procedures and Due Process

The purpose of this procedure is to provide a prompt and equitable means to address violations of the Standards of Student Conduct outlined in Board Policy 5500. (https://www.sierracollege.edu/_files/resources/about-us/board/policies/chapter5/Board-Policy-5500.pdf) Each case is handled individually; while due process is always employed, some of the procedures outlined below may not be necessary in every case.

A. Grounds for Student Discipline. The College may impose student discipline for any conduct deemed to constitute willful disruption of the orderly operation of College activities including each of the grounds for discipline set out in Board Policy 5520, and, to the extent not listed in Board Policy 5520, any ground identified in Education Code sections 66017, 66301, 66302, 76030, and any conduct constituting "good cause" within the scope of Education Code section 76033.

B. Types of Student Discipline. Discipline includes reprimand, suspension and expulsion, imposed according to the process described below.

C. Process for Imposing Student Discipline. Students accused of alleged misconduct shall be referred to the Disciplinary Officer. The Disciplinary

Officer may require the student to complete a written statement relevant to the alleged misconduct and giving the student's position. The Disciplinary Officer has the right to impose disciplinary action based on good cause as set out in Board Policy 5500 following the disciplinary action procedures below:

1.Discipline Not Requiring Hearing.

(a) By Discipline Officer. The Discipline Officer has authority and discretion, after consideration of available evidence including the student's statement, to impose discipline short of suspension which does not require any due process hearing.

(b) By Instructor. An instructor may remove a student from class for the day of the removal and the next class meeting (no matter the length or type of class) for any good cause. The instructor shall immediately report the removal to the Disciplinary Officer.

(c) Interim (Up to 10 Day) Suspension in Certain Cases.

2. The following procedures shall apply to discipline, such as suspension, which requires a due process hearing, Subject to the exception for interim suspension, described above, imposition of suspension and similarly severe forms of discipline require that a due process hearing be offered prior to imposition of the discipline. Due process includes the following steps:

(a) Notice to Student. If the Discipline Officer elects to proceed with discipline after reviewing (or not receiving) the student response to initial notification, the Discipline Officer shall notify the student of the proposed discipline and offer a due process hearing at which the hearing body (the Student Conduct Committee) will consider the evidence and make a determination of whether discipline shall be imposed.

(b) Formation of a Student Conduct Committee. The Discipline Officer shall arrange for the appointment of a Student Conduct Committee to hear the evidence and determine whether to impose discipline.

(c) Conduct of Hearing and Decision. At least 48 hours prior to commencement of the hearing, the Discipline Officer shall supply the student with a copy of all the written evidence the Discipline Officer intends to present at the hearing.

(d) Notice of Decision and Appeal. Once received from the Committee, the Discipline Officer shall transmit the decision to the student, along with a form for appeal. The student shall then have the right to appeal the decision to the Superintendent/President.

(e) Expulsion Process. Expulsion shall be by decision of the Governing Board upon recommendation of the Superintendent/President. Expulsion of a student is the permanent denial of student status and all attending rights and privileges. The District Superintendent/President may recommend expulsion of a student for "good cause" as defined in Board Policy 5500.

(f) Response to Court Orders. If an order requested by the College to protect its property or any person lawfully present thereon is issued upon finding of good cause by a court against a student of the College, and the order prevents the student from attending classes and maintaining academic standing, the College may, prior to expiration of the order, require the student to apply for reinstatement after the expiration of the order. Thereafter if the student applies for reinstatement the Governing Board shall conduct a review of the application which considers all of the following issues: the gravity of the offense leading to the court order, the evidence (if any) of subsequent offenses, and the likelihood that the

student would cause substantial disruption if he or she is reinstated. After considering review, the Governing Board, or the designee with authority pursuant to Education Code section 76038(f), shall take one of the following actions: Deny reinstatement, permit reinstatement, or permit conditional reinstatement subject to specified conditions.

1. Students accused of alleged misconduct shall be referred to the Disciplinary Officer. The Disciplinary Officer may require a written statement relevant to the alleged misconduct. The Disciplinary Officer has the right to impose disciplinary action based on good cause as set out in Board Policy 5500 following the disciplinary action procedures below.

2. In cases of alleged student misconduct, the Disciplinary Officer or designee shall use all reasonable means to contact the student to notify him or her of the allegations and to provide an opportunity for the student to respond. The Disciplinary Officer shall offer the student the opportunity to respond and address the accusations and/or instances of alleged misconduct verbally or in writing. Students must respond within two (2) days of receiving notice. Failure to respond shall be deemed a waiver of the right to contest any discipline imposed or other action taken.

   (a) The District will provide the student with written notification of the conduct warranting discipline. The notice shall include the specific section of the Standards of Student Conduct the student is accused of violating, and a short statement of facts supporting the accusation.

3. After considering the student's response and considering all information relative to the issue, the Disciplinary Officer may choose to take any of the following actions:

(a) Drop the charges for lack of evidence.

(b) Issue a warning.

(c) Prohibit the student from intentionally contacting (e.g., by telephone or e-mail), or otherwise disturbing the peace of others specifically named for a specified period of time.

(d) Remove a student from one or more classes or activities (sports, student government, field trips, drama events, etc.) for up to ten (10) days. Any decision to remove a student for up to ten (10) days is final and may not be appealed.

(e) Recommend expulsion to the Board of Trustees.

(f) Any other action the Disciplinary Officer deems appropriate.

Failure to Comply with Program-Specific Policies and Procedures

Sierra College offers educational programs and services that require compliance with specific policies, procedures and standards including but not limited to: Nursing, Public Safety, Study Abroad, Health Center, and Residence Life. Students who fail to comply with these policies will be disciplined according to the specific mandates of the program. This does not preclude discipline against students enrolled in those programs and services for other alleged misconduct under these procedures. See Administrative Procedure 5521 Nursing Student Discipline Procedures and Due Process, and Administrative Procedure 5522 Firefighter Academy, Law Enforcement Academy and Emergency Medical Technician Program Student Discipline Procedures and Due Process.

Financial Aid

Any student suspended or expelled from the District shall be ineligible for scholarships, loans, grants, or any other financial aid during the period of suspension or expulsion.

Employment

Any student suspended or expelled from the District shall be ineligible for student employee status with the District for the period of suspension or expulsion.

Fees

No student suspended or expelled shall be refunded or credited any fees paid by and/or for the student.

1. Discipline Not Requiring Hearing.
   a. By Discipline Officer. The Discipline Officer has authority and discretion, after consideration of available evidence including the student's statement, to impose discipline short of suspension which does not require any due process hearing.
   b. By Instructor. An instructor may remove a student from class for the day of the removal and the next class meeting (no matter the length or type of class) for any good cause. The instructor shall immediately report the removal to the Disciplinary Officer.
   c. Interim (Up to 10 Day) Suspension in Certain Cases.

Reference: Sierra College Board Policy 5500 and Sierra College Administrative Procedure 5520

Students' Rights and Grievances

Students are encouraged to pursue their academic studies and become involved in other College-sponsored activities that promote their intellectual growth and personal development, free of unfair and improper actions on the part of any member of the academic community. If, at any time, a student feels they have been subject to an unjust action or decision, redress may be sought as prescribed in Administrative Procedure 5530.

Academic Accommodations Students with verified disabilities have the right to receive appropriate academic adjustments and auxiliary aids as specified in the Americans with Disabilities Act and Section 504 of the Federal Rehabilitation Act of 1973 (see Administrative Procedure 5140).

Course Grades Grades, to the extent permitted by Education Code 876224(a), which provides, "When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final" (See Administrative Procedure 4231).

Discrimination See Administrative Procedures 3410 and 3435.

Harassment See Administrative Procedures 3430 and 3435.

Students are afforded the following rights:

- The right of free expression protected by state and federal constitutions and Education Code 76120.
- The right to have academic records treated in a confidential and responsible manner with due regard to the personal nature of the information these records contain. Student records will be released only with the written consent of the student or as provided

by law and pursuant to Administrative Procedure 5040. (https://go.boarddocs.com/ca/sierra/Board.nsf/files/BT3NSG60C482/$file/Administrative-Procedure-5040.pdf)

- The right to take reasonable exception to the data or views offered in any course of study without disrupting the instructional environment and to reserve judgment about matters of opinion.
- The right to be free from unfair or improper action.
- The right to participate in the formation of policy affecting students in accordance with established procedures for shared governance.
- The right to petition to form an organization around any particular interest, including the freedom to organize and to join student organizations, subject to published campus and District regulations.

Students who allege that an action or decision by the District has violated their rights as listed above may file a grievance as outlined in Administrative Procedure 5530.

Students are encouraged to follow the college grievance process. Issues that are not resolved may be referred to the California Community Colleges Chancellor's Office (https://www.cccco.edu/Complaint-Process-Notice/).

Grievances

A grievable matter is an alleged action or decision of the District that adversely affects the status of a student or violates the rights of a student as set forth in Administrative Procedure 5530. The following allegations or issues shall not be heard under this Administrative Procedure:

- Discipline of students see Administrative Procedures 5520 and 5521
- Discipline of employees
- Traffic or parking citations (through Campus Security)
- Grade changes see Administrative Procedure 4231
- Discrimination or sexual harassment complaints other than academic accommodation. See Board Policies 3410 and 3430 and Administrative Procedures 3410, 3430 and 3435

Procedures for grievances and complaints are provided below and provide exclusive means for resolving any alleged unfair or improper action. The purpose of this procedure is to secure an equitable solution to student complaints at the lowest level possible. Some education programs may have specific processes and procedures for grievances and complaints.

The District Superintendent/President shall appoint an employee who shall serve as the Grievance Officer. The Grievance Officer shall serve to assist all parties to facilitate a full, fair and efficient resolution of the grievance, shall coordinate all scheduling of hearings, and shall avoid an adversarial role.

Failure of the District to meet any of the deadlines specified in this procedure shall not be construed against the District nor result in a finding in favor of the student.

Informal Grievance Process

A student who believes that his/her rights have been violated must make a reasonable, good faith attempt to resolve the matter through the informal grievance process before the formal process can be requested. At any point during the informal grievance process level, a student may also informally and orally present the complaint to the Grievance Officer.

First Step

The student should discuss the problem directly with the person involved or see the grievance officer for assistance in problem resolution within sixty instructional days from the date the student became aware of the problem or the alleged act. Failure of the student to act within the above-specified sixty day period shall constitute a waiver of the right to pursue the matter further.

Second Step

If the problem cannot be resolved at the first step, the student shall discuss the problem with the immediate supervisor of the person against whom the complaint is directed. The immediate supervisor shall make every effort to resolve the problem with the student and the person being grieved.

Third Step

If the problem cannot be resolved at the second step, the student shall discuss the grievance with the next-level administrator within ten working days from receiving a decision from the immediate supervisor.

Formal Grievance Process

Within five instructional days of the completion of the informal grievance process, the student may file a formal grievance by submitting a Grievance Form to the Grievance Officer. The Grievance Form may be obtained from the Grievance Officer. The Grievance Officer will determine whether the allegations are grievable under administrative procedure as follows:

- The grievant was an enrolled student at the time the alleged incident occurred;
- The student has completed the informal process;
- The timelines have been met;
- The complaint, if true, would constitute a violation of Board Policy 5530;
- There is a remedy which is within the authority of the District to grant;
- There is not another prescribed administrative channel for due process.

If the grounds for grievance have been satisfied, a formal hearing before the Grievance Committee will be scheduled within ten instructional days of the request. The student must contact the office of the Vice President, Student Services for the hearing date.

Grievance Hearings

The Grievance Committee shall consist of three members: one administrator appointed by the Management Senate; one faculty member appointed by the Academic Senate; and one student appointed by the Student Senate. The Grievance Officer shall serve as the chair. Committee members shall not in any way be connected to the event out of which the action arose.

Hearing Process

1. The hearing shall be convened within ten instructional days of the request. The hearing shall be limited to one meeting unless required otherwise by due process.
2. The student shall be given not less than 48 hours advance written notice of the time, date and place of the hearing.
3. If the student is accompanied by an attorney, the name and address of that attorney must be submitted to the Office of the Vice President, Student Services at the time of filing the request for a formal grievance. Failure to do so shall constitute good cause for a continuance of the hearing and good cause to exclude the attorney. If the student is represented by an attorney, the District will also be represented by an attorney. The role of the advisor or attorney shall be passive in this procedure. The advisor or attorney may be present

at the appeal hearing and may counsel the student responding to questions relating to the incident. The advisor or attorney may not address the Grievance Committee and shall not be permitted to participate in any way during the hearing except to offer counsel to the student.

4. The decision of the Grievance Officer shall be final on all matters relating to the conduct of the hearing unless there is a two-thirds majority vote of the members of the Grievance Committee to the contrary.

5. The hearings need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs. Hearsay evidence may be used for the purpose of supplementing or explaining other evidence, but shall not be sufficient in itself to support a finding. Unduly repetitious evidence may be excluded.

6. The burden of proof by a preponderance of the evidence shall be carried by the grievant.

7. The Grievance Officer shall assist all parties in the securing of supporting information.

8. Each party of the grievance may provide the Grievance Committee with police reports, written and/or oral statements. Written statements of individuals not present at the hearing must be made under penalty of perjury and must be submitted to the Grievance Office prior to the start of the hearing. If the written statement is disputed by either side, the Grievance Officer may continue the hearing to allow the objecting party to secure the attendance of the witness, obtain contradictory evidence, or such other remedy determined by the Grievance Officer.

9. All proceedings of the Grievance Committee shall be closed to everyone other than the Committee members, the Grievance Officer, the student grievant, a witness while presenting evidence, the advisor or attorney for the student, and the advisor or attorney for the District, the person being grieved, and the advisor or attorney for the person being grieved. All participants shall maintain the strictest confidentiality.

10. Final deliberations will be conducted with only the Grievance Committee members present.

11. The Grievance Committee will consider all relevant evidence pertaining to the appeal and issue a written report to the District Superintendent/President.

12. All Grievance Committee hearing proceedings shall be recorded. The recordings shall be maintained by the Grievance Officer for two calendar years, along with copies of all decisions made. Access to the recordings and copies of decisions made shall be limited to the parties involved, unless otherwise required by law.

13. The Grievance Committee will provide its findings to the District Superintendent/President within three instructional days after the conclusion of the hearing.

Decision by the District Superintendent/President

- The grievant shall not have a right to a hearing by the District Superintendent/President.
- The District Superintendent/President shall review the report of the Grievance Committee.
- The District Superintendent/President may consult with the Grievance Officer.
- The District Superintendent/President shall submit a written decision to all parties concerned.

- The District Superintendent/President may accept or reject the findings and recommendations of the Grievance Committee.
- Once the District Superintendent/President makes a decision, the grievance process has been completed.
- There is no right of appeal to the Board of Trustees.

Reference: Sierra College Board Policy 5530 and Administrative Procedure 5530.

Academic Freedom Policy
Definition

Academic Freedom is the freedom and duty of professionally qualified persons to inquire or investigate, to discuss, publish or teach the truth as they see it in line with the tools of their discipline, subject to no religious or political control or authority, except the control of standards of professional ethics or the authority of the rational methods by which truths and conclusions are established in the disciplines involved. Both the protection of academic freedom and the requirements of academic responsibility mentioned in Board Policy 4030 apply not only to the full-time probationary and the tenured teacher but also to all others, such as part-time teachers and teaching assistants who exercise teaching responsibilities.

Philosophy Statement

Sierra College supports the American Association of University Professors (AAUP) Statement of Principles on Academic Freedom and Tenure, both the rights and duties specified therein. The philosophy statement that follows reiterates the principles specified in the AAUP Statement.

Institutions of higher education are conducted for the common good and not to further the interest of either the individual teacher or the institution as a whole. The common good depends upon the free speech for truth and its free exposition. Academic freedom is essential to these purposes and applies to both teaching and research. Freedom in research is fundamental to the advancement of truth. Academic freedom in its teaching aspect is fundamental for the protection of the rights of the teacher in teaching and of the student to freedom in learning. It carries with it duties correlative with rights.

a. The teacher is entitled to full freedom to research in the publication of results, subject to the adequate performance of their other academic duties; but research for pecuniary return should be based upon an understanding with the authorities of the institution.

b. The teacher is entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter that has no relation to their subject. The intent of this statement is not to discourage what is "controversial." Controversy is at the heart of free academic inquiry. Indeed, there would be no need for an Academic Freedom policy to protect teaching of the uncontroversial. This passage serves to underscore the need for teachers to avoid persistently intruding material that has no relation to their subject and hence cannot be in line with the tools of their discipline.

c. The college teacher is a citizen, a member of a learned profession, and an officer of an educational institution. When they speak or write as a citizen, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As a person of learning and an educational officer, they should remember that the public might judge their profession and their institution by their utterances. Hence an

individual should at all times be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that they are not an institutional spokesperson.

Other duties correlative with the rights of Academic Freedom include the following.

a. While the teacher has the duty to design assessments to measure a student's mastery of course content, s/he must recognize and respect the distinction between the student's mastery of course content and the student's freedom of belief. Teachers assess student learning for mastery of course content. Decisions as to course content and quality of scholarship are to be made by reference to the standards of the academic profession, as interpreted and applied by the community of scholars who are qualified by expertise and training to establish such standards. A student's freedom of belief references an individual student's subjective decision to agree or disagree with the curricular content of a particular course within a broader academic discipline. Instructors have a duty to enhance student learning by assessing mastery of course content but have no authority to compel student belief.

b. The College has a duty to adopt a student grievance policy for instances where a student believes her/his rights to have been violated. Sierra College has adopted a student grievance policy and this policy is readily available to all students in this catalog and the "Student Rights and Responsibilities Handbook." College employees have a responsibility to educate students about the grievance policy and to facilitate the student grievance process.

Reference: Sierra College Board Policy 4030.

Academic Honors

President's Honor Roll

Full-time students earning a grade point average of 3.5 or better are included on the President's Honor Roll each semester. To qualify, students must complete 12 or more units of graded work (A, B, C, D, or F) at Sierra College. Credit by Examination and courses taken Pass/No Pass do not count toward this requirement.

Dean's List

Full-time students earning a grade point average of 3.0 to 3.499 are placed on the Dean's List. To qualify, students must complete 12 or more units of graded work (A, B, C, D, or F) at Sierra College. Credit by Examination and courses taken Pass/No Pass do not count toward this requirement.

Academic Renewal

A student's past substandard academic performance may not, for a variety of reasons, be reflective of the student's subsequent demonstrated ability. In such instances, the student's prior record may impair progress toward a legitimate educational goal. The policy outlined here is designed to permit alleviation of such previously recorded, substandard academic performance at Sierra College so that the student can achieve an appropriate academic goal in a reasonable period of time. This process is termed "Academic Renewal," and all Academic Renewal actions are irreversible.

Academic Renewal shall conform to the following guidelines:

- Academic Renewal can only be applied to "D" and "F" grades.
- The number of units alleviated may not exceed 30 units.
- Such alleviation shall be permitted only after six (6) units have been completed and a minimum of twelve (12) months have elapsed since the earning of the grades to be alleviated.
- The student must have a grade point average of 2.0 or higher in all courses attempted since taking the courses to be alleviated.

A student seeking academic renewal must meet with a Sierra College counselor to complete an Academic Renewal petition. The petition must be signed by the counselor before it is submitted to a campus Admissions and Records Office. If any of the required 12 units are earned at another college, an official transcript must be submitted with the petition. The Academic Standards Committee will review the request.

The permanent record shall be annotated in such a manner that all work remains legible, ensuring a true and complete academic history.

Academic renewal procedures may not conflict with the District's obligation to retain and destroy records or with the instructor's ability to determine a student's final grade.

Reference: Sierra College Administrative Procedure 4240.

Academic Standing

Good Academic Standing

A student who has attempted at least 12 units at Sierra College, has earned a cumulative grade point average of 2.0 or higher in all units attempted, and has completed over 50% of all units attempted is considered to be in good academic standing. Students in good academic standing are limited to enrolling in no more than 18 units per semester.

Academic Probation

A student who has attempted at least 12 units at Sierra College and has earned a cumulative grade point average of less than 2.0 in all units attempted, shall be placed on academic probation. "All units attempted" is defined as all units of credit for which the student is enrolled at Sierra College. Students on academic probation may be held to a student educational plan developed with a counselor. Academic Probation is posted on the student's permanent record.

Progress Probation

A student who has enrolled in at least 12 units at Sierra College and has grades of "W," "I," "NC" or "NP" in fifty percent or more of the total units attempted, shall be placed on progress probation. Students on progress probation may be held to a student educational plan developed with a counselor. Progress Probation is posted on the student's permanent record.

Unit Limitation

Students on academic OR progress probation may not enroll in more than 13 units. Exceptions to this limit may only be made upon petition and under extreme circumstances, at the discretion of the Dean of Student Services. Students entering a second or later semester of probation may be limited to fewer units, or to a list of specific courses as listed on the student educational plan.

Removal from Probation

Students on academic probation shall be removed from probation when the cumulative Sierra College grade point average reaches 2.0 or higher.

Students on progress probation shall be removed from probation when the percentage of "W," "I," "NC" and "NP" units at Sierra College drops below fifty percent.

Dismissal

Students on academic probation shall be subject to dismissal if their cumulative grade point average is less than 2.0 in all units attempted in each of three consecutive semesters[1], excluding summer.

Students on progress probation shall be subject to dismissal if the percentage of "W," "I," "NC" and "NP" units reaches or exceeds fifty percent in each of three consecutive semesters[1] attended.

Upon notification of dismissal, the student will not be eligible to enroll in any classes for one semester. Dismissal is posted on the student's permanent academic record.

[1]

For the purpose of dismissal, semesters shall be considered consecutive on the basis of the student's enrollment after the drop date, as long as the break in enrollment does not exceed one full semester.

Dismissal Appeal Automatic Exception

Students on academic OR progress probation making satisfactory semester progress by earning a semester grade point average of 2.0 or higher are not subject to dismissal as long as the 2.0 minimum semester grade point average is maintained. Students remain on probation and may not enroll in more than 13 units until good academic standing has been achieved.

Dismissal Appeal Request

Students may request exceptions to the standards of dismissal through a written appeal to the Dismissal Committee within seven calendar days of the dismissal notice being sent. The appeal must indicate a clear statement of the grounds on which continued enrollment should be granted and provide supporting evidence. The decision of the Dismissal Committee is final and will be communicated to the student in writing by the Dean of Student Services or designee prior to the start of the subsequent semester.

Students who have been dismissed two times will have their petitions reviewed by the Dismissal Committee, and may have their readmission postponed or denied if, in the judgment of the committee, the student has not presented sufficient evidence that the problems leading to the past dismissal have been rectified.

Readmission After Dismissal

A student who has been dismissed may request readmission after one semester. To request readmission, a student must:

- re-submit a Sierra College application for admission;
- develop an updated education plan with a counselor; and
- submit a Dismissal Readmission petition.

Readmitted students are held to a limit of 13 units, or to specific courses as approved by the counselor accepting the Dismissal Readmission petition.

Reference: Board Policy Chapter 4/Administrative Procedure Chapter 4

Auditing Courses

Auditing allows students to attend a course without officially registering. There is no record of attendance and no grade will be issued. Completing assignments and tests is not required, and professors have no obligation to grade the assignments of auditors. Students may audit one course per semester with the professor's permission. Auditors must be eligible for admission as regularly enrolled students (any person over the age of 18 or possessing a high school diploma or its equivalent.) Priority is always given first to students who register for credit; auditing is on a space available basis, and auditors are not permitted to change enrollment in the course to receive credit. Courses that include field trips are not eligible for audit.

Audit petitions are available at an Admissions and Records office. Students wishing to audit may attend the initial class meetings at the professor's discretion. A prospective auditor may request approval to audit at the conclusion of the add/drop period. If the professor approves and signs the audit petition, the auditor must obtain the signature of the appropriate division dean. The completed petition is then submitted to an Admissions and Records office. Audit petitions are not accepted until after the add/drop period has ended.

A $15 per unit non-refundable audit fee will be charged unless the student is enrolled in 10 or more units. Students are also responsible for any other applicable course fees. Students auditing a class without simultaneous enrollment in any other class are not eligible for tutoring services or campus health center services.

Reference: Sierra College Administrative Procedure 4070.

Computer and Network Use

The District has the right to monitor any and all aspects of the computer use and telephone voice mail systems, including employee or student email or voice mail, to ensure compliance with policies and procedures. The computers, computer accounts, and voice mail accounts given to employees and students are to assist them in the performance of their job duties or their academic studies. Employees and students should not have any expectation of privacy in anything they create, send, or receive via the computer or the telephone. The computer and telecommunication systems belong to the District and are intended for business and academic purposes only.

Computer and telecommunication resources and services include, but are not limited to, the following: host computers, file servers, work stations, stand-alone computers, laptops, software, and internal or external communications networks (Internet, commercial online services, mobile devices, and email systems) that are accessed directly or indirectly from the District's computer facilities.

Reference: Sierra College Board Policy 3720 and Administrative Procedure 3720.

Courses Designated as Repeatable

Under special circumstances, courses may be designated as repeatable. When a course is repeated, the grade received each time shall be included for purposes of calculating the student's grade point average. The following types of courses may be designated as repeatable:

- Courses for which repetition is required to meet the major requirements of CSU or UC for completion of a bachelor's degree;
- Intercollegiate athletics courses; and
- Intercollegiate academic or vocational competition courses.

Students are allowed to repeat these courses up to three times for a total of four enrollments. This enrollment limitation applies even if the student receives a substandard grade or "W" during one or more of the enrollments

in such a course, or the student petitions to re-enroll due to extenuating circumstances.

Reference: Sierra College Administrative Procedure 4227.

Credit for Prior Learning (CPL)

Students may demonstrate proficiency in a course eligible for Credit for Prior Learning (CPL) and receive college credit through the approved alternative methods for awarding credit listed below:

- Achievement of a satisfactory score on an Advanced Placement (AP) examination (https://catalog.sierracollege.edu/student-resources/admission-enrollment/academic-transfer-credit-programs/)
- Achievement of a satisfactory score on a high-level International Baccalaureate (IB) examination (https://catalog.sierracollege.edu/student-resources/admission-enrollment/academic-transfer-credit-programs/)
- Achievement of a satisfactory score on the College Level Examination Program (CLEP) (https://catalog.sierracollege.edu/student-resources/admission-enrollment/academic-transfer-credit-programs/)
- Evaluation of Joint Service Transcripts (JST)
- Achievement of an examination administered by other agencies approved by the District
- Evaluation of industry recognized credential documentation
- Evaluation of student-created portfolios
- Satisfactory completion of an institutional examination, known as Credit by Examination, administered by the college in lieu of completion of an active course listed in the current college catalog.

Once a student has a completed education plan, they shall be referred to the college's appropriate authority for assessment of prior learning if the student is a veteran or an active-duty member of the Armed Forces, holds industry-recognized credentials, or requests credit for a course based on their prior learning.

Reference: Board Policy 4235/Administrative Procedure 4235.

Directory Information

Directory information includes:

- name;
- dates of attendance;
- degrees and awards received, including honors, scholarship awards, athletic awards, and academic honors recognition;
- participation in officially recognized activities and sports, including weight, height, and high school of athletic team members.

Students who do not wish this information to be released must file a Restriction to Access request with an Admissions and Records Office.

Upon request, the college may release the following information to the federal military for the purpose of federal military recruitment: name, address, college email address, telephone number, date and place of birth, levels of education, major(s), degrees received, prior military experience, and/or the most recent previous educational institutions attended.

Reference: Sierra College Board Policy 5040 and Administrative Procedure 5040.

Drug-Free Environment

Sierra College is committed to providing a drug-free workplace and campus environment for students, faculty and staff. It emphasizes prevention and intervention through education. The unlawful manufacture, distribution dispensing, possession or use of alcohol or any controlled substance is prohibited on District property, during District-sponsored field trips, activities or workshops, and in any facility or vehicle operated by the district.

Violation of this prohibition will result in appropriate action up to and including termination of employment, expulsion, and referral for prosecution, or, as permitted by law, may require satisfactory participation in an alcohol or drug abuse assistance or rehabilitation program.

For confidential assistance and referral regarding drug and alcohol use, call:

Rocklin Campus

Counseling (916) 660-7400
Health Center (916) 660-7490

Nevada County Campus

Counseling (530) 274-5303
Health Center (530) 274-5317

Reference: Sierra College Board Policy 3550 and Administrative Procedure 3550.

Grade Changes

Course instructors determine the grades to be awarded to students, which shall be final except in cases of mistake, fraud, bad faith, or incompetence. "Mistake" may include, but is not limited to, clerical errors and errors made by an instructor in calculating a student's grade. "Fraud" may include, but is not limited to, inaccurate recording or change of a grade by any person who gains access to grade records without authorization.

The removal or change of an incorrect grade from a student's record shall only be done pursuant to Education Code 76232 or by alternative method that ensures that each student shall be afforded an objective and reasonable review of the requested grade change.

Provisions will be made to allow another faculty member to substitute for the instructor if the student has filed a discrimination complaint, if the instructor is not available or where the District determines that it is possible there may have been gross misconduct by the original instructor. Students requesting a grade change due to alleged harassment or discrimination shall refer to Administrative Procedure 3435. In the case of fraud, bad faith, or incompetence, the final determination concerning removal or change of grade will be made by the Dean of Student Services or designee. In all cases, the instructor who first awarded the grade will be given written notice of the change.

Change of Grade from Evaluative Symbol to Evaluative Symbol

Students wishing to challenge an evaluative grade received in a course (A, B, C, D, F, P, NP) must submit a change of grade request within one year after completing the course for which the grade change is being requested. After this period, if there are extenuating circumstances (i.e., verified cases of accidents, illnesses, or other circumstances beyond the control of the student), a change of grade request may be submitted to the Academic

Standards Committee; however, the period for a request may not exceed three years after the completion of the course.

Procedures Within One Year

- A student shall file a Grade Change Petition with an Admissions and Records office within one year after completing the course. Specific reasons for the request must be stated.
- The petition must be approved and signed by the appropriate instructor and dean. The instructor must cite a reason consistent with one of the conditions in Education Code 76224.
- Approved grade change petitions will be processed by an Admissions and Records office.

Procedures After the First Year, but Within Three Years

- If there are extenuating circumstances, a student shall file a Grade Change Petition with an Admissions and Records office up to but no later than three years after the completion of the course. In addition to procedures within one year listed above, the student must also attach to the petition sufficient documentation proving an accident, illness, or other circumstances beyond the control of the student that prevented them from submitting the grade change petition within one year of the course completion date.
- An Admissions and Records office shall validate the required data and forward the petition to the Academic Standards Committee for consideration.
- Academic Standards Committee approved grade change petitions will be processed by an Admissions and Records office.

Change of Grade from Evaluative Symbol to Non-Evaluative Symbol

To change an evaluative grade (A, B, C, D, F, P, NP) to a non-evaluative symbol (EW, W, MW, I, IP), an extenuating circumstance must be verified in writing. Extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the control of the student. A request for a change of grade to a non-evaluative symbol may not exceed three years after the completion of the course.

Procedures Within Three Years

- A student shall file a Grade Change Petition with an Admissions and Records office indicating the specific change requested.
- The petition must be supported and signed by the appropriate instructor and dean.
- The student must attach sufficient documentation proving an accident, illness, or extenuating circumstances beyond the control of the student.
- A campus Admissions and Records office will validate the required data and confirm the satisfaction of the conditions specified by Title 5 Section 55025.
- The petition will be forwarded to the Academic Standards Committee for consideration.
- Academic Standards Committee approved grade change petitions will be processed by a Admissions and Records office.

Change of Grade from Evaluative or Non-Evaluative Symbol to a Drop Prior to Census Date

- The student shall file a No Show Petition with a campus Admissions and Records office indicating no class attendance within the add/drop period. The petition must be filed within 30 days after the end of the class or by June 30th of the academic year in which the grade was received, whichever is earlier.

- The petition must be supported and signed by the appropriate instructor and dean.
- Approved petitions will be processed by a Admissions and Records office.

Reference: Sierra College Board Policy 4231 and Administrative Procedure 4231.

Grade Points and Units

The unit of work at Sierra College is the semester hour. Courses require a minimum of three hours of student work per week, per unit for the equivalent of an 18 week semester. One unit of lecture requires one hour of class time and two hours of outside study or homework per week. As laboratory courses require minimal study/work outside of class, one unit of laboratory requires three hours of class time per week. Expected hours per week may be adjusted based on the length of the term. All college work is measured in terms of both quantity and quality. The measure of quantity is the unit and the measure of quality is the grade point.

Grade points are awarded as follows:

Grade of A	4 points per unit
Grade of B	3 points per unit
Grade of C	2 points per unit
Grade of D	1 point per unit
Grade of F	0 points per unit

Grade point average (GPA) is calculated by dividing the total number of grade points by the total number of units attempted.

Nondegree-applicable credit courses shall not be included in calculating student degree-applicable grade point average.

Grading and Academic Record Symbols

Pursuant to section 55023 of Title 5, the grading practices of the District shall be as follows:

Evaluative Symbols

A	Excellent
B	Good
C	Satisfactory
D	Less than satisfactory
F	Failing
P	Passing (at least satisfactory); units awarded not counted in grade point average; has the same meaning as "CR," as that symbol was defined prior to the Summer 2009 term.
NP	No Pass (less than satisfactory or failing); units not counted in grade point average; has the same meaning as "NC," as that symbol was defined prior to the Summer 2009 term.

SP	Satisfactory Progress towards completion of the course (used for noncredit courses only)

Non-Evaluative Symbols

I	Incomplete academic work for unforeseeable, emergency and justifiable reasons at the end of the academic term; not used in calculating units attempted or for grade points.
IP	The In Progress symbol denotes that the class extends beyond the normal end of an academic term. It indicates that work is in progress but that assignment of an evaluative symbol must await its completion.
RD	The Report Delayed symbol is used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student.
W	Withdrawal from class or college is authorized through two thirds of the course term. The academic record of a student who remains in class beyond that date must reflect a grade other than a "W." Courses dropped prior to census, or its equivalent for short term courses, will not appear on the student's academic record.
MW	Military Withdrawal may be as-signed when a student who is a member of an active or reserve Unit-ed States military service receives orders compelling a withdrawal from courses. Upon verification of such orders, military withdrawal may be assigned at any time after the Add/Drop period. Military with-drawal shall not be counted in progress probation, dismissal cal-culations, or in calculating the permitted number of withdrawals.
EW	An excused withdrawal (EW) occurs when a student is permitted to withdraw from a course(s) due to specific events beyond the control of the student affecting his/her ability to complete a course(s) and may include a job transfer outside the geographical region, an illness in the family where the student is the primary caregiver, when the student who is incarcerated in a California state prison or county jail is released from custody or involuntarily transferred before the end of the term, when the student is subject toanimmigration action, or other extenuating circumstance making completion impracticable.In the case of an incarcerated student, an excused withdrawal cannot be applied if the failure to complete the course(s) was the result of the student's behavioral violation or if the student requested and was granted a mid-semester transfer. Upon verification of these conditions and consistent with the District's required documentation substantiating the condition, a withdrawal symbol of "EW" may be notatedat any time after the period established by the District during which no notation is made for withdrawals. An excused withdrawal will not be counted toward the permitted number of withdrawals or counted as an enrollment attempt, nor will it be counted in progress probation and dismissal calculations.

Since professors have the responsibility for evaluating student perfor-mance and assigning final grades, students are encouraged to discuss their grades with professors at any time. All grades are final and are not subject to change except as outlined in Education Code Section 76224.

Grades will be available approximately four weeks after the end of each semester.

Reference: Sierra College Board Policy 4230 and Administrative Procedure 4230.

Incomplete Academic Work

If, due to unforeseeable, emergency and justifiable reasons, a student has not completed academic work at the end of a semester/session, an incomplete "I" symbol may be requested. It is the primary responsibility of the student to request an incomplete. A student may obtain an Incomplete Petition from a campus Admissions and Records office and submit it to the professor for approval. If approved, the professor will file a written record of the conditions for removal of the "I" and the grade assigned in lieu of its removal. The student may not re-enroll in the course, but instead works with

the professor to complete the required academic work no later than one year after the end of the term in which the incomplete was assigned. The student must submit a grade change petition upon completion of the work. A final grade will be assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed.

Incomplete symbols are not used in calculating units attempted or grade points.

Reference: Sierra College Board Policy 4230 and Administrative Procedure 4230.

Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

In compliance with the Clery Act, Sierra College publishes and distributes an annual security report. The report includes statistics for the previous three years concerning reported crimes that occurred on-campus; in certain off-campus buildings or property owned or controlled by Sierra College; and on public property within or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. You may obtain a copy of the report by contacting the Campus Parking and Security Services Office or by accessing our website (https://www.sierracollege.edu/about-us/visit/security.php). Public information regarding sex offenders may be obtained by accessing the Megan's Law website at www.meganslaw.ca.gov. (http://www.meganslaw.ca.gov)

Reference: Sierra College Board Policy 3515 and Administrative Procedure 3515.

Limitations on Active Participatory Courses

Courses formerly designated as repeatable "activity" courses are now defined as non-repeatable "active participatory courses." These courses have individual study or group assignments as the basic means by which learning objectives are obtained. Active participatory courses in physical education, visual arts, and performing arts that are related in content include groups of distinct courses with similar primary educational activities that have been separated into skill levels or variations and are separated with different student learning objectives or outcomes for each level or variation.

Students are limited to a maximum of four enrollments within each of these course groupings, also known as course families, regardless of the number of courses included in each family. This limitation applies retroactively to all prior enrollments in courses now included in a family; applies even if students receive substandard grades or withdrawals for one or more of the enrollments; and applies to re-enrollments due to extenuating circumstances.

Applied Art and Design Families

Code	Title	Units
AAD Design Fundamentals		
AAD 0060	Graphic Design I: Principles and Process	
AAD 0070	Graphic Design II: Introduction to Digital Design	
AAD Digital Product Development		
AAD 0087	Content Management Systems for Designers	
AAD 0090	Interaction Design for Web Products	
AAD Front End Web Development		
AAD 0085	Introduction to Web Design	
AAD 0086	Intermediate Web Design	
AAD Graphic Design		
AAD 0061	Graphic Design III: Branding and Production	
AAD 0062	Digital Illustration	
AAD Illustration and Drawing		
AAD 0044	Sketching for Design	
AAD 0055	Illustration (also known as ART 0055)	
AAD Publication Design		
AAD 0052	Publication Design I	
AAD 0053	Publication Design II	
AAD 0054	Typography	
AAD Video		
AAD 0079	Introduction to Digital Filmmaking and Video Production	
AAD 0082	Intermediate Digital Filmmaking	
AAD 0093	Introduction to Motion Graphics	
AAD 0089	Documentary Filmmaking (also known as PHOT 0089)	

Art Families

Code	Title	Units
ART Alternate Materials		
ART 0032A	Fiber Arts I	
ART 0034	Collage and Assemblage	
ART Ceramics		
ART 0017	Ceramic Sculpture/Handbuilding	
ART 0018A	Ceramics I	
ART 0018B	Ceramics II	
ART 0020	Raku Ceramics	
ART Drawing		
ART 0004A	Drawing I	
ART 0004B	Drawing II	
ART Figure Drawing		
ART 0005A	Figure Drawing I	
ART 0005B	Figure Drawing II	
ART 0052	Portrait Drawing and Painting	
ART Metal		
ART 0022	Metal Arts	
ART 0024	Advanced Metal Arts	
ART 0041	Introduction to Jewelry and Metalsmithing	
ART Oil and Acrylic Painting		
ART 0007A	Oil Painting I	
ART 0007B	Oil Painting II	

ART 0009A	Acrylic Painting I
ART 0009B	Acrylic Painting II
ART Watercolor Painting	
ART 0008A	Watercolor Painting I
ART 0008B	Watercolor Painting II
ART Printmaking	
ART 0040A	Printmaking I
ART 0040B	Printmaking II
ART Sculpture	
ART 0012A	Sculpture I
ART 0012B	Sculpture II
ART 0019	Figure Sculpture
ART Visual Art Fundamentals	
ART 0002	Two-Dimensional Design Foundations
ART 0003	Three-Dimensional Design Foundations
ART 0006C	Color Theory

Kinesiology Families

Code	Title	Units
KIN Adapted		
KIN 0071	Adapted Aquatics	
KIN 0072	Adapted Aerobic Fitness	
KIN 0073	Adapted Individualized Exercises	
KIN Aerobic Fitness - Resistance		
KIN 0006	Physical Fitness	
KIN 0007	Aerobic Fitness	
KIN 0009	Cardio Kickboxing	
KIN 0040	Water Exercise for Fitness	
KIN 0069	Mat Pilates	
KIN Aerobic Training - Weights		
KIN 0003A	Cardio Fitness - Level I	
KIN 0003B	Cardio Fitness - Level II	
KIN Ballet		
KIN 0050A	Ballet I	
KIN 0050B	Ballet II	
KIN Basketball		
KIN 0027	Recreational Basketball	
KIN 0096	Sports Activities	
KIN Country Dance		
KIN 0055	Line Dance	
KIN Instruction		
KIN 0011	Instructional Methods for Group Fitness	
KIN 0012	Instructional Methods for Personal Trainers	
KIN Pickleball		
KIN 0036A	Beginning Pickleball	
KIN 0036B	Intermediate Pickleball	
KIN Self Defense		
KIN 0018	Peaceful Self Defense	
KIN 0019	Basic Self Defense	
KIN 0020	Multi Self Defense System	
KIN 0024	Self-Defense for Personal Safety	
KIN Soccer		
KIN 0031A	Soccer Level I	
KIN 0031B	Soccer Level II	
KIN 0035A	Futsal - Level I	
KIN 0035B	Futsal - Level II	
KIN Swimming		
KIN 0041	Fundamentals of Swimming	
KIN 0042	Swimming Conditioning	
KIN Volleyball		
KIN 0033	Volleyball	
KIN 0034	Beach Volleyball	
KIN Weight Training		
KIN 0004	Cross Training	
KIN 0005A	Weight Training	
KIN 0005B	Strength Training - Circuit and Power Lifting	
KIN 0005C	Weight Training - Advanced	
KIN Wellness		
KIN 0010	Fitness and Improved Health Boot Camp	
KIN 0068	Introduction to Meditation	

Music Families

Code	Title	Units
MUS Ear Training		
MUS 0003A	Ear Training I	
MUS 0003B	Ear Training II	
MUS 0004A	Advanced Ear Training I	
MUS 0004B	Advanced Ear Training II	
MUS Guitar		
MUS 0057A	Beginning Guitar	
MUS 0057B	Beginning Guitar	
MUS 0058A	Intermediate Guitar	
MUS 0058B	Intermediate Guitar	
MUS Music Production		
MUS 0014	Introduction to Commercial Music Production	
MUS 0015	Audio Recording	
MUS 0016	Media Content and Public Event Technology	
MUS 0018	Live Sound	
MUS Piano		
MUS 0040A	Beginning Piano I	
MUS 0040B	Beginning Piano II	
MUS 0040C	Intermediate Piano I	
MUS 0040D	Intermediate Piano II	
MUS Voice		
MUS 0039A	Beginning Voice	
MUS 0039B	Intermediate Voice	
MUS 0039C	Advanced Voice I	
MUS 0039D	Advanced Voice II	

Photography Families

Code	Title	Units
PHOT Alternative Processes		
PHOT 0092	Alternative Processes	
PHOT 0093	Advanced Alternative Processes	
PHOT Commercial Photography		
PHOT 0070A	Studio Lighting	
PHOT 0070B	Advanced Studio Lighting	
PHOT Digital Imaging		
PHOT 0075	Introduction to Photoshop (also known as AAD 0075)	
PHOT 0076	Advanced Projects in Photoshop (also known as AAD 0076)	
PHOT Digital Photography		
PHOT 0063	Digital Photography	
PHOT 0080	Color Photography	
PHOT Documentary Photography		
PHOT 0065	Documentary Photography	
PHOT 0090J	Photojournalism Field Workshop	
PHOT Field Workshops: Outdoor		
PHOT 0090L	Field Workshop: Landscape	
PHOT 0090N	Color Nature Photography Field Workshop	
PHOT 0090T	Field Workshop: Travel Photography	
PHOT Photography Foundations		
PHOT 0060A	Beginning Photography	
PHOT 0060B	The Creative Image	
PHOT Portrait Photography		
PHOT 0090P	Outdoor Portrait Workshop	
PHOT 0090W	Wedding and Event Photography Field Workshop	
PHOT Technical Photography		
PHOT 0090I	Night Photography Field Workshop	
PHOT 0090U	Drone Photography and Videography	

Theatre Arts Families

Code	Title	Units
THEA Costuming		
THEA 0016B	Costume Construction	
THEA 0017	Stage Makeup	
THEA Performance Cast		
THEA 0023A	Rehearsal and Performance - Cast I	
THEA 0023B	Rehearsal and Performance - Cast II	
THEA 0023C	Rehearsal and Performance - Cast III	
THEA 0023D	Rehearsal and Performance - Cast IV	
THEA Production Crew		
THEA 0022A	Production Crew I	
THEA 0022B	Production Crew II	
THEA 0022C	Production Crew III	
THEA 0022D	Production Crew IV	
THEA Stagecraft		
THEA 0014	Stagecraft	
THEA 0019A	Stage Properties	
THEA 0019B	Scenic Painting	

Non-Discrimination Policy

The Sierra Joint Community College District has established non-discrimination policies which conform to applicable state and federal laws. These statutes prohibit discrimination and sexual harassment against all students. It is District policy to provide equal opportunities for all students in admission and access to academic courses, counseling programs, athletic programs, apprenticeship programs, assessment procedures, vocational/career education and other activities, without regard to students' race, color, religious creed, national origin, ancestry, ethnic group identification, physical or mental disability, gender, sexual orientation or lack of English language skills. Inquiries concerning compliance may be addressed to the Equal Employment Opportunity Officer, (916) 660-7006.

The Sierra Joint Community College District does not discriminate on the basis of disability in admission, access, treatment, or employment for any of its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder prohibit such discrimination. Students seeking information regarding Section 504 should contact the Disabled Student Programs and Services Office at (916) 660-7460. The District is in compliance with the Americans with Disabilities Act of 1990. Inquiries concerning compliance may be addressed to the Equal Employment Opportunity Officer, (916) 660-7006. Students seeking information regarding Section 504 of the 1973 Rehabilitation Act should contact the Disabled Student Programs and Services Office at (916) 660-7460.

Reference: Sierra College Board Policy 3410 and Administrative Procedure 3410.

Pass/No Pass Grading

"Pass/No Pass" grades exist to permit students to attempt a class in which they are interested but feel the risk of failure may be high. Students may elect to take one class per term on a pass/no pass basis unless the catalog expressly limits the grading for a particular course to a letter grade only (A, B, C, D, F). It is important to keep in mind that some CSU and UC campuses may have limitations on the number of pass/no pass courses that may be used to meet degree requirements. The UC system allows a maximum of 14 semester units taken pass/no pass to satisfy the minimum admission requirement of 60 transferable semester units. Pass/No Pass grading is subject to the following regulations:

1. The course must be outside the student's major.
2. Students must submit a Pass/No Pass petition by the last day if instruction. Check on mySierra or with a campus Admissions and Records office for deadlines.
3. A grade of "A," "B," or "C" will become a "P" (Pass); a grade of "D" or "F" will become an "NP" (No Pass).
4. Units earned with a P grade are not used to calculate grade point averages.
5. Units attempted for which NP is recorded are used in determining probation and dismissal.
6. A non-repeatable class in which a P was received may not be repeated. A class in which an NP was received may be repeated on a Pass/No Pass basis only.
7. Once the class has begun, the filed petition for Pass/No Pass cannot be withdrawn nor the decision be reversed; however, changes in major

may result in P/NP grades being changed to letter grades after review by a counselor.

Reference: Sierra College Administrative Procedure 4232.

Posting of Materials

Students and the community at large shall be provided with bulletin boards for use in posting student materials at convenient campus locations.

Reference: Sierra College Administrative Procedure 3900.

Prerequisites, Corequisites and Advisories

It is the intent of Sierra College to guide students to courses in which they will have the greatest chance of academic success. Therefore, some courses listed in this catalog have either a prerequisite, a corequisite, or advisory preparation. If no prerequisite, corequisite or advisory information is indicated there are no conditions of enrollment. The following are the definitions for prerequisites, corequisites and advisory preparation:

"Prerequisite" means a condition of enrollment that students are required to meet in order to demonstrate current readiness for enrollment in a course or educational program. "C" is the designated minimum grade for prerequisite courses.

"Corequisite" means a condition of enrollment consisting of a course that students are required to simultaneously take in order to enroll in another course.

"Advisory" means a condition of enrollment that students are advised but not required to meet before or in conjunction with enrollment in a course or educational program.

Prerequisite Clearance Procedures

Students who have met a prerequisite in high school or at another college may submit transcripts for review and prerequisite clearance. All documents, including the Prerequisite Clearance form (available online), should be submitted to Placement and Testing Services, emailed to assessment@sierracollege.edu. Results are available within 3-5 business days after submission and are accessible online via mySierra.

Prerequisite/Corequisite Appeal Procedures

Any prerequisite or corequisite may be appealed by a student on one or more of the grounds listed below:

1. The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;

2. The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite has not been made reasonably available;

3. The student believes that the prerequisite or corequisite has been established in violation of regulations and/or the College's policy and procedures; or

4. The student believes that the prerequisite or corequisite is unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.

Prerequisite/Corequisite Appeal forms may be obtained at the following locations:

- Placement and Testing Services
- Counseling Centers
- Academic Division Offices.

The Prerequisite/Corequisite Appeal form must be submitted to the appropriate academic division office for the prerequisite/corequisite being appealed. The appeal will be reviewed within 5 working days, and the results will be accessible online via mySierra. If approved, the student will be permitted to enroll in the course.

Reference: (http://www.sierracollege.edu/_files/resources/about-us/board/policies/chapter3/Administrative-Procedure-3900.pdf)Sierra College Board Policy 4260 and Administrative Procedure 4260.

Prohibition of Harassment

All forms of harassment are contrary to basic standards of conduct between individuals and are prohibited by state and federal law, as well as Board Policy, and will not be tolerated. Sierra College is committed to providing an academic and work environment free of unlawful harassment. The District shall be free of sexual harassment and all forms of sexual intimidation and exploitation including acts of sexual violence. It shall also be free of other unlawful harassment, including that which is based on any of the following statuses: race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, or sexual orientation of any person, or military and veteran status, or perception of having one or more of the foregoing characteristics. Students who wish to review Sierra College's complete Prohibition of Harassment policy, or who believe they may have been the victim of harassment should contact the Equal Employment Opportunity Officer, (916) 660-7006.

Reference: Sierra College Board Policy 3430 and Administrative Procedures 3430 and 3435.

Remedial Coursework Limit

Students may choose to enroll in remedial coursework and are limited to no more than 30 semester units of credit for remedial coursework unless exempt by statute. These nondegree-applicable basic skills credit courses are taught in reading, writing, computation, and English as a Second Language, and are numbered in the 500 series. Students enrolled in English as a Second Language and students identified by the District as having a learning disability are exempted from the unit limitation. Students may petition for a waiver of the unit limitation if they show significant, measurable progress toward the development of skills appropriate to enrollment in degree-applicable credit courses. For further details, contact a counselor.

Reference: Sierra College Administrative Procedure 4222.

Smoking, Use of Tobacco, Non-Regulated Nicotine and Other Vapor Producing Products on Campus

Sierra College is committed to providing a safe and healthy environment for its students, employees, and visitors. In light of evidence that the use of tobacco and exposure to secondhand smoke pose significant health hazards, the District has established a smoke, vapor, and tobacco-free environment. The use of such products is prohibited upon all District owned or controlled properties and in all vehicles owned, leased, or operated by

the District. This includes cigarettes, pipes, cigars, other tobacco products, or the smoking of any substance. The use of smokeless tobacco products (e.g., chewing tobacco) and the use of non-regulated nicotine or other vapor producing products (e.g., electronic cigarettes) is also prohibited. Violators of this policy shall be deemed to have disrupted the orderly operation of the College, may be required to leave the premises, and shall be subject to citation and fines.

Reference: Sierra College Board Policy 3570 and Administrative Procedure 3570.

Speech: Time, Place and Manner

The District is committed to providing its students and the community at large the ability to exercise their rights of free expression subject to the time, place and manner contained in Board Policy 3900.

District sites are non-public forums except for the areas that are defined as limited public forums. These limited public forums are available to students and the community and include all outdoor areas that are outside 30 feet of any building or similar structure. The District reserves the right to revoke the limited public forum designation and apply a non-public forum designation based not on speech content but on previously scheduled, dedicated use of a particular space that has been reserved for District-related functions.

The use of the limited public forums is subject to the following:

Persons using the limited public forum and/or distributing material in the limited public forums shall not: impede the progress of passersby, nor shall they force passersby to take material; not touch, strike or impede the progress of passersby, except for incidental or accidental contact, or contact initiated by a passerby; not use any means of amplification that creates a noise or diversion that disturbs or tends to disturb the orderly conduct of the campus or classes taking place at that time.

No persons using the limited public forums shall solicit donations of money, through direct requests for funds, sales of tickets or otherwise, except where he or she is using the limited public forums on behalf of and collecting funds for an organization that is registered with the Secretary of State as a nonprofit corporation or is an approved Associated Students Organization or club.

All persons using the limited public forums shall be allowed to distribute petitions, circulars, leaflets, newspapers, and other printed matter. Such distribution shall take place only within the limited public forums. Material distributed in the limited public forums that is discarded or dropped in or around the limited public forums other than in an appropriate receptacle must be retrieved and removed or properly discarded by those persons distributing the material prior to their departure from the limited public forum that day.

Speech shall be prohibited that is defamatory, obscene according to current legal standards, or which so incites others as to create a clear and present danger of the commission of unlawful acts on district property or the violation of district policies or procedures, or the substantial disruption of the orderly operation of the District.

Nothing in this policy shall prohibit the regulation of hate violence, so long as the regulation conforms to the requirements of the First Amendment to the United States Constitution, and of Section 2 of Article 1 of the California Constitution. The District will take action as appropriate for harassment, threats, intimidation, or hate violence unless such speech is constitutionally protected.

Reference: Sierra College Board Policy 3900 and Administrative Procedure 3900.

Student Accessibility Services (SAS) Academic Accommodations Policy

Student Accessibility Services (SAS) (formerly Disabled Students Programs and Services (DSPS)) provides programs and support services to students with verified disabilities. The program assures that disabled students have equality of access to classes and programs.

The goal of providing reasonable academic accommodations to students with disabilities is to minimize the effects of the disability in the educational process. The disabled student needs to be given the opportunity both to acquire information and to be evaluated in a way which allows the student to fully demonstrate knowledge of the subject. Academic accommodations are individually determined by SAS certificated faculty in consultation with the student and are based on a review of the functional educational limitations associated with the disability. Appropriate reasonable accommodations will be made in a timely manner.

Student Responsibilities

1. The student must be enrolled in Sierra College classes and must provide the SAS office with a written verification of their disability including identification of educational limitation(s) due to the disability.

2. Before each semester and/or as needed during the semester the student will schedule an appointment to meet privately with a SAS certificated faculty member to request academic accommodation(s). The student may, at any time, also request the accommodation directly from the classroom professor.

3. The SAS certificated faculty member will evaluate the requested accommodation on a course-specific basis and will consult as necessary with the student, class professor(s), and SAS Educational Administrator to identify the appropriate reasonable academic accommodation for each class. Where it is determined that the accommodation would fundamentally alter the nature of a class or program, the SAS certificated faculty member will consult further with the professor to determine whether an alternative accommodation can be identified. A Disabled Student Services Academic Accommodation Certification form will be completed for each class and provided to the student at the time of the appointment.

4. The student will give a copy to the classroom professor to certify the college's authorization of the accommodation. A copy of the certification will be provided to the student and a copy will be maintained in the student's SAS file.

If the student disagrees with the accommodation determination:

1. The student should contact the SAS certificated faculty at any time for further interaction. If the student continues to disagree with the accommodation, he/she will be referred to the SAS Educational Administrator or designee. If there is not further contact made by the student it will be assumed that the student no longer disagrees with the accommodation determination.

2. The SAS Educational Administrator or designee will discuss and confer with the SAS certificated faculty member, the class instructor and other resources as appropriate to review the student's disability and make a determination regarding the appropriate accommodation

within five instructional days from the date the student contacted the SAS Educational Administrator.

3. If the student is still not satisfied with the disposition of this accommodation, the SAS Educational Administrator will refer the request to the District ADA/504 Compliance Officer. The Compliance Officer will confer with all necessary parties and make a final determination on behalf of the District within thirty instructional days from the date the certification was signed by the SAS certificated faculty member.

Reference: Sierra College Board Policy 5140 and Administrative Procedure 5140.

Student Course Repetition

Course repetition occurs when a student, who has previously received an evaluative symbol in a credit course, re-enrolls in that course and receives an evaluative symbol.

- Students may not repeat a course if a grade of "C" or better was earned, unless the course is identified as repeatable in the course description. An exception may be granted for extenuating circumstances or lapse of time.
- Students may repeat a course determined to be legally mandated regardless of whether substandard academic work has been previously recorded. Such courses may be repeated for credit any number of times. Students may re-enroll in courses that the District has determined to be required by statute or regulation as a condition of paid or volunteer employment. Students may be required to provide evidence that they are required to re-enroll as a condition of their paid or volunteer employment. The grade received by the student each time will be included in calculations of the student's grade point average.
- Students may petition to re-enroll in a course as a result of a significant change in industry or licensure standards as necessary for the student's employment or licensure.
- Students with disabilities may enroll multiple times in courses designated as "special classes" when an individualized determination verifies that such repetition is required as a disability-related accommodation.
- Students are allowed to enroll more than once in an occupational work experience course for a total of no more than 16 semester units. Occupational Work Experience includes all courses numbered 95 and Personal Development 94. The grade received each time shall be included for purposes of calculating the student's GPA.
- A non-repeatable course may be attempted up to a maximum of three times per credit course if a substandard grade (grade lower than a "C," "NC," "NP") or a withdrawal ("W") was earned. Enrollment attempts include any combination of withdrawals and substandard grades. (Note: excused and military withdrawals are not included.) An exception may be granted for extenuating circumstances.
- When course repetition occurs, the last grade ("A," "B," "C," "D," "F") and credit earned will be included in the computation of the grade point average.
- Courses that are repeated are recorded on the student's permanent academic record using the appropriate symbol for repetition.
- Annotating the permanent academic record is done in such a manner that all work remains legible, insuring a true and complete academic history.

- Nothing will conflict with Education Code Section 76224 pertaining to the finality of grades assigned by instructors, or with Title 5 or district procedures.
- Courses offered for a variable number of units must be repeated for the same or greater number of units.

Course Repetition Due to Extenuating Circumstances

A student may petition to repeat a course based on a finding that the student's previous attempt (whether substandard grade, passing grade, or withdrawal) was, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accident, illness or other circumstances beyond the control of the student.

The petition is filed with an Admissions and Records office and must indicate the extenuating circumstances warranting the repeat. When repetition is approved, the previous grade and credit will be disregarded in computing the student's GPA. The petition must have approval from the division dean and recommendation from a counselor and/or instructor.

Course Repetition Due to Significant Lapse of Time

A student may be permitted or required to repeat a course one time in which a "C" or better grade was earned if:

1. There has been a significant lapse of time since the grade was received. Significant lapse of time is defined as a minimum of seven years; each discipline has the authority to institute significant lapse of time as less than seven years by program and/or course. A list of exceptions is maintained in the Instruction Office; and
2. The District has established a recency prerequisite for a course or program; or
3. An institution of higher education to which a student wishes to transfer has established a recency requirement that the student cannot satisfy without repeating the course.

When a student needs to repeat an active participatory course due to significant lapse of time, each repetition attempt will be counted toward the established repetition limits. However, if a student has already exhausted the number of permitted repetitions, then one additional repetition due to significant lapse of time may be permitted.

When a course is repeated due to significant lapse of time, the new grade and unit(s) will be included in the student's grade point average and total units completed. The grade and unit(s) from a previous attempt will be disregarded.

Reference: Sierra College Board Policies/Administrative Procedures Chapter 4.

Student Records

Student records are maintained by campus Admissions and Records offices. Students are responsible for regularly checking their mySierra account to ensure receiving registration and financial aid information.

Family Educational Rights and Privacy Act (FERPA)

Sierra College maintains student records and privacy in accordance with the Family Educational Rights and Privacy Act (FERPA) of 1974, as amended. FERPA sets forth requirements regarding the privacy of student records and protects students' rights to inspect and review their education records, to request to amend their education records, and to limit disclosure of personally identifiable information contained in education records.

Student education records are defined as records, files, documents and other materials that contain information directly related to a student, and are maintained by the institution or by a party acting for the institution. Education records are NOT: sole possession records, law enforcement unit records, employment records, medical records, or post-attendance records.

Student education records that are personally identifiable will not be released to a third party without the student's written consent unless one of the following situations applies:

- To college faculty, staff and administrators with a legitimate educational interest in the information.
- In response to a request for directory information.
- To Federal, State and local education authorities involving an audit, evaluation or compliance with education programs.
- Agents acting on behalf of the college (e.g., National Student Loan Clearinghouse).
- In connection with processing financial aid.
- Accrediting institutions.
- To comply with a judicial order or subpoena.
- In connection with a health or safety emergency if the information will assist in resolving the emergency.

Reference: Sierra College Board Policy 5040 and Administrative Procedure 5040 (https://go.boarddocs.com/ca/sierra/Board.nsf/goto/?open&id=BSZURV7D4F98#).

Student Right-to-Know Disclosure

In compliance with the Student Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of our college district to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2018, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three year period. Their completion and transfer rates are listed above. These rates do not represent the success rates of the entire student population at the College nor do they account for student outcomes occurring after this three year tracking period.

Based upon the cohort defined above, a Completer is a student who attained a certificate or degree or became 'transfer prepared' during a three year period, from Fall 2018 to Spring 2021. Students who have completed 60 transferable units with a GPA of 2.0 or better are considered 'transfer prepared '. Students who transferred to another post-secondary institution, prior to attaining a degree, certificate, or becoming 'transfer prepared' during a five semester period, from Spring 2019 to Spring 2021, are transfer students.

More information about Student Right-to-Know Rates and how they should be interpreted may be found at the California Community College Student Right-to-Know Rate Disclosure website (https://srtk.cccco.edu/271/srtk22.htm).

Title IX Information

It is the policy of the Sierra Joint Community College District to ensure compliance with Title IX of the Education Amendments of 1972 by assuring that no student or employee shall on the basis of sex be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity receiving federal financial assistance. Sierra College prohibits all forms of sexual violence, harassment, and discrimination. Such conduct violates Sierra College policies and may violate California law. Students or employees who engage in such behavior are subject to potential disciplinary and/or legal consequences. Under Title IX, discrimination and sexual violence can include: sexual assault, sexual harassment, exhibitionism, gender-based discrimination or harassment, intimate partner violence, non-consensual sexual contact, rape, sextortion, stalking, and voyeurism. Students are responsible for familiarizing themselves with Sierra College's policies and definitions related to Title IX Sexual Violence. All students are required to complete a sexual violence and sexual harassment prevention training provided by Sierra College. Detailed information about sexual violence prevention, including information on confidential campus and community resources are located on the Sierra College Title IX Website (https://www.sierracollege.edu/administration/title-ix/equity-and-consent/). Examples of educational programs and activities that may fall under Title IX, include, but are not limited to: student admissions, assessment procedures, counseling programs, access to academic courses, athletic programs, career technical education and other activities, etc. Persons with inquiries about the application of Title IX may contact the Title IX Coordinator:

Dr. LaToya Jackson, Director of Diversity, EEO & Title IX

5100 Sierra College Blvd.

Rocklin, CA 95677

Human Resources, U Building

(916) 660-7006

EEOT9@sierracollege.edu

www.sierracollege.edu/titleix (https://www.sierracollege.edu/about-us/admin-services/title-ix/)

Reference: Sierra College Board Policy 7715.

Transcripts

An official transcript is a sealed or verifiable PDF document of your academic record at Sierra College. Students may order an official electronic transcript or a sealed official transcript. A PDF transcript is considered official for the recipient only. When re-sent, PDF transcripts become unofficial.

Official academic transcripts may be requested through the following methods:

- Current Sierra College students and students who attended within the past year may order transcripts online through mySierra (https://sso.sierracollege.edu/cas/login/?service=https%3A%2F%2Fmysierra.sierracollege.edu%2Fc%2Fportal%2Flogin). This is the fastest way to order online, as a signature authorization is not required.
- Students who attended Sierra College over a year ago may order transcripts online through Parchment (https://www.parchment.com/u/registration/34320/institution/). An authorization form may be required.

One electronic and one paper requested from Sierra College are free of charge. The processing and transcript charges are as follows:

- PDF delivery service at a cost of $5.00 per transcript;
- Standard mail service at a cost of $7.00 per transcript;
- Rush processing - pick up (photo identification required) at a cost of $15 per transcript. Allow 24 hrs. to process. Orders placed after 12pm, will be available next business day;
- Domestic and international Federal Express delivery at a cost of $23.00 - $43.00 per transcript.

Allow 5–7 business days for processing regular orders and up to 14 days for orders with attachments or IGETC/GE Certifications.

Processing times do not include U.S. Postal Service mailing time. For more information on ordering official transcripts (https://www.sierracollege.edu/admissions/transcripts/), please visit the website or contact a campus Admissions and Records office, (916) 660-7340 or (530) 274-5302.

Unofficial transcripts are available through mySierra for students who have attended within the last year or are currently enrolled at Sierra College. Students who attended more than a year ago cannot order unofficial transcripts online; however, unofficial transcripts are available free of charge at an Admissions and Records office.

Transfer Articulation Agreements

Sierra College maintains formal articulation agreements with many transfer colleges and universities. These agreements specify how courses will be accepted at the transfer institutions. Articulation agreements with California State University and University of California campuses may be viewed at www.assist.org (http://www.assist.org/web-assist/welcome.html). ASSIST is the online official repository of articulation for California's public colleges and universities and provides the most accurate and up-to-date information about student transfer in California. ASSIST does not take the place of a counselor; it is intended to help students and counselors work together to establish an appropriate path toward transferring from a public California community college to a public California university.

Reference: Board Policy 4050/Administrative Procedure 4050

Use of Copyrighted Material

Employees and students shall not use copyrighted materials in a way which violates one of the copyright owner's exclusive rights without permission from the owner unless that use is allowed by the laws pertaining to fair use.

Reference: Sierra College Administrative Procedure 3750.

Visitors on Campus

All persons visiting the campus are expected to conduct themselves in accordance with standards of the District which are designed to perpetuate its educational purposes, and to comply with campus rules, city and county ordinances, appropriate educational code sections, and state laws.

Visitors are welcome at all public meetings held at District facilities. However, no person, including but not limited to children, relatives or friends of students or employees, shall attend any class, laboratory, field trip or any other instructional or educational activity for which they are not registered or enrolled without verifiable permission from the Dean, Director, Supervisor, or Instructor of Record.

Reference: Sierra College Board Policy 3920 and Administrative Procedure 3920.

Weapons on Campus

Firearms, knives, explosives, or other dangerous objects are prohibited on any District campus, District center, or in any facility of the District except for activities conducted under the direction of District officials or as authorized by an official law enforcement agency.

Reference: Sierra College Board Policy 3530 and Administrative Procedure 3530.

COURSES

Administration of Justice (ADMJ)

ADMJ 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

ADMJ 0050. Introduction to Administration of Justice
Units: 3
Hours: 54 lecture
Exploration of the history and philosophical roots of the U.S. justice system; in-depth study of the system and its sub-systems with emphasis on the total environment in which they operate; roles and role expectations of professionals as perceived from within and outside of the system; study of theories of crime, punishment, rehabilitation; exploration of research methodology of the discipline; analysis of the system interrelationship with society, punishments and incarceration alternatives. (C-ID AJ 110) (CSU, UC)

ADMJ 0051. Traffic Investigations and Enforcement
Units: 3
Hours: 54 lecture
Study of traffic management and enforcement. Emphasis on traffic law enforcement procedures, Vehicle Code violations, public safety, and collision investigations. (CSU)

ADMJ 0052. Criminal Court Process
Units: 3
Hours: 54 lecture
Comprehensive examination of the origin, development, philosophy and legal basis of criminal procedures in California; procedural statutes, case law, constitutional law and judicial rules governing pre-arrest, arrest, custody, crime charging, motions; applicable rules of discovery and evidence; California grand jury system; pretrial court procedures; adult and juvenile court procedures; verdict, sentencing and the appellate process. (C-ID AJ 122) (CSU)

ADMJ 0053. Police Field Operations
Units: 3
Hours: 54 lecture
History and development of patrol philosophy; field activities including patrol, complaints, requests for services, field interviews, searches, arrests, traffic problems, disturbances and other community or criminal incidents. (CSU)

ADMJ 0054. Introduction to Investigation
Units: 3
Hours: 54 lecture
Fundamentals of investigation; addresses the techniques, procedures, and investigation of crime, including organization of crime scene searches and recording; collection and preservation of evidence; sources of information; surveillance; interview and interrogation; follow-up investigation; resources; scientific analysis of evidence, case preparation and the role of the investigator in the trial process. (C-ID AJ 140) (CSU)

ADMJ 0055. Concepts of Criminal Law
Units: 3
Hours: 54 lecture
Historical development, philosophy of common and statutory law, and constitutional provisions related to due process; definitions, classifications, and general elements of crimes as applied to the administration of justice; legal research, review of case law, methodology, and concepts of law as a social force and analysis of criminal liability, defense to crimes and the classification of crimes against persons, property, morals and public welfare. (C-ID AJ 120) (CSU, UC)

ADMJ 0056. Introduction to Evidence
Units: 3
Hours: 54 lecture
Origin, development, philosophy and legal basis of evidence; types of evidence; ways of presenting evidence; judicial decisions and statutory rules of evidence governing the admissibility of testimony, writings, materials and objects at a criminal trial; constitutional and procedural considerations affecting searches, seizures, admissions, confessions and methods of identification. (C-ID AJ 124) (CSU)

ADMJ 0057. Juvenile Law and Procedure
Units: 3
Hours: 54 lecture
Organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles; techniques of handling juvenile offenders and victims; prevention and suppression of delinquency; diagnosis and referral; community resources; law and court procedures. (C-ID AJ 220) (CSU)

ADMJ 0058. Community and the Justice System
Units: 3
Hours: 54 lecture
In-depth survey of the relationship between the criminal justice system and the community; causal and symptomatic aspects of community misunderstanding, lack of cooperation and mistrust; the concept that community relations develop through a continuing process of interaction between the criminal justice system and members of the public. Methods for understanding how such a relationship is developed, changed and maintained. Examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population. (C-ID AJ 160) (CSU, UC)

ADMJ 0061A. Firearms Familiarization
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Introductory course covering history of firearms, types and selection of weapons, ammunition and auxiliary equipment, firearm nomenclature, principles of safe shooting, weapon safety, maintenance and care, legal and moral aspects of weapon usage for both law enforcement and non-law enforcement, and development of individual shooting skills and safety. Qualifying at the firing range with a handgun. Safety fee required. (not transferable)

ADMJ 0061B. Advanced Firearms
Units: 2
Advisory: Completion of any of the following: ADMJ 61A; 61C; 112; 115; 120; POST Basic Law Enforcement Academy
Hours: 54 (27 lecture, 27 laboratory)
An advanced course further developing skills and theory introduced in ADMJ 61A, with practical applications in varied complex settings. Emphasis on further study and practice of functional testing of firearms, sight alignment adjustments, and self-evaluation of shooting performance. Development of additional skills and knowledge necessary to teach firearm safety and techniques to enhance shooting skills. Safety fee required. (not transferable)

ADMJ 0061C. Firearms: Semi-Automatics
Units: 2
Advisory: Completion of any of the following: ADMJ 61A; 61B; 112; 115; 120; POST Basic Law Enforcement Academy
Hours: 54 (27 lecture, 27 laboratory)
Practical semi-automatic handgun course. Includes history and evolution of semi-automatics, types and uses, nomenclature, ammunition, marksmanship techniques, malfunctions, safety, and development of individual shooting skills. Safety fee required. (not transferable)

ADMJ 0061D. Firearms Instructor
Units: 2
Advisory: Successful completion of ADMJ 61A, 61B and 61C, or equivalent Firearms training, as determined by the course Instructor and/or ADMJ Department Coordinator
Hours: 54 (36 lecture, 18 laboratory)
Knowledge and skills to train others in firearm safety, marksmanship and range program development. Includes fundamentals of marksmanship, curriculum development, firearms safety, range management, handgun/shotgun theory and nomenclature, developing qualification courses and diagnosing shooting problems through practical shooting exercises. Firearms Instructor certificate issued for those achieving 80% on the written examination and range qualifications. (not transferable)

ADMJ 0062. Introduction to Corrections
Units: 3
Hours: 54 lecture
Provides a history and critical analysis of the various types of punishment, alternatives to punishment, and impact of punishment on the criminal justice system; explanations of criminal behavior; functions and objectives of the criminal justice system concerned with institutionalization, probation, parole, and other sentencing alternatives; critical examination of the types of correctional institutions, their clients, and contemporary correctional issues. (C-ID AJ 200) (CSU)

ADMJ 0067. Managing the Adult Offender
Units: 3
Advisory: Completion of ADMJ 62 with grade of "C" or better
Hours: 54 lecture
Survey course emphasizing behavior and characteristics of male and female offenders and the role of the correctional employee. Institutional environment, inmate subcultures, values, victimology, and gangs also discussed and analyzed. Population management issues, statistics, inmate rights, discipline and contemporary custody and treatment techniques identified and studied. (CSU)

ADMJ 0069. Institutional Corrections and Casework
Units: 3
Formerly known as ADMJ 63 and 66
Advisory: Completion of ADMJ 62 or 67 with grade of "C" or better
Hours: 54 lecture
Institutional security levels, operations, and design. Inmate classification, institutional programs, treatment and intervention modalities and casework responsibility. Fiscal issues, legislation, current issues and societal attitudes affecting corrections. Custodial and ancillary career opportunities. Tours of various correctional institutions required. (CSU)

ADMJ 0070. Substantive Law - Crimes and Punishments
Units: 3
Hours: 54 lecture
An in-depth study of Penal Code and other Codes which have an application to law enforcement and administration of justice. Includes misdemeanor and felony violations of the criminal statutes involving crimes against persons and property, public peace, dangerous weapons, narcotics, and vice violations. (CSU)

ADMJ 0072. Illegal Drugs - Recognition and Influence
Units: 3
Hours: 54 lecture
Study of current drugs of abuse including identification, street terms, prices, methods of use, history, and recognizing persons under the influence. Current law and law enforcement trends. Introduction to human physiology and drugs. (CSU)

ADMJ 0073. Report Writing for Criminal Justice
Units: 3
Hours: 54 lecture
Techniques for effectively communicating factual information in a clear, concise and thorough manner in the various types of reports used within the criminal justice system; emphasis on criminal justice terminology, use of English, and organization of information; practical experience in interviewing, note taking and report writing throughout the criminal justice system. (CSU)

ADMJ 0074. Digital Technology Used in Criminal Justice
Units: 3
Hours: 54 lecture
An overview of Information and Technology systems and strategies used in the administration of criminal justice; applying these systems and information across the spectrum of Crime Prevention and Intervention in a holistic manner to address Law Enforcement Investigations and Community Safety; topics covered include CAD (Computer Aided Dispatch), RMS (Records Management Systems), CCTV, Video Surveillance, Dash-Cams and Body-Cams, Automated License Plate Readers, Automated Gunshot Detection Systems, etc. (CSU)

ADMJ 0075. Values and Ethics in Criminal Justice
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
This course provides an introduction to concepts and theories of ethical decision-making, moral conduct, obligation, and permission, justice, and responsibility in administration of justice professions. The role of ethics, codes of conduct and appropriate moral judgments necessary in the field will be examined. Provides an understanding of values and integrity which must be displayed, and communication skills necessary to be an effective criminal justice practitioner. (CSU)

ADMJ 0076. Street and Prison Gangs
Units: 3
Hours: 54 lecture
Theories of gang membership and behavior; law enforcement, community, and correctional intervention; characteristics and activities of prison and street gangs; impact on correctional and law enforcement operations and society. (CSU)

ADMJ 0077. Terrorist Tactics and the Role of the First Responder
Units: 3
Hours: 54 lecture
Through the use of case studies, first responders gain knowledge and understanding of terrorist behavior, typologies of terrorism and extremism, its ideology and role in domestic and international terrorism, preventative measures, threat, vulnerability and risk assessment procedures, weaponry, post-blast issues and other concerns. (CSU)

ADMJ 0078. Introduction to Public Safety Dispatch
Units: 3
Also known as FIRE 80 and HSCI 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

ADMJ 0079. Fundamentals of Probation and Parole
Units: 3
Hours: 54 lecture
Provides an overview of Probation, Parole, and Supervised Release, as well as a modern-day comparison of each type of Correctional supervision. The coursework highlights tasks associated with pre-sentence investigations and supervision as well as the requirements and challenges of delivering purposeful, individualized, proportional, multidimensional, proactive, and responsive supervision that contributes to successful re-entry into society. This course also provides a combination of relevant course readings, interactive lesson plans, scenario-based exercises, and arranged courtroom and in-field experiences. (CSU)

ADMJ 0080. Introduction to Crime Scene Investigation
Units: 3
Hours: 54 lecture
Fundamentals of crime scene investigation and the forensic sciences for the basic investigator and field crime scene technician; addresses the theory, techniques, and procedures for evidence identification and collection at major and minor crime scenes; preservation of evidence, chain of custody; roles and responsibilities of investigators; scientific principals of forensics; inter-agency collaboration and resources; proper documentation in preparation for criminal trials. (CSU)

ADMJ 0088. Computer Forensics Fundamentals
Units: 3
Also known as IT 165
Advisory: Completion of ADMJ 54 and IT 120 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the methods used to properly conduct a computer forensics investigation, beginning with a discussion of ethics, while mapping the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools. (C-ID ITIS 165) (CSU)

ADMJ 0095. Internship in Administration of Justice
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

ADMJ 0110. PC 832 - Arrest
Units: 2
Hours: 44 (36 lecture, 8 laboratory)
This POST course covers ethics, courts, community relations, laws of arrest, use of force, search and seizure, investigations, and arrest and control methods. Meets California Penal Code Section 832 requirement for individuals having limited Peace Officer powers to complete a training course prescribed by the CA Commission on Peace Officer Standards and Training (POST). No longer meets modular Police Academy requirements. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0112. PC 832 - Firearms
Units: 0.5
Advisory: Completion of ADMJ 110 with grade of "C" or better
Hours: 24 (8 lecture, 16 laboratory)
This POST course covers legalities related to use of lethal force, shooting principles, safety guidelines and range qualifications. Meets California Penal Code Section 832 firearms requirement for individuals having limited Peace Officer powers to complete a training course prescribed by the Commission on Peace Officer Standards and Training (POST). Students are required to present a California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. May be repeated for credit to meet legally mandated education/training requirements. (pass/no pass grading) (not transferable)

ADMJ 0115. POST Module III Academy Training
Units: 8
Hours: 179 (131 lecture, 48 laboratory)
Satisfies Module III training requirements of the Commission on Peace Officer Standards and Training Module III. Covers professionalism and ethics, report writing, preservation of evidence, crimes against the justice system, vehicle operations, traffic enforcement, laws of search and seizure, custody, arrest/control/baton, emergency care, firearms/chemical agents, community policing, information systems and cultural diversity issues. Students are required to obtain California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. Students must also possess a valid driver's license and vehicle insurance during the course. Safety and materials fees required. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0120. POST Module II Academy Training
Units: 9.5
Hours: 231 (143 lecture, 88 laboratory)
Satisfies training requirements of the Commission on Peace Officer Standards and Training Module II. Covers community relations, criminal laws, search and seizure, evidence, report writing, enforcement techniques, crime scene investigation, property crimes, crimes against persons, investigations, arrest and control, firearms/chemical agents, crimes against the justice system, and cultural diversity/discrimination. Students are required to have successfully completed Commission on Peace Officer Standards and Training Module III training standards and to obtain California Department of Justice certification of no disqualifying criminal history preventing attendance, due on the first day of instruction. Students are required to possess a valid driver's license and vehicle insurance during the course. Students are also required to have passed the POST Entry Level Law Enforcement Test Battery (PELLETB) with a minimum t-score of 42 within one year prior to the first day of class. Safety and materials fees required. May be repeated for credit to meet legally mandated education/training requirements. (not transferable)

ADMJ 0151. Administration of Justice Pathways
Units: 3
Hours: 54 lecture
Covers career pathways in Administration of Justice. Includes educational planning of available degree programs, labor market research, and the hiring process: development of a resume, background investigations, Personal History Statements, interview dynamics, and hiring examinations. (CSU)

ADMJ 0200. Impact of Abuse and Violence
Units: 3
Hours: 54 lecture
Covers historical, cultural, psychological and social precursors and effects of the three primary forms of domestic violence: spousal/partner, child and elder abuse. Responsibilities and roles of law enforcement, prosecution, court, corrections, medical and social service professionals are studied. Crisis intervention, multi-disciplinary investigation and interviewing, forensic examination and adjudication issues are addressed. Examines other legal issues including mandated reporting and protective orders and explores both prevention and intervention resources available in the community. (not transferable)

Advanced Manufacturing (ADVM)

ADVM 0001. Technical Drafting I
Units: 3
Formerly known as DES 1
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Fundamental use of design equipment to create both two dimensional technical sketches and two and three dimensional computer generated (CAD) working drawings that are used for product definition. Introduction to product and process definition as specified by engineering design disciplines. This course teaches introductory 3D AutoCAD skills. Designed for students with no previous experience in engineering design/drafting. (CSU)

ADVM 0002. Technical Drafting II
Units: 3
Formerly known as DES 2
Prerequisite: Completion of ADVM 1 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Intermediate concepts of engineering design including sections, auxiliaries, threads, fasteners, and dimensional tolerancing. Basic concepts of Geometric Dimensioning and Tolerancing. Design for manufacturability and assembly explored to include material selection and properties of materials. This course teaches intermediate/advanced 3D AutoCAD skills. Designed for students who have attained a fundamental knowledge of the processes and practices of engineering design/drafting. (CSU)

ADVM 0003D. Design for Additive Manufacturing - 3D Printing
Units: 3
Formerly known as DES 3D
Hours: 90 (36 lecture, 54 laboratory)
Design for the additive manufacturing industry (3D printing). An in-depth look at the product design process and how it is used to create complex geometric models to satisfy defined requirements. An exploration of additive manufacturing's (or 3D printing's) impact on conventional manufacturing. Designed for students who are planning to pursue a career in Advanced Manufacturing. (not transferable)

ADVM 0011. Three-Dimensional Modeling
Units: 3
Formerly known as DES 11
Prerequisite: Completion of ADVM 2 or ADVM 3D or MECH 44 or ENGR 151 or ADVM 66 with grade of "C" or better; or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Processes employed in developing design solutions using a feature based parametric solid modeler. Includes 3D part and assembly modeling, and the development of 2-dimensional part, assemblies, welding and sheet metal drawings per ASME standards. SolidWorks is the solid modeler used. (CSU, UC)

ADVM 0012. Geometric Dimensioning and Tolerancing
Units: 3
Formerly known as DES 12
Prerequisite: Completion of ADVM 2 or ADVM 11 or ADVM 66 or ENGR 151 with grade of "C" or better or equivalent as determined by instructor
Hours: 54 lecture
Expands upon basic knowledge of dimensioning mechanical drawings by adding form and feature controls in order to clearly define parts. Review of basic dimensioning and tolerancing. Topics, as defined in ASME Standards, include geometric tolerancing symbols and terms, rules of geometric dimensioning and tolerancing, datums, material condition symbols, tolerances of form and profile, tolerances of orientation and runout, location tolerances and virtual condition. (CSU)

ADVM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ADVM 0062. Introduction to Computer Aided Design and Computer Aided Manufacturing
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Computer Aided Design (CAD) parametric modeling and Computer Aided Manufacturing (CAM) using CAD/CAM software. Covers practical on-the-job parametric modeling skills needed for precision machining. Students will learn skills needed to read and understand detailed drawings, create 3D CAD model files, develop a process plan for machining parts, and create CNC tool paths for manufacturing processes. (not transferable)

ADVM 0063. Design and 2-D Manufacturing of 3-D Objects
Units: 2
Hours: 72 (18 lecture, 54 laboratory)
Students will learn the basic working principles of water jet cutting, laser cutting, laser engraving, plasma cutting, CNC and manual press brake machinery. Class projects will be modeled using computer software and then cut, engraved, or formed using the appropriate manufacturing process for the job. (not transferable)

ADVM 0064. Computer-Aided 2D Design
Units: 3
Formerly known as WELD 64
Hours: 90 (36 lecture, 54 laboratory)
Study of Computer Numerically Controlled (CNC) cutting systems in the 2D world using industry standard hardware and development software. Topics include design principles, copyright, selection of materials, billing of materials and job estimating, basic G and M code commands, use of consumables, cut quality evaluation, and trouble-shooting techniques. (not transferable)

ADVM 0066. CNC Milling Level 1
Units: 3
Formerly known as WELD 66
Hours: 90 (36 lecture, 54 laboratory)
Intermediate course making billet aluminum parts from start to finish using HAAS CNC milling machines. Students will learn how to set up and operate HAAS CNC vertical machining centers. After the parts have been machined, students will use common industry measuring and inspection techniques to insure their parts are in tolerance. (not transferable)

ADVM 0067. CNC Milling Level 2
Units: 3
Formerly known as WELD 67
Prerequisite: Completion of ADVM 62 and ADVM 66 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Applications using three-axis CNC machining. Developing complicated part geometry with Computer Aided Design (CAD), importing files, planning machine operations, and developing machine codes by Computer-Aided Machining (CAM). Includes simulation modeling used to proof the assigned laboratory exercises and set-up for 3 axis operation of CNC machining centers. (not transferable)

ADVM 0068. Advanced Mill 4th and 5th Axis
Units: 3
Prerequisite: Completion of ADVM 67 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced CNC machining 4th and 5th axis Mill work. Developing complicated part geometry with Computer Aided Design (CAD), Post process CAM tool path development, planning machine operations, and developing machine codes and techniques for cost effectiveness. CNC Lathe operations. (CSU)

ADVM 0095. Internship in Advanced Manufacturing
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Agriculture (AGRI)

AGRI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

AGRI 0095. Internship in Agriculture
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AGRI 0156. Introduction to Plant Science
Units: 4
Also known as BIOL 21
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Emphasizes structure, growth, physiology and reproduction of flowering plants and their responses to modifications and environment; including propagation, media, soil and plant nutrition. Explores the interrelationship of plant science with other life sciences and technology. Applies principles of plant science to agricultural systems. (CSU, UC)

AGRI 0159. Integrated Pest Management
Units: 3
Formerly known as HORT 52
Hours: 54 lecture
Comprehensive study of integrated pest management with emphasis on sustainable management practices of landscape and small crop pests. Includes identification and study of insects, weeds, plant diseases, vertebrate pests, and beneficial organisms. Studies least toxic pest control strategies, labeling, formulations and safe handling of pesticides. (CSU)

AGRI 0160B. Methods of Propagation
Unit: 1
Formerly known as HORT 134B
Hours: 54 laboratory
Provides an advanced level of skill, technique and experience in spring plant production. In-depth studies of propagation materials, sexual and asexual reproduction, transplanting and planting. Preparation and use of propagation and planting media. (not transferable)

AGRI 0163. Wildland Trees and Shrubs (Dendrology)
Units: 4
Also known as BIOL 24
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A study of botanical characteristics, taxonomy, and physiology of the major trees and shrubs in the Western United States with emphasis on California. Discussion of plant community relationships, geographical ranges, and human impact on forest ecosystems. Identifying specimens under field conditions and using herbarium specimens. (CSU)

AGRI 0164. Sustainable Tree Care
Units: 3
Formerly known as HORT 40
Hours: 90 (36 lecture, 54 laboratory)
Sustainable arboriculture principles and practices for management and care of trees in urban, agricultural, and wildland-urban interface settings. Includes tree biology and culture; landscape tree identification; industry-approved tree maintenance, planting, staking, and pruning techniques; tree risk assessment and mitigation; appropriate selection and pruning of fruit trees. Basic concepts in forest management and current issues in urban and wildland forestry will also be covered. (CSU)

AGRI 0196. Introduction to Sustainable Agriculture
Units: 3
Hours: 54 lecture
Introduction to the concepts and principles of agroecology as applied to the design and management of sustainable agricultural systems. Includes examination of case studies connecting sustainable agriculture principles to farming practices. (CSU, UC)

AGRI 0198. Food, Society and the Environment
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Multiple perspectives and global connections between the environment, society and food production. Emphasis on agriculture's central position between nature and society and its key role in humanity's search for a productive and sustainable environment. (CSU, UC)

AGRI 0200. Introduction to Animal Science
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A scientific approach to the field of animal science and the interrelationships of domestic animals and their contribution to the modern agriculture industry. Introduces various disciplines, including cell function, genetics, anatomy and physiology, reproduction, nutrition, animal health, animal products and animal behavior. (C-ID AG-AS 104) (CSU, UC)

AGRI 0203. Animal Feeds and Nutrition
Units: 4
Formerly known as AGRI 12
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
An introduction to the feeds and nutrition of animals including basic digestive system anatomy and physiology; composition and selection of feeds; characteristics of nutrients; principles of nutrition; nutrient requirements of non-ruminant and ruminant animals; and formulating diets to meet these requirements. (CSU)

AGRI 0212. Direct Farm Marketing
Units: 2
Hours: 36 lecture
Overview of direct farm marketing. Includes innovative marketing alternatives for the small to medium size grower, proven methods of product development, promotion, pricing and distribution. (not transferable)

AGRI 0213. Agriculture Mechanics
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Shop skills essential to mechanized agriculture, including welding, metal and wood fabrication tools, electrical and plumbing. Proper selection, use, repair, and safety of the tools and equipment will be emphasized. (CSU)

AGRI 0215. Introduction to Agricultural Business and Economics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Provides an overview of the role agriculture business and economics play in United States and world economies and how these aspects impact the agricultural producer in day to day management, the consumer and the food system. Production and supply, marketing and demand, resource allocation and commodity pricing will be discussed as well as social and economic challenges of agriculture in urban and industrialized economies emphasizing California. (CSU, UC)

AGRI 0221. Introduction to Soil Science
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Soils as natural bodies formed by interactive environmental processes, classification and characteristics. Soil response to use and management including erosion, moisture retention, structure, cultivation, organic matter and microbiology. Laboratory topics include soil type, classification, soil reaction, soil fertility and physical properties of soil. (C-ID AG-PS 128 L) (CSU, UC)

Allied Health (ALH)

ALH 0001. Electronic Health Record/Billing
Units: 2.5
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in HSCI 3
Advisory: Completion of BIOL 55 or BIO 5 and BIO 6 with grade(s) of "C" or better
Hours: 63 (36 lecture, 27 laboratory)
How to document the total patient encounter in the Electronic Health Record using a current vendor product along with Medisoft Clinical Practice Management which incorporates the electronic billing process. (letter grade only) (not transferable)

ALH 0002. Medical Coding
Units: 3
Hours: 77 (44 lecture, 33 laboratory)
Students will acquire basic knowledge and the correct medical language for the functions of procedural and diagnostic coding in the ambulatory medical setting. In addition, students will learn to interpret and locate codes for procedural coding essentials using the CPT (Current Procedural Terminology) and diagnostic coding essentials using the ICD-10-CM (International Classification of Disease, clinical modification 10) manuals. Students will acquire the corresponding medical terminology required for abstracting and interpreting medical charts in order to code with the appropriate manuals. (letter grade only) (not transferable)

ALH 0003. Introduction to Pharmacology for Medical Assisting
Units: 2.5
Hours: 63 (36 lecture, 27 laboratory)
Introduction to the principles of pharmacology and medication forms, routes of administration, and common medication for each body system as used in the ambulatory setting. (letter grade only) (not transferable)

ALH 0004. Physical Exam Procedures
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Prepares students to perform clinical tasks within the scope of practice of a medical assistant. Skill competencies include preparation of exam rooms, assisting in physical examinations, acquisition of patient history and vital signs, introduction to oral medication administration, nutritional education planning and patient coaching, orthopedic bracing/casting, handling office emergencies, and performing nebulizers and electrocardiograms. (letter grade only) (not transferable)

ALH 0005. Medical Office Procedures
Units: 4
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Designed for the Clinical Medical Assistant to learn legal/ethical and accepted procedures for any ambulatory setting. Students will acquire the knowledge on how to properly answer interview questions, identify professional transferable skills needed in the industry, and how to develop a resume, cover letter, and engage in a mock interview. (letter grade only) (not transferable)

ALH 0006. Medical Office Laboratory Procedures
Units: 3
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Students will acquire skills to competently implement and evaluate standard laboratory tests as performed in medical offices or general lab settings. Emphasis on specimen collection, handling and storing procedures, analysis and interpretation of normal and abnormal lab values. Acquire phlebotomy skills that prepare students to practice within their scope of work as a medical assistant. (letter grade only) (not transferable)

ALH 0007. Medical Asepsis and Surgical Procedures
Units: 3.5
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 99 (45 lecture, 54 laboratory)
Students will acquire knowledge to apply theory to practice while assisting with minor office surgeries and wound care. Sterile and aseptic techniques, sterile field and instrument sanitization procedures and protocols prepare students with the necessary skills to practice within the scope of practice of a medical assistant. Students will perform training for recognizing risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standards specific to the healthcare professional and in accordance of the scope of practice of a medical assistant. Provides the American Heart Association (AHA) Basic Life Support/CPR certification for Healthcare Providers. (letter grade only) (not transferable)

ALH 0008. Medication Administration and Injection Procedures
Units: 3
Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Students will acquire and apply knowledge of various routes of medication administration and the related injection safety, techniques, and site selection. Medication dosage calculations, medication side effects and emergencies pertaining to medication administration will prepare students to practice within the scope of practice of a medical assistant. (letter grade only) (not transferable)

ALH 0009. Medical Assisting Clinical Practicum Experience
Units: 3
Prerequisite: Completion of ALH 5, 6, 7, and 8 with grades of "C" or better
Hours: 162 laboratory
Students will acquire clinical Medical Assisting experience in the work setting under the supervision of a licensed physician in a Board-Certified medical office setting or outpatient facility. (letter grade only) (not transferable)

ALH 0010. Introduction to Phlebotomy
Units: 3
Hours: 91 (43 lecture, 48 laboratory)
Introduction to the principles of Phlebotomy. Emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). Upon successful completion of ALH 10 and ALH 11, students will be eligible to sit for the phlebotomy exam to become a Certified Phlebotomy Technician I (CPT 1) with the state of California. (letter grade only) (CSU)

ALH 0011. Phlebotomy Clinical Practicum Experience
Units: 0.5
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ALH 10
Hours: 40 laboratory
Students will acquire Phlebotomy experience in the work setting under the supervision of a certified phlebotomist. The clinical practicum is conducted as a non-paid clinical laboratory experience. Students will perform at least 50 venipuncture procedures on patients that represent a variety of age groups and medical conditions. Emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). (letter grade only) (CSU)

ALH 0020. Introduction to Allied Health
Unit: 1
Hours: 18 lecture
Introduction to career choices in the Allied Health field. Topics include: education and career mapping, job outlooks, occupational and professional requirements, pay ranges, and employer expectations. Students will get hands-on experience related to various Allied Health occupations and gain insight into job roles and responsibilities through guest speakers. Course includes an overview of health care delivery systems, associated career opportunities, infection control, and laws governing patient confidentiality. Students will have the opportunity to participate in organized field trips. (letter grade only) (CSU)

ALH 0022. Basic Sciences for Surgical Technology
Units: 6.5
Prerequisite: Completion of HSCI 3 and BIOL 55 or BIOL 5 and BIOL 6 with grade(s) of "C" or better
Hours: 135 (108 lecture, 27 laboratory)
Review human anatomy and physiology for surgical procedures and common disease states requiring surgical intervention. Also covers medications used during surgery. Concepts of microbiology and basic physics are discussed as they are applied to operating room procedures and practices. Introduces operating room protocols and procedures, aseptic techniques, disinfection, sterilization, instruments, and equipment. (letter grade only) (not transferable)

ALH 0023. Patient Care Concepts for Surgical Technology
Units: 5.5
Hours: 99 lecture
Provides the student with a theoretical and practical understanding of the technology and practices used in caring for a patient undergoing a surgical procedure. Additional material covers the structure and function of a healthcare facility specifically the Operating Room. (letter grade only) (not transferable)

ALH 0024. Skills Lab for Surgical Technology
Units: 5.5
Prerequisite: Completion of ALH 22 and ALH 23 with grades of "C" or better
Hours: 297 laboratory
Students practice the clinical skills required to demonstrate competency in the operating room. Skills include, but are not limited to aseptic practices such as scrubbing, gowning and gloving, setting up the instrument table, positioning the patient, and passing instruments supplies and medications to the surgeon. Prepares the student for clinical internship. (letter grade only) (not transferable)

ALH 0025. Surgical Specialties for Surgical Technology
Units: 6
Hours: 108 lecture
Covers the most common procedures and equipment utilized by the surgical technologist during specialty surgery. These specialties include neurosurgery, vascular surgery, orthopedic surgery and others. Prepares the student for the national certification exam. (letter grade only) (not transferable)

ALH 0026. Surgical Technology Clinical Practicum
Units: 10
Prerequisite: Completion of ALH 24 and ALH 25 with grades of "C" or better
Hours: 540 laboratory
Provides the student with hands-on experience in the surgical suite caring for patients under the supervision of a surgical technologist or a registered nurse. They will also gain experience in patient and staff interaction and communication. It prepares the student for the national certification examination. (letter grade only) (not transferable)

ALH 0027. Law and Ethics for Allied Health Professionals
Units: 2
Hours: 36 lecture
Legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bio-ethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services for the allied health professional. (CSU)

ALH 0029. Certified Surgical Technologist (CST) Exam Prep
Unit: 1
Prerequisite: Completion of ALH 22, ALH 23, ALH 24, ALH 25, ALH 26 and ALH 27 with grades of "C" or better
Hours: 24 lecture
Preparation and review for the Certified Surgical Technologist (CST) examination offered by the National Board of Surgical Technology and Surgical Assisting. (letter grade only) (not transferable)

ALH 0030. Registered Behavioral Technician
Units: 5
Hours: 162 (54 lecture, 108 laboratory)
This course introduces the core principles and practices essential for a Registered Behavior Technician (RBT). Key topics include measurement and documentation/reporting, assessments, skill acquisition, behavior reduction, professional conduct, ethical responsibilities, and decision-making. The course also emphasizes the development of transferable skills crucial for professional success. Students will receive guidance on crafting a resume, cover letter, and reference page to use in their mock interviews and to enhance their career readiness. Upon successful completion of this course, students must meet additional requirements, including certification in First Aid and CPR (in-person only), passing a criminal background check and abuse registry check, providing a vaccination record, and completing high school (high school seniors in their final semester may apply). This course is part of a two-course certification sequence. Following this course, students will enroll in ALH 31. (letter grade only) (not transferable)

ALH 0031. Registered Behavioral Technician Clinical Practicum
Units: 0.5
Prerequisite: Completion of ALH 30 with grade of "C" or better
Hours: 40 laboratory
This course provides students with hands-on experience as Behavioral Technicians in a professional setting under the supervision of a Board-Certified Behavior Analyst (BCBA) or Program Specialist. Students will complete a minimum of 40 hours of practical work, focusing on measurement and documentation of behaviors, reporting, assessments, skill acquisition, behavior reduction, and adherence to professional conduct, ethical responsibilities, and decision-making protocols. Upon successful completion of the course and the associated competency forms, students will be eligible to sit for the Registered Behavior Technician (RBT) examination administered by the Behavior Analyst Certification Board (BACB) and qualify as a Registered Behavior Technician. (letter grade only) (not transferable)

Anthropology (ANTH)

ANTH 0001. Biological Anthropology
Units: 3
Hours: 54 lecture
Broad introduction to the science of biological anthropology. Topics include: the field of anthropology, the scientific method, evolutionary theory, genetics and inheritance, human variation, biology and behavior of living primates, and the fossil evidence of human evolution. (C-ID ANTH 110) (CSU, UC)

ANTH 0001L. Biological Anthropology Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ANTH 1
Hours: 54 laboratory
Introductory laboratory course designed to investigate the science of biological anthropology. Areas of study include the production and distribution of genetic variation, human osteology, human variation, comparative primate taxonomy, behavior and osteology, and fossil evidence for human evolution. Field trip required. Students are responsible for fees associated with required field trip. (C-ID ANTH 115L) (CSU, UC)

ANTH 0002. Cultural Anthropology
Units: 3
Hours: 54 lecture
Introduction to the study of human culture. Examines continuity and diversity in lifeways, knowledge, perspectives, practices and social institutions. Examples drawn from many different cultures and addresses multiple aspects of people's lives. Explores cultural change and intercultural interactions at local and global scales. Addresses the contemporary relevance of culture, cultural humility and cultural anthropology. (C-ID ANTH 120) (CSU, UC)

ANTH 0004. Native Peoples of North America
Units: 3
Hours: 54 lecture
Anthropological survey of the indigenous peoples and cultures of North America. Emphasizes ecological knowledges/practices, languages, material culture, social organizations, religion, mythologies, world view, and artistic representations and responses to change. Critical examination of the impact of tribal nations on each other as well as the interactions with other groups of people. Examines current conditions of Native American tribes and communities as well as contributions of Native Americans to the cultures of the Americas. Field trips may be required. (CSU, UC)

ANTH 0005. Introduction to Archaeology
Units: 3
Hours: 54 lecture
Survey of the history and theory of archaeology. Emphasis placed on techniques of archaeological data collection and analysis, cultural innovations and variations, reconstruction and interpretation of the past, and Cultural Resource Management work. Field trips may be required. (C-ID ANTH 150) (CSU, UC)

ANTH 0006. Introduction to Linguistic Anthropology
Units: 3
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore the many different ways people communicate. Examine how language is linked the way we see the world, ourselves and each other. Investigate how language works and how it changes over time. Study beliefs about language and their impacts. Examine how people use language to build and share meaning, to form, perform and change identities as well as to enact or resist power. (C-ID ANTH 130) (CSU, UC)

ANTH 0007. Native Peoples of California
Units: 3
Hours: 54 lecture
Anthropological survey of the indigenous peoples and cultures of California. Emphasizes ecological knowledges/practices, languages, material culture, social organizations, religion, mythologies, world view, artistic representations and responses to change. Critical examination of the impact of tribal nations on each other as well as the interactions with other groups of people. Examines current conditions of Native American tribes and communities in California as well as contributions of indigenous Californians to the cultures of the Americas. Field trips may be required. (CSU, UC)

ANTH 0009. Magic, Witchcraft, Ritual, Myth and Religion
Units: 3
Hours: 54 lecture
Exploration of supernatural beliefs and practices around the world and over time. Analysis of the forms and functions of myths, rituals, altered states of consciousness, spirit possession, religious movements, witchcraft, and curing. Investigation of the relationship between science, supernatural belief systems, and medicine. Examples dawn from many different cultures and addresses multiple aspects of people's religious and spiritual lives. (CSU, UC)

ANTH 0010. Introduction to Forensic Anthropology
Units: 3
Hours: 54 lecture
Overview of forensic anthropology, an applied field of physical anthropology. Emphasis on current techniques used in the analysis of human skeletal remains, medico-legal procedures, and the role of the anthropologist in the investigative process. Examines the basics of bone biology, methods of skeletal analysis, and recognition of bone trauma and pathological processes. (CSU, UC)

ANTH 0014. Global Problems
Units: 3
Hours: 54 lecture
An anthropological approach to the study of major global problems and current world situations. Examine the multidimensional impacts of global capitalism and assess participation within it. Course utilizes a critical approach and emphasizes knowledge from indigenous and other social movements which resist and advocate for alternatives. Highlights discussions about practical strategies for personal and collective positive global impacts. (CSU, UC)

ANTH 0027. Anthropology of Sex, Gender and Sexuality
Units: 3
Hours: 54 lecture
Introduction to the study of sex, gender and sexuality from multiple anthropological perspectives, including biological, cultural, linguistic and archaeological. Examine the diversity and complexities of human sexes, genders and sexualities in many different sociocultural, historical, and cross-species contexts. Investigate complex interactions of biological and cultural systems in the development and dynamics of sexes, genders and sexualities. Discuss relevant issues and current research pertaining to sex, gender and sexuality. (CSU, UC)

ANTH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Applied Art and Design (AAD)

AAD 0012. Visual Communication
Units: 3
Also known as COMM 12
Hours: 54 lecture
Study of visual communication including design principles, aesthetics, visual perception, non-verbal messages, relationship to verbal communication, audience analysis, mass media and persuasion. Historical overview of visual media as well as current trends and technology. (C-ID JOUR 170) (CSU, UC)

AAD 0013. History of Graphic Design
Units: 3
Hours: 54 lecture
History of graphic design and visual communication, including the sociopolitical and cultural contexts, as well as the artistic and technological characteristics of various movements. It includes modern graphic design movements of the 20th century through the expansive media innovations of current day. (CSU, UC)

AAD 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

AAD 0044. Sketching for Design
Units: 3
Hours: 72 (36 lecture, 36 activity)
Introduction to concept sketching techniques for design, illustration, photography and multimedia utilizing a variety of drawing media and creative problem solving concepts. Emphasis on developing visual communication skills for advertising, graphics, illustration, product design, and storyboarding for time-based media. (CSU)

AAD 0052. Publication Design I
Units: 3
Advisory: Completion of AAD 60 or AAD 70 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introductory course in use of computer for page layout and composition. Emphasis on the use of type, image, and layout as key elements in graphic communication. Covers importing text and graphics, layout principles, and producing print-ready artwork for reproduction. (CSU)

AAD 0053. Publication Design II
Units: 3
Prerequisite: Completion of AAD 52 with grade of "C" or better
Advisory: Completion of AAD 70 and AAD 54 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Page layout for developing and producing high-quality multi-page documents. Emphasis on publication design, production, typography, graphics, and pre-press. Includes research and application of effective magazine layout concepts, cover design, grid theory, graphics, text elements and printing standards and processes. (CSU)

AAD 0054. Typography
Units: 3
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
A professional and historical approach to understanding typographic principles and form, effects of type on the style and communication in print and screen. Includes study of historical and contemporary graphics and typographic design, conceptualizing, developing and refining typographical forms, methods for analyzing typographic usage, and proper application of type in a variety of print publications, screen environments, and computer generated typed forms. (CSU)

AAD 0055. Illustration
Units: 3
Also known as ART 55
Prerequisite: Completion of AAD 44, 60, 62, 75 or ART 4A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Professional practices of illustration, including concept development, communication of ideas, identification and use of appropriate styles and techniques, time management, pricing and contracts, and presentation of finished artwork. (CSU)

AAD 0060. Graphic Design I: Principles and Process
Units: 3
Advisory: Completion of AAD 44 and/or AAD 70 with grade(s) of "C" or better
Hours: 72 (36 lecture, 36 activity)
This course offers an introduction to graphic design and related fields in the creative industry. Topics include the principles and elements of design, methods for generating effective solutions to design problems using the design process, exploration of a wide variety of materials and techniques used in the industry, as well as the development of impactful presentations that showcase the research, testing, reflection, and refinement processes key to this field of study. (CSU)

AAD 0061. Graphic Design III: Branding and Production
Units: 3
Prerequisite: Completion of AAD 70 with grade of "C" or better, or completion of AAD 52, AAD 62, and AAD 75 with grade of "C" or better
Advisory: Completion of AAD 60 and AAD 54 with grade of "C" or better
Hours: 90 (27 lecture, 63 activity)
Advanced problem solving skills in graphic design across multiple, conceptually-linked assignments. Use of the computer to design effective graphic solutions and materials for print and screen. Research and and analysis of target audiences. Industry standards and procedures for working with art directors and printing service bureaus. (CSU)

AAD 0062. Digital Illustration
Units: 3
Advisory: Completion of AAD 70, AAD 44, or AAD 60 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Computer illustration for effective graphic communication. Emphasis on software tools and techniques in creation of graphic illustrations for use in a wide range of media including print, multimedia, and web. Application of design principles, the use of type and layout in combination with illustrations through class projects. Covers importing text and graphics, developing and executing design concepts, and producing print-ready artwork for reproduction using appropriate file formats and standards for integration into other electronic media. (CSU, UC)

AAD 0070. Graphic Design II: Introduction to Digital Design
Units: 3
Hours: 72 (36 lecture, 36 activity)
Introduction to fundamental concepts, techniques, and creation of art and design on the computer. Includes basic computer skills, photo manipulation, digital illustration, page layout, and preparation of images for print and screen environments. Students develop creative projects using current graphics software. (C-ID ARTS 250) (CSU, UC)

AAD 0071. Introduction to Digital Painting
Units: 3
Also known as ART 71
Prerequisite: Completion of AAD 44 or ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, tools, and techniques of painting and drawing using creative software. Exploration of traditional artistic techniques in a digital environment. Includes development of skills such as form, color, space, and composition. Development of projects in for both print and screen. (CSU)

AAD 0073. Digital Art Studio: Concepts and Practices
Units: 3
Also known as ART 73
Advisory: Completion of AAD 70, or AAD 75, or AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the tools, concepts, and processes for digital art creation with an emphasis on experimental animation, multimedia, digital art, and new genres. Topics include the integration of traditional design, color, and compositional principles with contemporary digital tools in an art studio context. (CSU, UC)

AAD 0075. Introduction to Photoshop
Units: 3
Also known as PHOT 75
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Introduction to the acquisition and computer enhancements of digital images for design and photography. Analysis and critique of images from initial concept to final project creation. Basic scanning, image adjustments, retouching, compositing, and file preparation for printing and other uses. (CSU, UC)

AAD 0076. Advanced Projects in Photoshop
Units: 3
Also known as PHOT 76
Prerequisite: Completion of PHOT 75 or AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Advanced digital project development using Photoshop. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Integration of other software programs. Evaluations and critiques of completed projects. (CSU)

AAD 0079. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as COMM 31A and PHOT 79
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

AAD 0082. Intermediate Digital Filmmaking
Units: 3
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the pre-production, production and post-production process of filmmaking at an intermediate level. Students produce advanced digital films that incorporate industry standard pre-production preparation such as script writing, storyboarding, and development of a production book. The production process incorporates sound recording, mixed soundtracks, camera work with an emphasis on visual metaphors, and detailed lighting schemes. Post-production focuses on advanced picture and sound editing techniques along with formatting for distribution. (CSU)

AAD 0083. Introduction to Three-Dimensional Modeling
Units: 3
Advisory: Completion of AAD 70 and ART 4A with grades of "C" or better
Hours: 108 (27 lecture, 81 laboratory)
This 3D-Modeling course focuses on the concepts of three dimensional computer graphics including how they are used in a variety of industries for both digital media and the physical world. Development of a visual vocabulary for creative expression through lecture presentations. By using industry standard tools and applications, students will complete projects involving modeling, animations, texturing, and lighting. (CSU)

AAD 0085. Introduction to Web Design
Units: 3
Advisory: Completion of AAD 70 or 75 with grade of "C" or better
Hours: 90 (36 lecture, 36 laboratory, 18 activity)
An introduction to web design, covering topics and strategies necessary for the creation and design of websites. Topics include semantic markup using HyperText Markup Language (HTML); design through the use of Cascading Style Sheets (CSS); human-centered design problems specific to web delivery; the creation and optimization of graphics and images for the web; accessibility; search engine optimization, and current industry standards. (CSU)

AAD 0086. Intermediate Web Design
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Intermediate course in front-end web design and development. Current topics will be covered as they relate to user interface design, user experience design, usability principles, and accessibility expectations. Intermediate strategies addressing visual design and brand identity through the combination of layout design, visual assets such as images and graphics, copy and content, typography, and more. Special topics include coverage of industry standards and emerging technologies. (CSU)

AAD 0087. Content Management Systems for Designers
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Advisory: Completion of AAD 86 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Intermediate-level course in front-end Web development and design with a focus on development within a CMS environment (Content Management System). Students learn how to install a CMS; work on a local server and hosted server for development; enhance the site functionality with plugins, widgets, and themes; customize the appearance of the site to meet brand identity requirements; manage visitor interactions; and manage updates and security issues. (CSU)

AAD 0088. History of Filmmaking
Units: 3
Hours: 54 lecture
Entry level film history course covering the birth of cinema to present-day. Also covers cinema's relationship to new media and digital technology. Students will acquire general knowledge of film language that is the product of its historical and cultural contexts. Historical study begins in Europe and the United States where cinema was first developed and moves across various regions around the world as it relates to cinematic history. (CSU, UC)

AAD 0089. Documentary Filmmaking
Units: 3
Also known as PHOT 89
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the principles, techniques and terminology that are specific to documentary filmmaking. Students produce documentary films that incorporate industry standard pre-production preparation such as creating contracts, research, location surveys, and script writing. Major topics include camera operation, capturing b-roll, location sound recording, mixing, editing and formatting for distribution. (CSU, UC)

AAD 0090. Interaction Design for Web Products
Units: 3
Prerequisite: Completion of AAD 85 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Interaction Design for the Web with a focus on User Experience (UX) and User Interface (UI) design. This course covers the use of CSS, HTML, and JavaScript for creating interactive elements and engaging digital products. The use of scripts, animation, and multimedia tools and processes will be covered, as will the use of forms and input elements. Stylistic concerns, content development for a targeted audience, and the digital product design process will be examined. Students create original products focusing on integrating interactivity and animation while applying usability principles. (CSU)

AAD 0093. Introduction to Motion Graphics
Units: 3
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to fundamental concepts, practices, and theories of digital, time based, production. Application of graphic design principles to filmmaking and video production using various forms of animation and visual effects. Exploration of traditional and experimental approaches to creating dynamic visual content for use in video, design and animation. Topics include the integration of text, video, graphics, and sound into short animation pieces as well as components for larger productions. Aesthetic, conceptual and technological considerations discussed and applied. (CSU, UC)

AAD 0094. Digital Animation
Units: 3
Prerequisite: Completion of AAD 70, AAD 44, or ART 4A with grade of "C" or better
Advisory: Completion of AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Digital Animation focuses on animation principles, structure, concept design, project planning, storytelling, as well as industry standard animation tools and techniques. Explores mass media output for animation and their appropriate animation styles and development. (CSU)

AAD 0095. Internship in Applied Art and Design
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AAD 0096. Portfolio Design
Units: 3
Formerly known as AAD 20
Hours: 72 (36 lecture, 36 activity)
Intended for students nearing program completion and who have determined they will pursue a future as a creative professional. The course covers the development of a professional digital portfolio for emerging creative professionals. Topics include work selection and sequencing, design, and formatting, the integration of written content, as well as portfolio output and distribution. Students will also create professional documents including a résumé, biography, and statement. Professional communication practices and industry expectations will also be covered. (CSU)

AAD 0097. Business Practices for Creative Professionals
Units: 3
Formerly known as AAD 66
Hours: 54 lecture
Intended for students nearing program completion and who have determined they will pursue a future as a creative professional. The course covers business skills and best practices for emerging creative professionals, including legal requirements for operating a business, drafting contracts, pricing and billing, copyright protections and completing "work for hire," licensing structures, and methods for building and maintaining professional relationships with clients, industry colleagues, and related business services. (CSU)

Art (ART)

ART 0002. Two-Dimensional Design Foundations
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, applications, and historical and contemporary references related to two-dimensional art and composition, including the study of the basic principles and elements of line, shape, texture, value, color, proportion, and spatial illusion. Students develop a visual vocabulary for creative expression through lecture presentations, studio projects, problem-solving, and written assignments. (C-ID ARTS 100) (CSU, UC)

ART 0003. Three-Dimensional Design Foundations
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, applications, and historical references related to three-dimensional design and spatial composition, including the study of the elements of art and principles of design as they apply to three-dimensional space and form. Development of visual vocabulary for creative expression through lecture presentations and use of appropriate materials for non-representational three-dimensional studio projects. (C-ID ARTS 101) (CSU, UC)

ART 0004A. Drawing I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to quick and long forms of drawing; different types of line drawing including gesture and contour; rendering of volumetric form showing light and shadow; description of forms in space along with perspective drawing; and basic principles of compositional arrangement or placement of elements on the page. Instruction in the use of black and white drawing media including pencil, charcoal, and ink. References to various historical and cultural styles, including non-eurocentric examples and techniques. (C-ID ARTS 110) (CSU, UC)

ART 0004B. Drawing II
Units: 3
Prerequisite: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Continued exploration of the various concerns of drawing, including gesture and contour drawing, rendering of volumetric form showing light and shadow, description of forms in space, and basic principles of compositional arrangement using color drawing media including pencils, pastels, and inks. Drawing studied with reference to various historical, contemporary, and cultural styles and techniques. Creative studies in scale, non-traditional materials, and different surfaces also explored. (C-ID ARTS 205) (CSU, UC)

ART 0005A. Figure Drawing I
Units: 3
Prerequisite: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to drawing the human figure from direct observation using live models and a variety of black and white drawing media and techniques. Topics include an introduction to human anatomy and the historical and contemporary roles of figure drawing. Students practice objective, descriptive approaches to drawing the figure. (C-ID ARTS 200) (CSU, UC)

ART 0005B. Figure Drawing II
Units: 3
Prerequisite: Completion of ART 5A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced drawing of the human figure from direct observation of live models. Continued explorations of the human form in space, anatomical construction, proportions, and composition with emphasis on the use of color. Study of figurative art in historical and global cultural contexts. Students practice subjective, expressive interpretations of the human figure, building on fundamental drawing skills to develop personalized approaches to drawing the human form through exercises covering various historical and contemporary approaches to drawing. (CSU, UC)

ART 0006C. Color Theory
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Basic principles and properties of color. Theoretical study and direct studio projects of historical and contemporary colorists. Study of the physics of light and color; physiology of color vision; psychological and compositional effects of color use; cultural interpretations and traditions; history of color theory and its impact on art and design. (C-ID ARTS 270) (CSU, UC)

ART 0007A. Oil Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An introduction to the techniques and concepts of oil painting. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, introduction to color theory, and sources of inspiration are explored through in-class and independent painting assignments. (CSU, UC)

ART 0007B. Oil Painting II
Units: 3
Prerequisite: Completion of ART 7A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of oil painting techniques and concepts. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, color theory, and sources of inspiration are explored through in-class and independent painting assignments, with emphasis on development of personal expression and style. (CSU, UC)

ART 0008A. Watercolor Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to watercolor as a transparent painting medium through exploration of traditional watercolor methods and techniques. Topics include composition, color use, development of sources of personal inspiration, and the study of watercolor in historical and contemporary art periods. (C-ID ARTS 210) (CSU, UC)

ART 0008B. Watercolor Painting II
Units: 3
Prerequisite: Completion of ART 8A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced, in-depth study of the techniques and processes of painting in transparent watercolor. Continued exploration of design and composition with emphasis on the subjective and expressive use of color, including abstract and non-objective approaches. Students practice subjective uses of watercolor to develop personal style. Watercolor painting studied in relation to global and cultural contexts. (CSU, UC)

ART 0009A. Acrylic Painting I
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An introduction to the techniques and concepts of acrylic painting. Painting techniques explored in historical, cultural, and contemporary contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, introduction to color theory, and sources of inspiration explored through in-class and independent painting assignments. (C-ID ARTS 210) (CSU, UC)

ART 0009B. Acrylic Painting II
Units: 3
Prerequisite: Completion of ART 9A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of acrylic painting techniques and concepts. Painting techniques explored in historical/cultural contexts, with emphasis on perceptual skills and creative responses to materials and subjects. Compositional strategy, color theory, and sources of inspiration are explored through in-class and independent painting assignments, with emphasis on development of personal expression and style. (CSU, UC)

ART 0012A. Sculpture I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduces the fundamental issues of sculpture through a variety of materials, processes and techniques. Skills acquired in a wide range of techniques and materials, both traditional (wood, metal, plaster) as well as non-traditional (fabric, video projections, performance, sustainable/salvaged/recycled materials). Emphasis on conceptual idea development, connecting metaphorical ideas and symbolic meaning to the crafting/making of sculptural objects. (CSU, UC)

ART 0012B. Sculpture II
Units: 3
Prerequisite: Completion of ART 12A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
In-depth exploration of sculpture philosophy and materials with a focused emphasis toward development of personal direction and individual style. Students work with a variety of materials to create works of art. (CSU, UC)

ART 0017. Ceramic Sculpture/Handbuilding
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Exploration of various ceramic hand-forming methods with clay as a medium; cultural, traditional, and contemporary ceramics techniques explored through the development of three-dimensional projects. Emphasis on handbuilding and hand forming techniques. (CSU, UC)

ART 0018A. Ceramics I
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the ideas, techniques, history and tradition of the art and craft of ceramics. Designed for students interested in working with clay, the course provides experiences in making functional as well as sculptural pieces using a variety of techniques. Emphasizes well-thought-out forms, designs and functional uses along with good craftsmanship. Ceramics explored through handbuilding projects, wheel throwing, decorating and glazing of ceramic works. A rigorous exploration of clay as a craft and art form. (CSU, UC)

ART 0018B. Ceramics II
Units: 3
Prerequisite: Completion of ART 18A with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Students integrate techniques and concepts learned in introductory ceramics to produce works of a more prioritized and personal nature. Introduces advanced techniques and concepts of using clay for creative expression to produce a fundamentally more self-directed portfolio using the potter's wheel and or hand building techniques. Provides increased sensitivity to the materials, to aesthetic design, and to further development of individual and imaginative use of the materials. Glaze technology is introduced. (CSU, UC)

ART 0019. Figure Sculpture
Units: 3
Advisory: Completion of ART 12A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to figure sculpture using the live model. Emphasis on understanding the human figure as it relates culturally to contemporary and traditional sculptural concepts. Introduction to a variety of construction materials beginning with clay, plaster and mixed media. (CSU, UC)

ART 0020. Raku Ceramics
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to Raku, a traditional ceramics process. Explores origins and cultural developments and their application to the contemporary world. Includes fabrication techniques, glaze chemistry, firing techniques, and design theory. (CSU, UC)

ART 0022. Metal Arts
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Exploration of metalworking techniques, design principles, and material use for sculpture, functional and nonfunctional art forms. Common welding processes, forming, bending, and blacksmithing techniques for ferrous and nonferrous metals. (CSU)

ART 0024. Advanced Metal Arts
Units: 3
Prerequisite: Completion of ART 22 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced exploration of metal techniques, design principles, and material use for sculpture and functional and nonfunctional art forms. Emphasis on development of a personal creative vision, furthering technical skills, and complex problem solving. Includes ferrous and nonferrous metal machining, advanced welding techniques, advanced forming methods, and public outdoor art installation. (CSU)

ART 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ART 0032A. Fiber Arts I
Units: 3
Formerly known as ART 32
Hours: 90 (36 lecture, 54 laboratory)
Introduction to basic materials, methods and vocabulary used in fiber and textile media as well as the hands-on development of expressive visual ideas. Develop familiarization with materials and basic understanding of several off-loom construction techniques. Emphasis on techniques requiring little specialized equipment with materials that are found readily in the environment. Contemporary and historical development and cultural relevance of the fiber media is also explored. (C-ID ARTS 282) (CSU, UC)

ART 0033. Art Metal Casting
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Foundations of art casting techniques and skills with an emphasis on the elements of art and principles of design. Introduction to mold making, wax working, traditional and nontraditional metal casting methods, chasing finishing for bronze and aluminum. (CSU)

ART 0034. Collage and Assemblage
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Explores the variation and formation of an altered surface with found and constructed materials. The application of historical and contemporary techniques and concepts provides the foundation for creating two and three dimensional works of art. Development of a personal visual language is essential to this course. (CSU)

ART 0040A. Printmaking I
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to printmaking processes. Direct practice in woodcut, linocut, and collagraph; planographic processes, such as monotype and monoprint; drypoint, a form of intaglio printing using a non-toxic etching process; stencil techniques; chine collé; color printing; registration; and traditional and contemporary printmaking practices. Students practice skills required to work in a shared studio environment using an etching press, and practice hand-pressing using various implements. Most inks used are soy-based and non-toxic. (C-ID ARTS 220) (CSU, UC)

ART 0040B. Printmaking II
Units: 3
Prerequisite: Completion of ART 40A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Further in-depth study of printmaking processes. Direct practice in relief, intaglio, collagraph, monotype, and digital prints and transfers. Exploration of traditional and contemporary printmaking practices. Techniques of creating and labeling print editions. Students practice skills required to work in a shared studio environment using an etching press, and practice hand-pressing using various implements. Most inks used are soy-based and non-toxic. (CSU, UC)

ART 0041. Introduction to Jewelry and Metalsmithing
Units: 3
Hours: 90 (36 lecture, 54 laboratory)
Introduction to a wide range of methods, techniques, and materials used to create jewelry and small-scale metal artwork and objects. Includes examination of the history and contemporary practices of jewelry-making and small metal casting/fabrication with a global cultural perspective. (CSU)

ART 0052. Portrait Drawing and Painting
Units: 3
Advisory: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to drawing and painting the human portrait from live models. Basic proportions, facial features, basic rendering and painting techniques, and portrayal of individual portrait characteristics with a variety of drawing and painting media. Historical study of the art form of portraiture integrated into studio projects. (CSU, UC)

ART 0055. Illustration
Units: 3
Also known as AAD 55
Prerequisite: Completion of AAD 44, 60, 62, 75 or ART 4A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Professional practices of illustration, including concept development, communication of ideas, identification and use of appropriate styles and techniques, time management, pricing and contracts, and presentation of finished artwork. (CSU)

ART 0071. Introduction to Digital Painting
Units: 3
Also known as AAD 71
Prerequisite: Completion of AAD 44 or ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts, tools, and techniques of painting and drawing using creative software. Exploration of traditional artistic techniques in a digital environment. Includes development of skills such as form, color, space, and composition. Development of projects in for both print and screen. (CSU)

ART 0073. Digital Art Studio: Concepts and Practices
Units: 3
Also known as AAD 73
Advisory: Completion of AAD 70, or AAD 75, or AAD 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the tools, concepts, and processes for digital art creation with an emphasis on experimental animation, multimedia, digital art, and new genres. Topics include the integration of traditional design, color, and compositional principles with contemporary digital tools in an art studio context. (CSU, UC)

ART 0095. Internship in Art
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Art History (ARHI)

ARHI 0101. Art Appreciation
Units: 3
Formerly known as ART 10
Hours: 54 lecture
Introductory course for non-art majors offering a look at works of art through the study of theory, terminology, themes, design principles, media, techniques, with an introduction to the visual arts across time and diverse cultures. (C-ID ARTH 100) (CSU, UC)

ARHI 0110. Survey of Western Art I: Prehistory through the Middle Ages
Units: 3
Formerly known as ART 1A
Hours: 54 lecture
Survey of developments in European and Near Eastern art and visual culture from Paleolithic times through the Middle Ages, including Mesopotamia, Egypt, Greece, Rome, and early Christian and Islamic cultures. Significant monuments and artworks of each major culture discussed, analyzed, and placed within historical context. Special attention paid to architectural monuments as both political and religious structures, the development of figural sculpture, and the evolving debate over the rightful ownership of ancient objects. (C-ID ARTH 110) (CSU, UC)

ARHI 0120. Survey of Western Art II: Renaissance Traditions
Units: 3
Formerly known as ART 1B
Hours: 54 lecture
Survey of developments in western art and visual culture from 1400-1850. Significant artists and monuments of each major period and region discussed, analyzed, and placed within historical context. Special attention given to the evolving status of the artist, the development of major European art institutions, and the functions of art and architecture within society. (combined with ARHI 130, C-ID ARTH 120) (CSU, UC)

ARHI 0130. Survey of Western Art III: Modern through Contemporary
Units: 3
Formerly known as ART 1C
Hours: 54 lecture
Study of the historical development of art and architecture in Europe and the United States from mid-nineteenth century to contemporary practices. Significant artists and structures of each major region and period discussed and analyzed within their historical contexts with special attention given to the changing status of the artist, the development of major Western art institutions and the functions of art and architecture in society. (combined with ARHI 120, C-ID ARTH 120) (CSU, UC)

ARHI 0132. History of Women in Art
Units: 3
Formerly known as ART 1E
Hours: 54 lecture
Surveys women in the arts of western civilization both as art subjects and artists. Includes introduction of critical approaches to gender, class, race, sexuality, and identity as they influence art production and representation in various cultures and time periods. (CSU, UC)

ARHI 0134. History of Photography
Units: 3
Formerly known as ART 11
Also known as PHOT 10
Hours: 54 lecture
Historical survey of photography as an art form and communication tool from its invention to the present. Explores various perspectives including photography as an art form and a technology, influential themes, periods, and photographers. Investigates technical considerations, photography's role in mass culture, and other societal influences. (CSU, UC)

ARHI 0140. History of the Arts of Africa, the Americas, and Oceania
Units: 3
Formerly known as ART 1G
Hours: 54 lecture
Study of various art forms of the cultures of Africa, the Americas, and Oceania from prehistoric times to the present. (C-ID ARTH 140) (CSU, UC)

ARHI 0142. History of Latinx and Chicanx Art
Units: 3
Hours: 54 lecture
Survey of 20th and 21st century Latinx and Chicanx art in context, covering historical origins, influences, and innovations as well as intersections with social justice, gender, sexuality, and race. (CSU, UC)

ARHI 0150. History of Asian Art
Units: 3
Formerly known as ART 1D
Hours: 54 lecture
Study of the painting, sculpture, architecture and other art forms of India, China, Japan, Korea, and Southeast Asia from prehistoric times to present. (C-ID ARTH 130) (CSU, UC)

ARHI 0155. History of Islamic Art
Units: 3
Formerly known as ART 1F
Hours: 54 lecture
Survey of the art and architecture produced by the wide and varied cultures that can be considered Islamic. Fourteen hundred years of visual culture from Spain to North Africa to the Middle East to South and South East are covered. In addition, special attention paid to the Islamic diaspora and the role of Islamic artists in the contemporary world today. (CSU, UC)

Astronomy (ASTR)

ASTR 0002. Introduction to Planetary Systems
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and fundamental facts of astronomy associated with planetary systems. Includes historical developments of planetary astronomy, basic principles of planetary system observations and analysis, and general concepts for interpreting the night sky with charts and almanacs. Particular detail given to the formation, evolution, and current condition of the Sun and Solar System, as well as current knowledge of other planetary systems. (CSU, UC)

ASTR 0005. Introduction to Stars, Galaxies, and the Universe
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and fundamental facts of astronomy emphasizing stars, galaxies, and the universe. Includes historical developments of astronomy, basic principles of astronomical observations and analysis, and general concepts for interpreting the night sky with charts. Particular detail given to structure and evolution of stars, general characteristics of deep sky objects (star clusters, nebulae, and galaxies), large-scale structure of the Universe, and cosmology. (CSU, UC)

ASTR 0007. Life in the Universe
Units: 3
Formerly known as INT 11
Hours: 54 lecture
Study of the emerging discipline of astrobiology. Designed for science and non-science majors. Relevant principles of biology, astronomy, and earth science used in searching for life in the universe. Includes cultural and philosophical implications of life existing elsewhere in the universe. (CSU, UC)

ASTR 0010. Elementary Astronomy
Units: 3
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
General principles and the fundamental facts of astronomy. Includes historical developments of astronomy, the formation, evolution and current condition of sun and solar system, stellar structure and evolution, deep sky objects (star clusters, nebulae, galaxies), structure of universe, and cosmology. Not open to students who have successfully completed both ASTR 2 and ASTR 5. (CSU, UC)

ASTR 0011. Observational Astronomy
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ASTR 2, 5, or 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 laboratory
Basic interpretation of astronomical observations through telescopes, binoculars, computers, cameras, and other simple measuring equipment. Use of planetarium to facilitate recognition of constellations, stars, planetary motions, and study coordinate systems and celestial motions. Development of observational skills to study outdoor sky and outcomes of indoor laboratory experiments. Emphasis on quantitative and qualitative analysis of variety of astronomical data. (CSU, UC)

ASTR 0014. Astrophotography and Imaging
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ASTR 2, 5, or 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 laboratory
Basic principles and practices of astrophotography and image processing. Astronomical observations and data collection associated with the use of telescopes, binoculars, computers, cameras, and other related equipment. Development of observational techniques and data analysis procedures for the study of the outdoor sky with related indoor experiments and studies. Particular emphasis placed on quantitative and qualitative analysis of a variety of astronomical data collected with cameras. NOTE: About 5 nights of activities will be required. (CSU, UC)

ASTR 0025. Frontiers in Astronomy
Units: 3
Prerequisite: Completion of ASTR 5 or 10 with grade of "C" or better
Hours: 54 lecture
Topics at the forefront of astronomical research including an in-depth look beyond introductory astronomy. Emphasis on theoretical principles and supporting observational data. Includes relativity and warped spacetime, black holes, dark matter, quasars, gravitational waves, grand unified and super symmetry theories, and other recent developments in cosmology. (CSU, UC)

ASTR 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Athletics (ATHL)

ATHL 0100. Baseball Training
Units: 0.5-3
Formerly known as PHED 102
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced baseball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses baseball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate baseball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0101. Basketball Training
Units: 0.5-3
Formerly known as PHED 106
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses basketball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate basketball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0102. Cross Country Training
Units: 0.5-3
Formerly known as PHED 115
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced cross country skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses knowledge of running and training skills, strategy, and appreciation for developing improved fitness awareness through distance training. Intended for students with varsity high school experience who are preparing for competitive intercollegiate cross country. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0105. Springboard Diving Training
Units: 0.5-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced diving skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses diving training, skills, knowledge, strategy, and appreciation. Intended for students with high school and/or recreational experience who are preparing for competitive intercollegiate diving. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0106. Football Training
Units: 0.5-3
Formerly known as PHED 101
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced football skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses football training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate football. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0107. Golf Training
Units: 0.5-3
Formerly known as PHED 103
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golfing skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses golf training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate golf. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0109. Soccer Training
Units: 0.5-3
Formerly known as PHED 116
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced soccer skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses soccer training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate soccer. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0110. Softball Training
Units: 0.5-3
Formerly known as PHED 111
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced softball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses softball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate softball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0111. Swimming Training
Units: 0.5-3
Formerly known as PHED 107
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses swimming training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate swimming. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0112. Tennis Training
Units: 0.5-3
Formerly known as PHED 104
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced tennis skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses tennis training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate tennis. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0113. Track and Field Training
Units: 0.5-3
Formerly known as PHED 105
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced track or field event skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses physical training, skills, knowledge, and appreciation of track and field events. Intended for students with varsity high school experience who are preparing for competitive intercollegiate track and field. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0115. Beach Volleyball Training
Units: 0.5-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses beach volleyball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate beach volleyball. May be taken four times for credit. (CSU)

ATHL 0116. Volleyball Training
Units: 0.5-3
Formerly known as PHED 110
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses volleyball training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate volleyball. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0117. Water Polo Training
Units: 0.5-3
Formerly known as PHED 108
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses water polo training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate water polo. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0118. Wrestling Training
Units: 0.5-3
Formerly known as PHED 112
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Stresses wrestling training, skills, knowledge, strategy, and appreciation. Intended for students with varsity high school experience who are preparing for competitive intercollegiate wrestling. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0150. Intercollegiate Baseball (M)
Units: 1-3
Formerly known as PHED 161
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced baseball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate baseball competition conducted through NCAA and California Community College Athletic Association (CCCAA) rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0151. Intercollegiate Basketball (M)
Units: 1-3
Formerly known as PHED 143
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's basketball competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0152. Intercollegiate Basketball (W)
Units: 1-3
Formerly known as PHED 123
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced basketball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's basketball competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0153. Intercollegiate Football (M)
Units: 1-3
Formerly known as PHED 142
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced football skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate football competition conducted through NCFA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0154. Intercollegiate Golf (M)
Units: 1-3
Formerly known as PHED 162
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golf skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's golf competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0155. Intercollegiate Golf (W)
Units: 1-3
Formerly known as PHED 127
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced golf skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's golf competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0156. Intercollegiate Soccer (W)
Units: 1-3
Formerly known as PHED 124
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced soccer skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's soccer competition conducted through FIFA laws of the game and CCCAA rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0157. Intercollegiate Softball (W)
Units: 1-3
Formerly known as PHED 131
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced softball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's softball competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0158. Intercollegiate Swimming (M)
Units: 1-3
Formerly known as PHED 165
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's swimming and diving competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0159. Intercollegiate Swimming (W)
Units: 1-3
Formerly known as PHED 134
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced swimming skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's swimming and diving competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0161. Intercollegiate Tennis (W)
Units: 1-3
Formerly known as PHED 132
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced tennis skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's tennis competition conducted through NCAA and California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0162. Intercollegiate Volleyball (W)
Units: 1-3
Formerly known as PHED 122
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's volleyball competition conducted through the California Commission on Athletics rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0163. Intercollegiate Water Polo (M)
Units: 1-3
Formerly known as PHED 146
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate men's water polo competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0164. Intercollegiate Water Polo (W)
Units: 1-3
Formerly known as PHED 137
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced water polo skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's water polo competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0165. Intercollegiate Wrestling (M)
Units: 1-3
Formerly known as PHED 145
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate wrestling competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0166. Intercollegiate Beach Volleyball (W)
Units: 1-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced beach volleyball skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's beach volleyball competition conducted through NCAA and California Community College Athletic Association Rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0167. Intercollegiate Cross Country (W)
Units: 1-3
Formerly known as PHED 126
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced cross country skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's cross country competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0169. Intercollegiate Track and Field (W)
Units: 1-3
Formerly known as PHED 133
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced track and field skills, conditioning and previous competitive experience
Hours:58 laboratroy per unit
Intercollegiate women's track and field competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0170. Intercollegiate Wrestling (W)
Units: 1-3
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced wrestling skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Intercollegiate women's wrestling competition conducted through NCAA and California Community College Athletic Association rules. May be taken four times for credit. (CSU, UC-with unit limitation)

ATHL 0199. Intercollegiate Sports Conditioning
Units: 0.5-2.5
Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced sport specific skills, conditioning and previous competitive experience
Hours: 58 laboratory per unit
Instruction in sport-specific strength and conditioning protocols related to improving muscular strength, power, agility, and speed. Principles of sport-specific technical and tactical methodology presented. May be taken four times for credit. (CSU, UC-with unit limitation)

Automotive Technology (AUTO)

AUTO 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

AUTO 0095. Internship in Automotive Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

AUTO 0100. Basic Automotive Services and Repair
Units: 4
Hours: 108 (54 lecture, 54 laboratory)
Presents introductory automotive technical skills used by entry-level service technicians. Course content includes vehicle operation, tool usage, practical measuring skills, fasteners, electrical meter usage, common automotive services and problem solving techniques. Class projects are performed in an automotive shop environment to provide a hands-on experience with common industry tools and equipment. Emphasis is placed on basic shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help the student prepare for the ASE G1 service exam. (not transferable)

AUTO 0140. Automotive Skill Development
Units: 3
Prerequisite: Completion of AUTO 100 with grade of "C" or better
Hours: 110 (26 lecture, 84 laboratory)
Covers basic automotive component diagnosis, service and repair for major vehicle systems including: brakes, suspension, heating, air conditioning, electrical, engines and transmissions. Shop activities are designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations. Emphasis is placed on shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help students prepare for the ASE G1 service exam. (not transferable)

AUTO 0800. Basic Automotive Services and Repair
Units: 0
Hours: 108 (54 lecture, 54 laboratory)
Presents introductory automotive technical skills used by entry-level service technicians. Course content includes vehicle operation, tool usage, practical measuring skills, fasteners, electrical meter usage, common automotive services and problem solving techniques. Class projects are performed in an automotive shop environment to provide a hands-on experience with common industry tools and equipment. Emphasis is placed on basic shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help the student prepare for the ASE G1 service exam. (pass/no pass grading) (noncredit)

AUTO 0840. Automotive Skill Development
Units: 0
Prerequisite: Completion of AUTO 100 with grade of "C" or better or AUTO 800 with grade of "Pass"
Hours: 110 (26 lecture, 84 laboratory)
Covers basic automotive component diagnosis, service and repair for major vehicle systems including: brakes, suspension, heating, air conditioning, electrical, engines and transmissions. Shop activities are designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations. Emphasis is placed on shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards. This course will help students prepare for the ASE G1 service exam. (pass/no pass grading) (noncredit)

Biological Sciences (BIOL)

BIOL 0001. General Biology
Units: 4
Prerequisite: Completion of CHEM 1A, CHEM 3A/3B, or higher level chemistry course with grade of "C" or better; AND completion of intermediate algebra or higher with grade of "C" or better or appropriate placement; AND eligibility for ENGL 11
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Part of the BIOL 1/BIOL 140 and BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of general biological concepts including the scientific method, biomolecules, cell structure and function with emphasis on cellular and molecular biology, genetics, and evolution. Lab focuses on key concepts of cell and molecular biology. Non-life science majors see BIOL 10 or BIOL 11. (C-ID BIOL 190) (CSU, UC)

BIOL 0002. Botany
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of botany, including diversity, classification, life cycles, and evolutionary trends of plants, fungi, algae, and cyanobacteria. Emphasis is on the anatomy, morphology, physiology, development, evolution, and ecology of plants. Field trips may be required; transportation will be provided. Recommended for biology majors and students in environmental science, plant biology or related programs. Non-life science majors see BIOL 14, BIOL 21, or BIOL 24. Not recommended for students taking BIOL 140. (C-ID BIOL 155) (CSU, UC)

BIOL 0003. General Zoology
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 2/BIOL 3 course series for life science majors. Introduction to the principles of zoology through a detailed survey of the diversity of the animal kingdom, with an emphasis on the evolution and functional anatomy of the major groups. Field trips may be required; transportation will be provided. Recommended for biology majors and students in environmental science, pre-veterinary or related programs. Non-life science majors see BIOL 33. Not recommended for students taking BIOL 140. (C-ID BIOL 150) (CSU, UC-with unit limitation)

BIOL 0004. Microbiology
Units: 5
Prerequisite: Completion of high school chemistry, CHEM A, or higher level chemistry course with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Introduction to the biochemistry, morphology, physiology, genetics, and classification of microorganisms. Emphasis on the significance of microorganisms to human health and global ecology. Laboratory topics include traditional and modern techniques of microbial classification, recombinant DNA technology, and bacteriophage biology. Students enrolling in BIOL 4 after having taken BIOL 8A will lose credit for BIOL 8A. Not open to students that have successfully completed BIOL 8B. (CSU, UC-with unit limitation)

BIOL 0005. Human Anatomy
Units: 5
Prerequisite: Eligibility for ENGL 11
Advisory: Completion of BIOL 55, 56, HSCI 3, or previous science course with grade of "C" or better, or experience in health care field; completion of MATH D with grade of "C" or better; eligibility for ENGL C1000
Hours: 162 (54 lecture, 108 laboratory)
Structural organization, relationships among structures, and histology of the human body: gross and microscopic structure of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, from cellular to organ system levels of organization. This is a rigorous course in human anatomy primarily intended for nursing, allied health, kinesiology, and other health related majors. Cadaver prosections used for instruction. Nonmajors see BIOL 55, 56, and 56L. Students enrolling in BIOL 5 after having taken BIOL 7A will lose credit for BIOL 7A. (C-ID BIOL 110B) (CSU, UC-with unit limitation)

BIOL 0005X. Success in Anatomy
Unit: 1
Corequisite: Concurrent enrollment in BIOL 5
Hours: 18 lecture
Optional course for students concurrently enrolled in BIOL 5 to gain a deeper understanding of course material through discussions focused on anatomical concepts, terminology, and the implementation of anatomical knowledge to clinical and problem solving situations. Advanced study techniques, necessary for success in science courses, are modeled to strengthen student self-awareness, confidence, and ability to monitor learning. (CSU, UC)

BIOL 0006. Human Physiology
Units: 5
Prerequisite: Completion of CHEM 2A or 1A or 3A/3B; AND BIOL 5 or 7A/7B or 55 with grades of "C" or better
Advisory: Completion of MATH D with grade of "C" or better; completion of a non-majors general biology course with grade of "C" or better; and eligibility for ENGL C1000
Hours: 126 (72 lecture, 54 laboratory)
Study of the physiology, integration, and homeostasis of the human body from chemical through organism levels. Organ systems covered are integumentary, muscular, nervous, sensory, cardiovascular, lymphatic and immune, respiratory, urinary, digestive, endocrine, and reproductive system. Experiments using living and non-living models are performed in lab using methods of data acquisition, recording systems, and analysis of data. Primarily intended for Nursing, Allied Health, Kinesiology, and other health or life science majors. (C-ID BIOL 120B) (CSU, UC-with unit limitation)

BIOL 0010. Introduction to Biology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Designed for non-life science majors desiring an introductory biology course without a lab. Introduces the main concepts of biology, covering molecular and cell biology, heredity and nature of genes, biotechnology, evolution, diversity of life, and principles of ecology. Students enrolling in BIOL 11 after having taken BIOL 10 will lose credit for BIOL 10. Not recommended for students who have already completed BIOL 56. (CSU, UC-with unit limitation)

BIOL 0011. Concepts of Biology
Units: 4
Advisory: Eligibility for ENGL C1000 and MATH 12
Hours: 108 (54 lecture, 54 laboratory)
Designed for non-life science majors desiring an introductory biology course with a lab. Introduces the main concepts of biology, covering molecular and cell biology, heredity and nature of genes, biotechnology, evolution, diversity of life, and principles of ecology. Students enrolling in BIOL 11 after having taken BIOL 10 will lose credit for BIOL 10. Not recommended for students who have completed BIOL 56 and 56L. (CSU, UC-with unit limitation)

BIOL 0013. Field Methods in Ecology
Units: 3
Formerly known as BIOL 13B
Advisory: Completion of BIOL 14 or ESS 14 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
Introduction to methods for sampling and studying environmental parameters of ecosystems and organisms. Provides experience with quantitative and qualitative field research techniques and procedures applicable to environmental assessment and population monitoring and proper reporting methods. Field trips required. Students may be required to provide their own transportation. (CSU)

BIOL 0014. Natural History, Ecology and Conservation
Units: 4
Also known as ESS 14
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Introduction to the study of biology and ecology of organisms and ecosystems of the world, with an emphasis on California. Special focus on significance of functioning ecosystems and human influence on the environment. May include field trips during or in lieu of lab time. (CSU, UC)

BIOL 0015. Marine Biology
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
An introduction to the basic biological and ecological properties of major saltwater environments, including the conservation of and human impacts on marine resources. Designed for both science and non-science majors. Laboratory hours may be partially fulfilled by required field trips. Hiking and boat travel may be necessary. (CSU, UC)

BIOL 0016A. Local Ecosystems of Placer County
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces local natural areas and their inhabitants. Selected ecosystems in Placer County are investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016B. Local Ecosystems of Nevada County
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces local natural areas and their inhabitants. Selected ecosystems in Nevada County are investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016C. Vernal Pools and the California Prairie
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that explores the past, present, and future of California's prairie, grassland, and vernal pool ecosystems of the Central Valley. Emphasis on remaining natural areas and conservation efforts. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016D. Biology of Waterfowl and Marsh Birds
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field identification and observation of marsh birds (primarily ducks, geese, swans, and wading birds). Includes general waterfowl biology and ecology. Emphasizes evolution, migration, reproductive cycles, current population trends, and habitat needs. Operational needs and conflicts of national and local wildlife refuge system are discussed. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016E. Ecology of the Sierran Conifer Forest
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces forest biology/ecology, emphasizing interrelationships between the Sierran forest inhabitants (animals, plants, fungi) and their environment. Study sites include a variety of forest and other associated mountain ecological communities. Depending on season offered, special topics may include: fungi biology, wildflower ecology, tree anatomy and physiology, forest nutrient cycles, forest birds, and soil organisms. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0016G. Field Paleontology and Ancient Environments
Units: 1-2
Also known as ESCI 16G
Hours: 30 (12 lecture, 18 laboratory) per unit
Investigations into the ecology of environments in the geologic past through field work at fossil sites. Comparisons and contrasts made between ancient (fossil) communities and the current (living) communities of selected study sites. Differences and similarities between the plants and animals used as evidence to reconstruct ancient ecological communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016H. Ecology of the Mendocino Coast
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study examining the Northern California Coast and its diverse ecological environments. Using the Fort Bragg/Mendocino/Fort Ross areas, investigates the biological relationships found in: the redwood, riparian, pygmy, mixed evergreen and closed-cone pine forests, and the shoreline communities of tidepool, sandy beach, dune, prairie and scrub. Plants, animals, environmental factors and effects of human activities are assessed for each of the ecological communities examined. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016I. Biology of Mono Lake and the Great Basin
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study investigating the natural history and ecology of the Great Basin with special emphasis on Mono Lake and the Mono Basin. Examines physical, biological, historical, and ecological aspects that make the Mono Basin unique. Emphasis on biological and ecological aspects of the Mono Basin. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016J. Ecology of Point Reyes National Seashore
Unit: 1
Hours: 26 (14 lecture, 12 laboratory)
Field study exploring the coastal mosaic of Point Reyes National Seashore and vicinity. Using the ecological communities present (forests, shoreline, pond and prairie), this area provides a rich biological "laboratory" to study its unique organisms and natural ecosystems, including grasslands, mudflats, forests, marshes, cliffs, beach, and dune sites. Depending on season offered, emphasis may be on wildflowers, mushrooms, owls, elk, reptiles or other life forms. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016K. Foothill Ecology of the Sierra Nevada
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study investigating the ecology of the foothills to mid-montane zones of the Sierra Nevada. Focus on major terrestrial and aquatic ecosystems and ecological islands from 500 to 6000 feet elevation. This class may require ability to hike moderate distances on uneven ground. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016L. Aquatic and Riparian Environments of California Waterways
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study of the biological diversity and ecology of aquatic environments and the biology of water life. Focuses on the water cycle and its biological importance and human interactions. Ponds, vernal pools, streams, rivers, lakes, springs, meadows, bogs, marshes (fresh and salt), shorelines, deltas, and/or bay/estuary environments may be investigated. Study sites may include Lake Tahoe, the American River, San Francisco Bay and other aquatic locations. Hiking or boat travel may be necessary. This class may require ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016M. Marine Mammals and Birds
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field study of the biology of marine mammals and marine birds. Shore and pelagic organisms are studied, emphasizing California-associated species and their habitats. Field and lecture topics include: ecology, evolution, behavior, reproduction, distribution, anatomy, physiology, identification, and population status of whales, true and eared seals, sea otters, shore, bay and pelagic birds. This class may require ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class may involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016N. Ecology of the Modoc Plateau
Unit: 1.5
Hours: 39 (21 lecture, 18 laboratory)
Field ecology of volcanic and cold desert landscapes found in the Modoc Plateau region of California/Oregon. Ecosystems and environmental relationships stressed. Areas of emphasis include forest ecology, fresh water marsh/watershed, environmental factors, volcanic geology, plant succession, and human influences. Study sites include Lava Beds National Monument and Tule Lake Wildlife Refuge. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016O. Ecology of the High Sierra and White-Inyo Mountains
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study which examines high-elevation mountain ecosystems using the high Sierra Nevada and White-Inyo Mountain Range of California as specific study sites. Observation and study of sub-alpine and alpine ecosystems like forests, montane chaparral, meadows, aquatic habitats, alpine tundra, and fell-fields. This class requires the ability to hike moderate to long distances on uneven ground at high elevations. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016P. Ecology of Death Valley and Desert Ecosystems
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study that explores the unique desert ecosystems of Death Valley National Park and nearby areas. Extreme differences of elevation from high mountains to below sea level provide a rich variety of desert environments, plants, and animals. Field work emphasizes identification of animals and plants (many unique to these exotic desert habitats), their special physical and behavioral adaptations to the harsh desert climate and habitats, and the effects of human activities upon the fragile desert ecosystems. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Q. Ecology of Mid-Western North America
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field introduction to ecology of the major biomes, communities and life zones of the Midwestern and Western regions of the United States, emphasizing plains grasslands, montane forests, desert badlands, alpine zones, and aquatic habitats. Topics explored in each ecological area include climate, common plants and animals, species relationships, geology, historical changes, paleoecology and other environmental factors. Fossil and other evidence of past environments compared to present communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016R. Canyon Lands of the Southwest
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field biology and ecology of the southwestern canyonlands and semi-arid regions, such as the areas in and around the Grand Canyon, Zion Canyon, Bryce Canyon, or other similar areas in the Southwest. Local plants, animals, microenvironments, river systems, human impacts and resource management and special biotic relationships with the canyon landscapes emphasized. This class requires the ability to hike moderate to long distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016T. Ecology of the Northern California Coast
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field course exploring the unique biological and ecological features of the California north coast. Coastal ecosystems studied include redwood forest, coastal grassland, rocky tidepools, marshes, stream, bog, coastal strand, and mixed-evergreen forest. Topics covered include climate, geology, ecology, plant and animal diversity, and human impacts. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016U. Ecology of the Central California Coast
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study of the unique features of the central California coast between Morro Bay, Big Sur, Monterey Bay, and Point Reyes National Seashore. Coastal habitats explored, identifying coastal plants, animals, and geologic processes, and emphasizing the interrelationships characteristic of coastal environments. Environments studied include sandy beach, ocean bay, tidepool, mudflat, coastal forest, oak woodland, grassland and coastal scrub. Areas are contrasted with other coastal regions. Human impacts and living styles viewed as they affect the natural environments. This class requires the ability to hike moderate distances on uneven ground. Boat travel may be necessary. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016V. Ecology of Southern California Deserts
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Explore and study the "hot" deserts of southern California, such as the Mojave, Sonoran/Colorado, or other arid locations, discovering the unique animals and plants which are adapted to these extreme and beautiful environments. Deserts compared to nearby coastal habitats or the desert ecosystems in Arizona (depending on local conditions). California study sites visited may include Joshua Tree National Park, Mojave Desert, Salton Sea, and Anza-Borrego State Park. Focus on the interdependency between the physical environments and the biological inhabitants that live there.This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016W. Ecology of the Klamath and Southern Cascade Ranges
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study that explores ecology and unique features of the Klamath and southern Cascade mountain ranges. Study sites include a variety of locations such as Mt. Lassen, Crater Lake, and/or the Marble Mountains. Topics include conifer forest ecosystems, lake ecosystems, ecological succession, montane biogeography, volcanic history and geology. This class requires the ability to hike moderate distance on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Y. Ecology of National Parks and Wilderness Ecosystems
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field study exploring the ecology of selected wilderness ecosystems in and/or around national parks. Observation and study of the various habitats (forest, chaparral, riparian, etc.), including the physical and biological factors shaping these ecosystems, and the management techniques, history, and objectives of wilderness preservation and resource use in these areas. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

BIOL 0016Z. Ecology of the American River
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study of the aquatic, riparian, and associated ecosystems of Sierra Nevada river systems with specific attention on the American River system. This class may require the ability to hike moderate distances on uneven ground. (CSU)

BIOL 0017B. Ecology of the Sutter Buttes
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Field study that introduces the ecology of the Sutter Buttes. The area is investigated in the field to identify and study the characteristic plants and animals and discover their relationships with the physical environment. This class may require ability to hike moderate distances on uneven ground. (CSU)

BIOL 0021. Introduction to Plant Science
Units: 4
Also known as AGRI 156
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Emphasizes structure, growth, physiology and reproduction of flowering plants and their responses to modifications and environment; including propagation, media, soil and plant nutrition. Explores the interrelationship of plant science with other life sciences and technology. Applies principles of plant science to agricultural systems. (CSU, UC)

BIOL 0023. Wildflower Identification
Unit: 1
Hours: 26 (13 lecture, 13 activity)
Plant identification, terminology, keying, uses, and ecology. Field trips may require ability to hike moderate distances on unlevel ground. (CSU)

BIOL 0024. Wildland Trees and Shrubs (Dendrology)
Units: 4
Also known as AGRI 163
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A study of botanical characteristics, taxonomy, and physiology of the major trees and shrubs in the Western United States with emphasis on California. Discussion of plant community relationships, geographical ranges, and human impact on forest ecosystems. Identifying specimens under field conditions and using herbarium specimens. (CSU)

BIOL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

BIOL 0030. Introduction to Ornithology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of birds, with an emphasis on northern California avifauna. (CSU, UC)

BIOL 0033. Introduction to Zoology
Units: 4
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A survey of the animal kingdom emphasizing the evolution, structure, function, ecology, and natural history of major groups of animals. Designed for non-science majors. (CSU, UC-with unit limitation)

BIOL 0035. Introduction to Entomology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of insects, with examples from the insect fauna of northern California. Describes the key relationships (medical, agricultural, etc.) insects have with humans. Recommended for general education students or other majors interested in entomology. (CSU, UC)

BIOL 0036. Introduction to Mammalogy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the general ecology, evolution, and physiology of mammals, with an emphasis on species of northern California. Topics include: identifying characteristics, local species, ecological relationships, human interactions, and behavioral, structural, and physiological adaptations. Recommended for general education students or other majors interested in mammals. (CSU)

BIOL 0055. General Human Anatomy and Physiology
Units: 4
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 108 (54 lecture, 54 laboratory)
An overview of the basic anatomy and physiology of all body systems. Designed for non-science majors and those interested in human anatomy and physiology. Experiments and observations performed on models, nonliving systems, and oneself. (CSU, UC-with unit limitation)

BIOL 0056. Biology: A Human Perspective
Units: 3
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 lecture
Principles of biology and how they relate to humans. Emphasis on the human organism, including anatomy, physiology, medicine, research, genetics, evolution, ecology and human impacts on the environment. Not recommended for Biological Sciences majors or students who have completed BIOL 10 or BIOL 11. (CSU, UC-with unit limitation)

BIOL 0056L. Biology: A Human Perspective Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in BIOL 56
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Optional laboratory course to be taken with BIOL 56. Topics parallel lecture course, including anatomy, physiology, medicine, research, genetics, evolution, ecology and human impacts on the environment. Not recommended for students who have completed BIOL 11. (CSU, UC-with unit limitation)

BIOL 0095. Internship in Biological Sciences
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

BIOL 0140. Organismal Biology
Units: 4.5
Prerequisite: Completion of intermediate algebra or higher with grade of "C" or better or appropriate placement
Advisory: Eligibility for ENGL C1000
Hours: 144 (54 lecture, 90 laboratory)
Part of the BIOL 1/BIOL 140 course series for life science majors. Introduction to the principles of ecological and evolutionary processes that shape biodiversity with an emphasis on evolutionary relationships among major groups of organisms, their distinguishing structural and functional traits, the function and evolution of major organ systems, and ecological interactions among organisms. Through lecture and lab activities the diversity of life on Earth is covered, including animals, plants, fungi, and unicellular organisms. Field trips may be required; transportation will be provided. Recommended for biology majors and students in related programs. Non-life science majors see BIOL 14. Not recommended for students taking BIOL 2 and BIOL 3. (CSU, UC)

Building Industries (BI)

BI 0001. OSHA Construction Safety Training
Unit: 1
Formerly known as CET 1
Hours: 18 lecture
Covers a variety of construction safety and health hazards workers may encounter. Provides safety information to construction workers about employee and employer rights and responsibilities. Emphasizes identification, avoidance, abatement, control, and prevention of job-related hazards on construction sites. This course is taught by authorized industry outreach trainers, and upon successful completion, students will receive the OSHA 10 Hour card. (not transferable)

BI 0002. OSHA 30-Hour Construction Safety Training
Units: 2
Hours: 36 lecture
Covers specific OSHA requirements as they apply to the construction industry and teaches safety awareness to help recognize and reduce the risks of job site hazards. This course is an orientation and covers safety and health hazards workers may face on construction work sites with emphasis on hazard identification, avoidance, control and prevention and is intended for supervisors or workers who have some safety responsibility. Upon successful completion, 30 hour OSHA card issued by instructor. (not transferable)

BI 0003. Introduction to Construction and CNC Woodworking
Units: 3
Formerly known as CET 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 1
Hours: 108 (36 lecture, 72 laboratory)
Designed to teach the skills required to be successful in the construction and woodworking industries. Topics include fundamentals of woodworking, safe operation of hand tools, introduction to wood CNC manufacturing, project drawings, and environmentally sound design and construction techniques. Hands-on experience with construction and woodworking tools and materials based on assigned student project(s). (not transferable)

BI 0005. Introduction to the Built Environment
Units: 3
Formerly known as CET 5
Hours: 54 lecture
Introduction to the building industry: trends, organizations, construction processes, contracting laws, regulations, business aspects and career pathways. (CSU)

BI 0006. Introduction to Construction Management
Units: 3
Prerequisite: Completion of BI 5 with grade of "C" or better
Hours: 54 lecture
Introduction to Construction Management. Topics are based on learning outcomes from the American Council for Construction Education (ACCE). This course introduces the structure of construction estimation, financing, and proper planning. (CSU)

BI 0007. Building with Green Construction Materials
Units: 4
Formerly known as CET 7
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 1
Hours: 180 (18 lecture, 162 laboratory)
Project-based study of the performance characteristics of building materials using sustainable construction techniques and materials. Includes the basic properties and installation techniques of metals, aggregates, cement products, asphalt products and wood. Safe handling of construction materials and tools. (CSU)

BI 0008. Civil Applications of Computer-Aided Design
Units: 3
Formerly known as DES 10
Prerequisite: Completion of ADVM 2 or BI 10 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Development of drafting skills used in the areas of industrial and civil engineering support. Emphasis on land division, determination of location and direction, development of plots based upon legal description and the fundamentals of utilizing surveying data as applied to preliminary and final maps. Designed for students who have attained an intermediate knowledge of the processes and practices of engineering design/drafting support. Introduction to AutoCAD Civil 3D software. (CSU)

BI 0010. Architectural Drawing I
Units: 3
Formerly known as DES 20
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Introduction to the fundamentals of residential construction and design documentation. Drawings of a residence are developed and detailed, to include sketches, site plan and floor plans, foundation, elevations, and section views. AutoCAD instruction is incorporated to develop CAD drawings and electronic data sets. (CSU)

BI 0011. Architectural Drawing II
Units: 3
Formerly known as DES 21
Prerequisite: Completion of BI 10 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Advances the skills and knowledge of residential architectural drawing production started in BI 10. Course focuses on production of residential architectural drawings of a 2-story wood framed house in the context of current and relevant building codes, construction materials and methods, industry standard work flow, production and graphic standards through the use of a drawing software application. Additional skills of software utilization, drawing management, complex drawing creation and printing will be covered. This course teaches intermediate AutoCAD skills. (CSU)

BI 0012. Architectural Drawing III-BIM (Building Information Modeling)
Units: 3
Formerly known as DES 22
Prerequisite: Completion of BI 11 with grade of "C" or better or equivalent as determined by instructor
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Continuation of the architectural design started in BI 10 and 11. Students utilize Building Information Modeling (BIM) using REVIT software to develop commercial architectural documentation (including electronic data sets) in adherence to the International Building Code (IBC) and local county and state codes. (CSU)

BI 0015. Managing the Computer-Aided Design (CAD) Environment
Units: 3
Formerly known as DES 40
Prerequisite: Completion of BI 8, ADVM 11 or BI 12 with grade of "C" or better, or equivalent as determined by instructor
Advisory: Completion of ADVM 3D with grade of "C" or better
Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Designed for the advanced Drafting and Engineering Support student. Topics include proper CAD management skills and the development of "as built" models used in the manufacturing, architectural and civil disciplines. Focus on utilizing, creating and instituting CAD standards, policies and procedures. Development of prototypes integral to the design process in their chosen area of concentration (mechanical, civil and/or architecture). (CSU)

BI 0020. Foundations and Framing
Units: 3
Formerly known as CET 20
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of construction foundation and framing techniques involving layout and construction to include, establishing elevations, site preparation, types of foundation forms, rebar and bolt installation, concrete placement techniques for slab on grade, cast in place (CIP), and pre-cast installations, structural steel, various types of floor systems, and applicable code requirements specific to the above. Introduction to California Green Technology and "Net Zero Energy" policies and sustainability practices for residential, commercial, and industrial construction. (CSU)

BI 0022. Introduction to Energy Efficiency Construction
Units: 3
Formerly known as CET 22
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of residential, commercial, and industrial framing techniques to include interior and exterior walls, ceilings, roof systems, stair design, installation and placement of sub trades including dry mechanical, plumbing, electrical, and structural steel post and beam installations. Introduction the future of construction as it evolves utilizing California Green Technology, "Net Zero Energy" policies, and sustainability practices. (CSU)

BI 0024. Fundamentals of Construction Documents and Estimating
Units: 3
Formerly known as CET 24
Hours: 54 lecture
Establishes a vocabulary and understanding of construction related documents including the symbols and detail views of building plans. Cost estimating to include material and labor cost calculations, specifications, problem solving, and bid preparations. (CSU)

BI 0026. Residential House Wiring and Codes
Units: 3
Formerly known as CET 26
Hours: 108 (36 lecture, 72 laboratory)
Introduction in the electrical trade. Inside wiring as applied to residential, commercial, and industrial structures. Electrical service requirements for photovoltaic systems. Use of tools and materials of the trade. Review of the National Electrical Code and the applications and California Electrical Code updates to the California Green Technology and "Net Zero Energy" policies. (CSU)

BI 0028. Independent Study
Units: 1-3
Formerly known as CET 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

BI 0030. Finish Carpentry
Units: 3
Formerly known as CET 30
Advisory: Completion with grade of "C" or better or concurrent enrollment in BI 3
Hours: 108 (36 lecture, 72 laboratory)
Fundamentals of woodworking hand tools, power hand tools and woodworking machinery to safely develop knowledge and skills leading to finish trim carpentry. Emphasis on residential construction finish carpentry standards, details, nomenclature, trims, and methods of setting interior and exterior doors, window jamb and trims, closet packs, cabinet installs, wainscoting, stair trim and railings, base and ceiling trims and finished flooring applications. (not transferable)

BI 0032. Residential Building Codes
Units: 3
Formerly known as CET 32
Hours: 54 lecture
Instruction in building codes for light frame one- or two-story dwellings related to local jurisdictions and the State of California. Application of codes to existing buildings with a study of regulations and abatement procedures for standard frame and Insulated Concrete Forms (ICF) green technology buildings. Includes codes related to California Green Technology and "Net Zero Energy" policies. (not transferable)

BI 0034. Plumbing and Mechanical Installation and Design
Units: 3
Formerly known as CET 34
Hours: 108 (36 lecture, 72 laboratory)
Introduction to the planning, installing, and maintaining of mechanical (HVAC/R) and plumbing systems in accordance with local codes and ordinances. Includes use of materials and codes related to California Green Technology and "Net Zero Energy" policies. (CSU)

BI 0095. Internship in Building Industries
Units: 0.5-4
Formerly known as CET 95
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU)

BI 0800. Introduction to Energy Surveying
Units: 0
Formerly known as CET 800
Prerequisite: Completion of BI 1 with grade of "C" or better, or equivalent as determined by the program chair
Hours: 40 (24 lecture, 16 laboratory)
Competency-based course of instruction designed to align with the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) Level-1 energy auditing standards. Provides hands-on experience in residential and commercial energy auditing. Emphasis on principles and sources of energy, detailed facilities evaluation techniques, data collection for energy auditing, establishing baselines, and conducting accurate inventories. Includes workplace safety policies and practices to comply with OSHA guidelines. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0801. Basic Electricity and Wiring Fundamentals
Units: 0
Formerly known as CET 801
Prerequisite: Completion of BI 800 with grade of "Pass"
Hours: 40 (20 lecture, 20 laboratory)
This comprehensive introduction to electrical wiring provides a well-rounded understanding of the fundamentals of basic electricity, electrical safety, electrical circuitry, and the processes and procedures of the electrical wiring trades. Includes relevant electrical codes. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0802. Introduction to Lighting Retrofits
Units: 0
Formerly known as CET 802
Prerequisite: Completion of BI 801 with grade of "Pass"
Hours: 40 (20 lecture, 20 laboratory)
Provides well-rounded competency-based understanding of lighting retrofit trade fundamentals through hands-on experience in commercial retrofit procedures and skills. Includes electrical safety, policies, and practices as relate to retrofit work. Students required to secure personal protective equipment as of first class session. (pass/no pass grading) (noncredit)

BI 0804. Rapid Prototyping for Product Design
Units: 0
Formerly known as CET 804
Hours: 18 (9 lecture, 9 laboratory)
Hands-on exposure to processes used to fabricate prototypes. An introduction to tools and technologies for prototyping, including design for manufacture. Example products show the process from idea to market including the series of prototypes that helped get the product to successful sales. Course materials cover safe hand tool use, power woodworking hand tools, wood shop tools, laser cutting, and CNC routers. (pass/no pass grading) (noncredit)

BI 0805. Introduction to Industry and Occupational Safety for the Building Trade
Units: 0
Formerly known as CET 805
Hours: 28 (24 lecture, 4 laboratory)
Provides an introduction to the building trades as an occupation. Covers a variety of construction safety and health hazards workers may encounter. Provides safety information to construction workers about employee and employer rights and responsibilities. Emphasizes identification, avoidance, abatement, control, and prevention of job-related hazards on construction sites. Upon successful completion, 10 hour OSHA card issued by instructor. (pass/no pass grading) (noncredit)

BI 0806. Introduction to Building Trades and Tools
Units: 0
Formerly known as CET 806
Prerequisite: Completion of BI 805 with grade of "Pass"
Hours: 48 (27 lecture, 21 laboratory)
Provides an overview of the local/regional building trade industry. Introduces students to the proper and safe operation of hand and power tools used in construction. Covers the fundamentals of construction math, measurements and blueprints. Emphasizes the employability skills such as time management, communication and proper attire for success in the construction industry. (pass/no pass grading) (noncredit)

BI 0807. Basic Material Handling and Building
Units: 0
Formerly known as CET 807
Prerequisite: Completion of BI 806 with grade of "Pass"
Hours: 53 (36 lecture, 17 laboratory)
Provides an overview of building materials and techniques for construction. Introduces students to basic trades including plumbing, electrical, and HVAC. Covers the fundamentals of framing, flooring, and tiling. Explains relevant building codes. (pass/no pass grading) (noncredit)

Business (BUS)

BUS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

BUS 0095. Internship in Business
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

BUS 0130. Payroll: Essential Laws and Regulations
Units: 3
Formerly known as BUS 11
Advisory: Completion of BUS 144 or BUS 201 with grade of "C" or better
Hours: 54 lecture
Covers fundamental payroll laws and calculations. Topics include the Federal Labor Standards Act (FLSA) and related California laws including hours of work, regular and overtime pay, minimum wage, child labor laws, the Equal Pay Act, and taxable or non-taxable compensation. This class is part of a three-class series designed to prepare students for accounting careers and payroll industry certification. (not transferable)

BUS 0144. Accounting Fundamentals for Small Business Owners
Units: 3
Formerly known as BUS A
Hours: 54 lecture
An introductory course for students without previous study in bookkeeping or accounting. Provides practical skills for bookkeepers, account clerks, business owners, managers, administrative assistants and others needing practical knowledge of basic accounting. Includes basic accounting principles, payroll, sales and purchasing cycles. This course is not a prerequisite for BUS 201. (not transferable)

BUS 0146. QuickBooks for Small Business Accounting
Units: 3
Formerly known as BUS 8
Prerequisite: Completion of BUS 144 or BUS 201 or equivalent with grade of "C" or better
Hours: 54 lecture
Introduction to the principles and procedures of accrual accounting using an industry computer accounting program. Accounting applications include general ledger, purchases and accounts payable, sales and accounts receivable, payroll, merchandise inventory, and job costing. Includes completion of the accounting cycle, preparation of financial statements, and analysis of financial statements for service and retail organizations. (not transferable)

BUS 0159. Essential Skills - Soft Skills for a Changing World
Units: 2
Hours: 36 lecture
Interactive lessons designed to teach college students, adult learners, and workforce development representatives the transferable skills all modern workers need for success in our global economy. Topics include: Adaptability, Analysis/Solution Mindset, Collaboration, Communication, Digital Fluency, Entrepreneurial Mindset, Empathy, Resilience, Self-Awareness, Innovation and Creativity and Social/Diversity Awareness. (CSU)

BUS 0201. Financial Accounting I
Units: 3
Formerly known as BUS 1
Hours: 54 lecture
Principles of accounting and recording transactions within the accounting cycle. Students analyze financial statements, compare and contrast different forms of business entities, and discuss internal controls for entities to reduce the risk of fraud. Topics also include the preparation of a bank reconciliation, petty cash transactions, inventories, and cost of goods sold. (combined with BUS 202, C-ID ACCT 110) (CSU, UC)

BUS 0202. Financial Accounting II
Units: 3
Formerly known as BUS 2
Prerequisite: Completion of BUS 201 with grade of "C" or better
Hours: 54 lecture
Concepts of accounts receivable and how to account for bad debts and depreciation of assets. Study of current and long term liabilities and how to account for them, including accounts payable, payroll taxes, mortgages, and bonds. Covers the concept of equity including stocks and dividends. Financial ratio analysis tools also help students quickly assess the overall financial health of a business. (combined with BUS 201, C-ID ACCT 110) (CSU, UC)

BUS 0203. Managerial Accounting
Units: 3
Formerly known as BUS 3
Prerequisite: Completion of BUS 202 with grade of "C" or better
Hours: 54 lecture
Examination of how managers use accounting information in decision-making, planning, directing operations, and controlling operations. Focus on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations, and capital budgeting, cost control, and accounting for costs in manufacturing organizations. (C-ID ACCT 120) (CSU, UC)

BUS 0210. Ethical Studies in Business
Units: 3
Also known as PHIL 210
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore critical moral issues in the business realm, including diversity, equity, and inclusion, corporate responsibility, global economic impacts, environmental concerns, the distribution of wealth, advertising ethics, and digital privacy. This course analyzes these topics emphasizing fundamental moral philosophical theories and principles essential for understanding and resolving ethical challenges in today's business environment. (C-ID PHIL 120) (CSU, UC)

BUS 0215. Personal Finance
Units: 3
Formerly known as BUS 101
Prerequisite: Completion of Elementary Algebra or appropriate placement
Hours: 54 lecture
Practical approach to personal finance principles. Offers a basic understanding of spending, saving, budgeting, borrowing, lending and investing money; credit and debit cards, credit reports/scores, identity theft, insurance, compound interest, retirement, estate planning, and investments. The social, psychological, and economic issues related to financial planning will be explored in addition to the calculation and analysis of the financial impacts of their decisions. This course will emphasize the principles to develop economic decision-making skills. Students will create a personal financial plan, including goals, budgets and a savings plan. (CSU, UC)

BUS 0216. Investments
Units: 3
Formerly known as BUS 19
Advisory: Completion of BUS 201 and BUS 202 or BUS 215 with grade of "C" or better
Hours: 54 lecture
Introduction to investment opportunities, principles and practices. Includes investments in government and corporate securities, mutual funds, real estate, and tax advantaged securities. (CSU)

BUS 0220. Introduction to Federal Income Tax for Individuals
Units: 3
Hours: 54 lecture
Introduction to Federal Income Tax with emphasis on terminology, statutory materials, principles, and tax planning for Federal Individual Income Tax. Provides basic concepts of gross income, exclusions, adjusted gross income, deductions, exemptions, tax credits, and the calculation of tax to properly prepare a Form 1040 Individual Tax Return. (CSU)

BUS 0241. Innovation Concepts for Starting a Small Business
Units: 3
Formerly known as BUS 141
Hours: 54 lecture
Develops essential skills in evaluating, articulating, refining, and pitching a new product or service offering, either as a new business idea or as an additional offering in an existing business. Applies innovative concepts on how to plan and get started, personal and people skills, different business trades and industries, networking and opportunities, how to get and develop customers. (CSU)

BUS 0242. Entrepreneurship - Small Business Management
Units: 3
Formerly known as BUS 140
Hours: 54 lecture
Practical aspects of managing a small business. Focus will be on how to grow and manage an existing business (including independent contractors/freelancers and online businesses). Areas of coverage include: forms of ownership, franchising, and preparing a business plan; financing growth for a business; accounting and marketing fundamentals; managing human resources, technology, regulation, how to grow/scale, professional networking and insurance requirements. (CSU)

BUS 0250. Microsoft Applications for Business
Units: 3
Formerly known as IT 10
Hours: 72 (54 lecture, 18 laboratory)
An overview of business and academic use of software for word processing, spreadsheets, charting data, databases, and presentations. Using Microsoft software, managing files, using online tools, transmitting files via the Internet. Common computer hardware and software system concepts; impact of computers on society, networks and security. Course will use Microsoft Office 365 (2019 or higher) applications of Word, Excel, and PowerPoint. (CSU)

BUS 0252. Excel for Business Applications
Units: 3
Advisory: Completion of BUS 250 and SKDV 10 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Design and use of "what-if" analysis, data analytics and charting, financial functions, data and lookup tables, amortization schedules and templates. Includes working with multiple worksheets and workbooks, analyzing worksheet results, sorting and querying a worksheet database, using macros, and integrating software. (CSU)

BUS 0260. Introduction to Business
Units: 3
Formerly known as BUS 20
Hours: 54 lecture
A survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. and a global society. Demonstrates how these influences impact the primary areas of business including: organizational structure and design, leadership, human resource management, organized labor practices, marketing, organizational communication, technology, entrepreneurship, legal, accounting, financial practices, stocks and securities market. (C-ID BUS 110) (CSU, UC)

BUS 0261. Customer Service Skills
Units: 3
Formerly known as BUS 116
Hours: 54 lecture
Provides the student with understanding and knowledge of the importance of meeting customer needs in a service economy. Emphasis on developing specific skills and abilities critical to providing excellent customer service. Introduction to the concepts of internal and external customers, customer satisfaction and retention. Topics include communicating with customers, developing a positive attitude, handling complaints and ethical issues. (CSU)

BUS 0265. Business Communications
Units: 3
Formerly known as BUS 102
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Applies the principles of effective communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes planning, organizing, composing, and revising business documents using word processing software and artificial intelligence tools for written documents and presentation-graphics software to create and deliver professional-level oral reports. (C-ID BUS 115) (CSU)

BUS 0266. Introduction to Oral Communication
Units: 3
Formerly known as BUS 85
Advisory: Completion of ENGL N or equivalent with grade of "C" or better or placement by matriculation assessment process recommended
Hours: 54 lecture
Introduction to oral communication focuses on the basic foundations of interpersonal communication, small group communication, and public speaking. Students will be introduced to the breadth of the communication discipline. Examine and practice human communication principles and theories to develop critical thinking and communication competencies in a variety of contexts, including personal, professional, intercultural, computer-mediated, and family interactions. (C-ID COMM 115) (CSU, UC)

BUS 0270. Business Law
Units: 3
Hours: 54 lecture
Fundamental legal principles pertaining to business transactions. Introduction to the legal process. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes. (C-ID BUS 125) (CSU, UC)

BUS 0271. Law and Society
Units: 3
Formerly known as BUS 49
Hours: 54 lecture
Introduction to the law as an instrument of social and political control in society. Topics include sources of law and ethics, contracts, torts, agency, judicial and administrative processes, employment law, forms of business organizations, and domestic and international governmental regulations. (C-ID BUS 120) (CSU, UC)

BUS 0273. International Business Practices
Units: 3
Formerly known as BUS 55
Advisory: Eligibility for ENGL C1000 or equivalent
Hours: 54 lecture
Foundations for understanding the global marketplace and effective international business practices and procedures. Students identify/compare cultural differences and acquire skills necessary for interacting with foreign business professionals. Topics include: international trade, importing/exporting, currencies and exchange, ethics, international travel, technological impacts, and careers in international business. (CSU)

BUS 0275. Management Concepts and Applications
Units: 3
Formerly known as BUS 100
Hours: 54 lecture
Career focused course that explores management concepts. Includes the four management functions of planning, controlling, leading, and organizing, with emphasis on practical application of skills in communication, leadership, decision-making, staffing, motivation, delegation, and team-building to supervise others. Students are given opportunities to apply newly acquired ideas and techniques to workplace situations. (CSU)

BUS 0276. Organizational Behavior and Human Relations
Unit: 1.5
Formerly known as BUS 99
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 27 lecture
Closely examines concepts for motivating and coordinating people to manage change in organizations. The content and activities focus on the fundamentals of understanding, analyzing and changing behaviors of individuals and groups in a diverse work environment. Carefully examines the interactions among people within organizations to satisfy employee needs while achieving organizational objectives. (CSU)

BUS 0277. Human Resource Management
Units: 3
Formerly known as BUS 103
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A foundational management course for understanding how to manage human capital. The coursework includes a mix of practical application projects and case studies that demonstrate the importance of human resources to care for employees, drive innovation, and create a competitive advantage. An overview of the functional areas of Human Resources including recruitment and staffing, labor laws and legal compliance, compensation and benefits, training and development, workplace health, safety, and security and employee relations. (CSU)

BUS 0278. Negotiation, Conflict Resolution and Peacebuilding in the Workplace
Unit: 1.5
Hours: 27 lecture
Develop skills necessary for effective conflict resolution and confrontation management in the workplace. Explore resolution styles, and negotiation techniques, understand the nature, causes, and levels of conflict in the workplace. Learn practical techniques for resolving or managing conflict in positive ways; and apply cross-cultural approaches to promote workplace civility and peacebuilding. (CSU)

BUS 0279. The New Supervisor
Unit: 1.5
Hours: 27 lecture
Opportunities and challenges of becoming a new supervisor; contemporary roles of the supervisor; skills, functions, and activities of managing others; direction and guidance, ensuring compliance and quality, onboarding and training, monitoring performance, evaluating employees, and human relations. (CSU)

BUS 0280. Introduction to Marketing
Units: 3
Formerly known as BUS 120
Hours: 54 lecture
Explores the fundamental concepts of marketing that allow businesses to find, satisfy, and retain customers. Topics includes marketing research, identifying and selecting target markets, understanding consumer behavior, and making product, pricing, distribution, and promotion decisions. Students will also explore and assess the effectiveness of digital marketing tools including social media marketing, email marketing, and search engine marketing. (CSU)

BUS 0282. Digital Marketing Essentials
Units: 3
Formerly known as BUS 122
Advisory: Completion of BUS 280 and BUS 250 with grades of "C" or better or equivalent
Hours: 54 lecture
Exploration, analysis, and application of digital tools used by marketing professionals. Focus on technical skills and marketing expertise in the following areas: Social Media Marketing Platforms, SEO, Analytics tools, Basic Design Software, Content Creation, CRM Software, Advertising Platforms, E-commerce Platforms, and Digital Marketing Integration. Emphasis on basic marketing skill acquisition to effectively run a department of 1, or work as a marketing contractor or coordinator. (CSU)

BUS 0284. Selling Dynamics
Units: 3
Formerly known as BUS 124
Hours: 54 lecture
Demonstrates the importance of effective personal selling techniques, communication skills and organizational success. The course will examine the personal selling philosophy and career opportunities in professional consumer and business selling. Explore the presentation process, presentation strategies and trade shows. Techniques are illustrated in the steps of selling: approach, sales demonstration, overcoming objections, negotiation, closing, and servicing the sale. Examine the social, ethical, and legal issues of selling. This course is recommended for any student who wants to develop better personal and selling techniques for resume, job or promotion opportunities. (CSU)

BUS 0290. Real Estate Principles
Units: 3
Hours: 54 lecture
Introductory real estate course surveying general concepts, rules, principles, applications, and practice areas common to California real estate and real estate transactions; provides understanding, background, and terminology necessary and required for advanced study in other fundamental or specialized courses. Helpful to everyone seeking understanding of real estate related businesses or professions, seeking to qualify for license examination, and/or covering tested concepts and terminology. (CSU)

BUS 0291. Real Estate Practice
Units: 3
Advisory: Completion of BUS 290 with grade of "C" or better
Hours: 54 lecture
Fundamental Real Estate course that focuses on application and use of core real estate concepts in day-to-day operations, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics, while utilizing common, form documents (contractual, disclosure, etc.) consistent with professional and industry standards. This course will include interactive, participatory, and other in-class activities designed to address legally required topics, including regulatory and ethical practices. This course is helpful to everyone preparing for the real estate license examination, covering many additional and tested concepts with terminology. (CSU)

BUS 0292. Legal Aspects of Real Estate
Units: 3
Advisory: Completion of BUS 290 with grade of "C" or better
Hours: 54 lecture
Explores the practical aspects of California Law with a focus on its relevance to Real Estate and Real Estate Businesses. This includes involving all students in discussions on sources of law, government regulation, litigation process, dispute resolution alternatives, property ownership divisions, transfer, title, contracts, escrow, agency, disclosure duties and landlord/tenant relationships. Students will also consider common sources of liability risk related to common real estate transactions and how to manage them. This course is helpful to everyone with an interest in Real Estate related transactions, preparing for the Real Estate Licensing exam and is required for those intending to ultimately seek a Real Estate Broker's License. (CSU)

BUS 0809. Personal Investment and Retirement Planning for Retirees
Units: 0
Hours: 8 lecture
Course designed for older adults. Techniques are offered to manage investments during retirement; includes generating both income and growth for investments, fixed income, stocks, mutual funds, annuities. May be repeated. (noncredit)

BUS 0815. Personal Finance
Units: 0
Hours: 54 lecture
Practical approach to personal finance principles. Offers a basic understanding of spending, saving, budgeting, borrowing, lending and investing money; credit and debit cards, credit reports/scores, identity theft, insurance, compound interest, retirement, estate planning, and investments. The social, psychological, and economic issues related to financial planning will be explored in addition to the calculation and analysis of the financial impacts of their decisions. This course will emphasize the principles to develop economic decision-making skills. Students will create a personal financial plan, including goals, budgets and a savings plan. (pass/no pass grading) (noncredit)

BUS 0816. Investments
Units: 0
Advisory: Completion of BUS 201 and BUS 202 with grade of "C" or better or BUS 815 with grade of "Pass"
Hours: 54 lecture
Introduction to investment opportunities, principles and practices. Includes investments in government and corporate securities, mutual funds, real estate, and tax advantaged securities. (pass/no pass grading) (noncredit)

BUS 0841. Innovation Concepts for Starting a Small Business
Units: 0
Hours: 54 lecture
Develops essential skills in evaluating, articulating, refining, and pitching a new product or service offering, either as a new business idea or as an additional offering in an existing business. Applies innovative concepts on how to plan and get started, personal and people skills, different business trades and industries, networking and opportunities, how to get and develop customers. (pass/no pass grading) (noncredit)

BUS 0842. Entrepreneurship - Small Business Management
Units: 0
Hours: 54 lecture
Practical aspects of managing a small business. Focus will be on how to grow and manage an existing business (including independent contractors/freelancers and online businesses). Areas of coverage include: forms of ownership, franchising, and preparing a business plan; financing growth for a business; accounting and marketing fundamentals; managing human resources, technology, regulation, how to grow/scale, professional networking and insurance requirements. (pass/no pass grading) (noncredit)

BUS 0859. Essential Skills - Soft Skills for a Changing World
Units: 0
Formerly known as BUS 800
Hours: 36 lecture
Interactive lessons designed to teach college students, adult learners, and workforce development representatives the transferable skills all modern workers need for success in our global economy. Topics include: Adaptability, Analysis/Solution Mindset, Collaboration, Communication, Digital Fluency, Entrepreneurial Mindset, Empathy, Resilience, Self-Awareness, Innovation and Creativity, and Social/Diversity Awareness. (pass/no pass grading) (noncredit)

BUS 0861. Customer Service Skills
Units: 0
Hours: 54 lecture
Provides the student with understanding and knowledge of the importance of meeting customer needs in a service economy. Emphasis on developing specific skills and abilities critical to providing excellent customer service. Introduction to the concepts of internal and external customers, customer satisfaction and retention. Topics include communicating with customers, developing a positive attitude, handling complaints and ethical issues. (pass/no pass grading) (noncredit)

Chemistry (CHEM)

CHEM 0000A. Preparation for College Chemistry
Units: 4
Prerequisite: Completion of first year high school algebra or MATH A with grade(s) of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
A nontransferable course primarily intended to prepare students for college general chemistry. Includes a brief review of math operations important in chemistry, metric system, formulas, equations, gas laws, and solutions through related lecture and laboratory exercises. (not transferable)

CHEM 0001A. General Chemistry I
Units: 5
Prerequisite: Completion of CHEM A or equivalent with grade of "C" or better; and completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent; and satisfactory score on the Chemistry Placement Examination
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Introduction to the general principles of chemistry with emphasis upon quantitative relationships. Properties of matter related whenever possible to present concepts of atomic structure and to the periodic table. Includes atomic structure, the mole concept, gas laws, stoichiometry, redox, states of matter, solutions, and an introduction to modern theories of chemical bonding through related lecture and laboratory exercises. Students enrolling in CHEM 1A after having completed CHEM 3A will lose credit for CHEM 3A. Note: Not open to students who have completed CHEM 3B. CHEM 1A/1B sequence may be started any semester. (C-ID CHEM 110) (combined with CHEM 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0001B. General Chemistry II
Units: 5
Prerequisite: Completion of CHEM 1A or 3B with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
A continuation of CHEM 1A. Includes chemical kinetics, equilibrium, acid-base theory, thermodynamics, electro-chemistry, modern theories of bonding, and nuclear chemistry through related lecture and laboratory exercises. Note: CHEM 1A/1B sequence may be started any semester. (combined with CHEM 1A or CHEM 3A/3B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0001X. Problem Solving for Chemistry 1A
Unit: 1
Prerequisite: Completion of CHEM A or equivalent with grade of "C" or better; and completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent; and satisfactory score on the Chemistry Placement Examination
Corequisite: Concurrent enrollment in CHEM 1A
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 18 lecture
Optional problem solving course to accompany CHEM 1A. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include atomic structure, the mole concept, gas laws, stoichiometry, redox, intermolecular forces, solid state chemistry, solution chemistry, and chemical bonding. (CSU)

CHEM 0001Y. Problem Solving for Chemistry 1B
Unit: 1
Prerequisite: Completion of CHEM 1A or 3B with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 1B
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 18 lecture
Optional problem solving course to accompany CHEM 1B. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include equilibrium, chemical kinetics, acid-base theory, thermodynamics, electro-chemistry, and nuclear chemistry. (CSU)

CHEM 0002A. Introduction to Chemistry I
Units: 5
Prerequisite: Completion of MATH A with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Advisory: Eligibility for ENGL C1000; completion of CHEM A with grade of "C" or better or equivalent; completion of MATH D with grade of "C" or better or equivalent
Hours: 126 (72 lecture, 54 laboratory)
Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture, and forestry programs (Inorganic Chemistry). An introduction to the fundamental principles of general inorganic chemistry through related lecture and laboratory exercises. (C-ID CHEM 101) (CSU, UC-with unit limitation)

CHEM 0002B. Introduction to Chemistry II
Units: 5
Prerequisite: Completion of CHEM 2A with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 126 (72 lecture, 54 laboratory)
Designed to meet the requirements for certain nursing, dental hygiene, physical therapy, agriculture, and forestry programs (Organic and Biochemistry). A study of the major classes of organic compounds, including nomenclature structure, properties, and isomerism. Emphasizes the chemistry and metabolism of carbohydrates, lipids, and proteins, including nucleo-protein and enzymes through related lecture and laboratory exercises. (C-ID CHEM 102) (CSU, UC-with unit limitation)

CHEM 0002X. Problem Solving for Chemistry 2A
Unit: 1
Prerequisite: Completion of MATH A with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 2A
Advisory: Eligibility for ENGL C1000; completion of CHEM A with grade of "C" or better or equivalent; completion of MATH G with grade of "C" or better or equivalent
Hours: 18 lecture
Optional problem solving course to accompany CHEM 2A. Students use critical thinking and problem solving strategies to solve chemistry problems in topics that include atomic structure, the mole concept, gas laws, stoichiometry, redox, acid-base theory, equilibrium, nuclear chemistry, and chemical bonding. (CSU)

CHEM 0002Y. Problem Solving for Chemistry 2B
Unit: 1
Prerequisite: Completion of CHEM 2A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 2B
Advisory: Eligibility for ENGL C1000
Hours: 18 lecture
Optional problem solving course to accompany CHEM 2B. Students use critical thinking and problem solving strategies to solve organic and biochemistry problems. Both lecture and discussion groups utilized. (CSU)

CHEM 0003A. General Chemistry I - Part 1
Units: 3
Prerequisite: Completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 3X
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
The first semester of a two-semester course in general chemistry consisting of that material normally included in one semester of CHEM 1A. Topics covered include the mole concept, chemical nomenclature, gas laws, and stoichiometry. This sequence fulfills the prerequisite for CHEM 1B. Students enrolling in CHEM 1A after having taken CHEM 3A will lose credit for CHEM 3A. (combined with CHEM 3B, C-ID CHEM 110) (combined with CHEM 3B and 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0003B. General Chemistry I - Part 2
Units: 3
Prerequisite: Completion of CHEM 3A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 3Y
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 90 (36 lecture, 54 laboratory)
The second semester of a two-semester course in general chemistry consisting of that material normally included in one semester of CHEM 1A. Topics include atomic structure, states of matter, solutions, and chemical bonding. This sequence fulfills the prerequisite for CHEM 1B. (combined with CHEM 3A, C-ID CHEM 110) (combined with CHEM 3A and 1B, C-ID CHEM 120S) (CSU, UC-with unit limitation)

CHEM 0003X. Problem Solving for Chemistry 3A
Units: 2
Prerequisite: Completion of MATH D or MATH G with grade of "C" or better, or placement by matriculation assessment process, or equivalent
Corequisite: Concurrent enrollment in CHEM 3A
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 36 lecture
Problem solving course to accompany CHEM 3A. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include the mole concept, chemical nomenclature, gas laws, and stoichiometry. (pass/no pass grading) (not transferable)

CHEM 0003Y. Problem Solving for Chemistry 3B
Units: 2
Prerequisite: Completion of CHEM 3A with grade of "C" or better
Corequisite: Concurrent enrollment in CHEM 3B
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 36 lecture
Problem solving course to accompany CHEM 3B. Students use critical thinking and problem solving strategies to solve general chemistry problems in topics that include atomic structure, chemical bonding, states of matter, and solutions. (pass/no pass grading) (not transferable)

CHEM 0005. Chemistry - Quantitative Analysis
Units: 4
Prerequisite: Completion of CHEM 1B with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 144 (36 lecture, 108 laboratory)
Theory and techniques of quantitative chemical measurement, including gravimetric, volumetric, and introductory instrumental analysis. Required for all chemistry, chemical engineering, medicine, dentistry, veterinary medicine, and related majors. (CSU, UC)

CHEM 0012A. Organic Chemistry I
Units: 5
Prerequisite: Completion of CHEM 1B with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
An extensive course in the chemistry of the compounds of carbon, which emphasizes structure, kinetics, thermodynamics, spectroscopy, and synthesis. The laboratory provides direct experience with the reaction, synthesis, purification, identification, and characterization (IR, GC, TLC, bp, mp, chemical tests) of organic compounds. Discussions about the emerging field of "Green Chemistry" and performance of Green Chemistry experiments in the laboratory. Required for majors in chemistry as well as many other related fields. (C-ID CHEM 150; and, combined with CHEM 12B, C-ID CHEM 160S) (CSU, UC)

CHEM 0012B. Organic Chemistry II
Units: 5
Prerequisite: Completion of CHEM 12A with grade of "C" or better
Advisory: Eligibility for ENGL C1000 strongly recommended
Hours: 162 (54 lecture, 108 laboratory)
Focuses on carbon based molecules and emphasizes structure, kinetics, thermodynamics, spectroscopy, and synthesis. Includes the emerging field of "Green Chemistry." Required for majors in Chemistry as well as many other related fields. (combined with CHEM 12A, C-ID CHEM 160S) (CSU, UC)

CHEM 0012X. Problem Solving for Chemistry 12A
Unit: 1
Corequisite: Concurrent enrollment in CHEM 12A
Hours: 18 lecture
Optional problem solving course to accompany CHEM 12A. Students use critical thinking and problem solving strategies to solve organic chemistry problems in topics that include nomenclature, alkane, alkene, alcohols, stereochemistry, spectroscopy, and Newman projections. (CSU)

CHEM 0012Y. Problem Solving for Chemistry 12B
Unit: 1
Corequisite: Concurrent enrollment in CHEM 12B
Hours: 18 lecture
Optional problem solving course to accompany CHEM 12B. Students use critical thinking and problem solving strategies to solve organic chemistry problems in topics that include nomenclature, alkynes, benzene, esters, amides, and amines. (CSU)

CHEM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

CHEM 0095. Internship in Chemistry
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

CHEM 0140. Survey of Chemistry and Physics
Units: 4
Also known as PHYS 140
Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 108 (54 lecture, 54 laboratory)
A conceptual introduction to the basic principles of physics and chemistry including matter, physical and chemical properties, forces and motion, energy, electromagnetism, electromagnetic waves, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors. (C-ID CHEM/PHYS 140) (CSU, UC)

Communication Studies (COMM)

COMM 0002. Argumentation and Rhetorical Criticism
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Argumentation and rhetorical criticism focuses on methods of critical inquiry, advocacy, and argumentative writing through the written and oral traditions. Students will refine and strengthen critical thinking skills necessary to identify, analyze, and evaluate communicative messages and arguments in a variety of forms. Theoretical components will introduce students to perspectives toward argument analysis to develop and use basic criteria for identifying and evaluating effective, ethical arguments. Significant emphasis will be placed on the sophistication of writing assignments surrounding argument and rhetoric producing at least 5,000 words for the semester. (C-ID COMM 120) (CSU, UC)

COMM 0003. Small Group Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The study of small group communication through the analysis and evaluation of communication theories. Includes planning and completing small group projects and presentations to implement problem-solving methods, conflict management, and decision-making to develop effective communication skills. (C-ID COMM 140) (CSU, UC)

COMM 0005. Communication Foundations
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to communication theories, concepts, and effective communication skills for a variety of social contexts. Includes practical experiences and skill building in public speaking, interpersonal, intercultural, and small group settings. (C-ID COMM 115) (CSU, UC-with unit limitation)

COMM 0006. Performance of Diverse Literatures
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to performance studies and issues of diversity and social justice with works that bring these issues to light. Through the analysis, selection, and interpretation of genres such as poetry, oral history, prose, humor, and drama, students deepen their appreciation for literature, gain skill in performance, and insight into the role of voice, identity, and social justice in spoken arts. Focus on critiquing performance in context with key concepts from the field. Includes analysis of literature for themes, script writing, delivery, and the co-production of solo and/or group performance events. (C-ID COMM 170) (CSU, UC)

COMM 0007. Intercultural Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Explores communication between people of different cultural communities both globally and locally. Intercultural communication is grounded within historical, political, organizational and interpersonal contexts that shape our individual interactions. This course focuses on intercultural communication theories and research to help students analyze identity, perception, conflict, and how power, privilege and oppression are perpetuated in societies. (C-ID COMM 150) (CSU, UC)

COMM 0008. Interpersonal Communication
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The study of interpersonal communication through an examination of theory and research findings. This course investigates the application of the principles of verbal and nonverbal transactions, key interpersonal concepts, and the dynamics of communication in personal and professional contexts. (C-ID COMM 130) (CSU, UC)

COMM 0010. Communication Theory, Methods, and Practice
Units: 3
Advisory: Eligibility for ENGL C1000; completion with grade of "C" or better or concurrent enrollment in COMM C1000 or 5
Hours: 54 lecture
The study of human communication through hands-on research methods that serve as specializations to the field of Communication Studies. This course explores human communication patterns through an examination of critical approaches, key concepts, and founding theories. Students engage in original inquiry, research and data gathering, analysis and discovery. (C-ID COMM 180) (CSU, UC)

COMM 0012. Visual Communication
Units: 3
Also known as AAD 12
Hours: 54 lecture
Study of visual communication including design principles, aesthetics, visual perception, non-verbal messages, relationship to verbal communication, audience analysis, mass media and persuasion. Historical overview of visual media as well as current trends and technology. (C-ID JOUR 170) (CSU, UC)

COMM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

COMM 0031A. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as AAD 79 and PHOT 79
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

COMM 0070. Mass Communication: Media and Society
Units: 3
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Focuses on the intersections of mass communication, media and society. This course examines the evolution of mass communication through modern media (modalities, content and trends), as well as the role of journalism in matters of ethics, perception, representation, and globalization. (C-ID JOUR 100) (CSU, UC)

COMM 0071. Newswriting and Reporting Techniques
Units: 3
Hours: 54 lecture
An introduction to gathering, synthesizing/organizing and writing news in journalistic style across multiple platforms. Students will report and write based on their original interviews, research, and storytelling to produce news stories. Experiences may include covering speeches, meetings and other events, writing under deadline and use of diversity and AP Style guides. Includes the role of journalists in democracies and relevant legal and ethical issues in reporting news for communities. (C-ID JOUR 110) (CSU, UC)

COMM 0072. Multimedia Reporting
Units: 3
Formerly known as COMM 30
Hours: 54 lecture
Introduction to multimedia storytelling with a journalism emphasis. Techniques explored include use of audio, video, photos, animation, and text to convey interactive news and feature stories through the Internet and other electronic media. The course also integrates skills in digital research, critical thinking, and synthesis. (C-ID JOUR 120) (CSU)

COMM 0073. Introduction to Public Relations
Units: 3
Advisory: Completion of COMM 71 with grade of "C" or better
Hours: 54 lecture
The principles and processes of the public relations (PR) field to include: goal setting, research and planning, designing messages for various media outlets, using social media for promotion, developing campaigns, communicating effectively in a crisis, analyzing publics, evaluating, and delivering public presentations as key spokespersons for organizations. Examine public relations techniques for business, public and nonprofit organizations. (CSU)

COMM 0078. Media Production I
Units: 3
Hours: 72 (36 lecture, 36 activity)
Media practicum that produces journalistic stories for campus, community, and online audiences. Students take on professional roles as various kinds of journalists and editors to report and publish work on digital platforms. Includes weekly news assignments, publication, and distribution through social media and audience engagement strategies. Practical experience in layout, writing or scripting news and feature stories, integrating original visuals and audio, multimedia journalism, and emerging mass communication technologies. Student-produced with student leadership. (C-ID JOUR 130) (CSU)

COMM 0079. Media Production II
Units: 3
Prerequisite: Completion of COMM 78 with grade of "C" or better
Advisory: Completion with grade of "C" or better, or concurrent enrollment in ENGL 1B or ENGL C1001
Hours: 72 (36 lecture, 36 activity)
Intermediate student journalism and media practicum that regularly produces a news or non-fiction feature product by and for students and distributed to a campus or community audience. Students take on leadership roles as editors and produce stories. Includes weekly news assignments that provide practical experience in design/layout, visual, online, multimedia journalism, emerging technologies, and performance. May include a variety of student media across multiple platforms, including print, broadcast, podcast, radio, and online. Student produced with student leadership. (C-ID JOUR 131) (CSU)

COMM 0095. Internship in Communication Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

COMM C1000. Introduction to Public Speaking
Units: 3
Formerly known as COMM 1
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
In this course, students learn and apply foundational rhetorical theories and techniques of public speaking in a multicultural democratic society. Students discover, develop, and critically analyze ideas in public discourse through research, reasoning, organization, composition, rhetorical sensitivity, creative expression, delivery to a live audience and evaluation of various types of speeches, including informative and persuasive speeches. (C-ID COMM 110) (CSU, UC-with unit limitation)

Computer Science (CSCI)

CSCI 0010. Introduction to Computing
Units: 3
Advisory: Completion of MATH A with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Survey of computer science technologies and methods. Introduction to computer hardware and software, structured programming, operating system concepts, communications and social impacts of computer technology. Explore current and emerging topics such as robotics, computer security and artificial intelligence. (CSU, UC)

CSCI 0012. Programming Concepts and Methodology I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces the discipline of computer science using a high level language utilizing programming and practical hands-on problem solving. (C-ID COMP 122) (CSU, UC)

CSCI 0013. Programming Concepts and Methodology II
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms. (C-ID COMP 132) (CSU, UC)

CSCI 0014. Data Structures
Units: 3
Prerequisite: Completion of CSCI 66 with grade of "C" or better; and completion with grade of "C" or better, or concurrent enrollment in CSCI 26
Advisory: Completion of CSCI 13 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
A comprehensive introduction of data structures for computer science. Topics include: lists, stacks, trees, hash tables, and heaps. Associated algorithms are also covered: searching, sorting, traversal, path finding, spanning tree, and network flow. C++ is used as the implementation language. (CSU, UC)

CSCI 0026. Discrete Structures for Computer Science
Units: 3
Prerequisite: Completion of CSCI 12 and MATH 12 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the essential discrete structures used in Computer Science, with emphasis on their applications. Includes elementary formal logic and set theory, elementary combinatorics, recursive programming and algorithm analysis, Boolean algebra, digital logic, combinatorial circuits, graph theory, circuit design and minimization, and computer arithmetic. (C-ID COMP 152) (CSU, UC)

CSCI 0027. Visual Basic .NET Programming I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to methods and techniques of Visual Basic .NET programming. Includes coverage of user interface design, variables, decisions, menus, functions, object-oriented programming, looping, arrays, and printing. Designed to bring students up to the necessary skill and knowledge level for an intermediate-level programming course. (CSU)

CSCI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

CSCI 0039. Introduction to Computer Architecture and Assembly Language
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Assembly language programming techniques and introductory computer architecture concepts. Topics include addressing modes; pseudo operations; stack processing; subroutine linkage; arithmetic and logical operations; input and output; digital logic. Programs are designed, coded, tested, and debugged. (C-ID COMP 142) (CSU, UC)

CSCI 0046. System Programming with C
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion of CSCI 50 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the C language and system programming on a Unix-like operating system. Topics include the standard C library, memory allocation, file I/O, permissions, system calls, networking, and process management. Development in a Unix environment will cover editors, shell scripting, makefiles, source code control, and debugging. (CSU, UC)

CSCI 0050. Introduction to Unix/Linux
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
An introduction to the Unix and Linux operating systems with an emphasis on system programming. Topics include the filesystem, permissions, regular expressions, processes, networking, basic system administration, and shell scripting. Extensive hands-on experience using the command line interface. (CSU, UC)

CSCI 0052. Introduction to SQL
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Survey of SQL (Structured Query Language). Includes database models, database design, table and view definition, transaction and data manipulation, queries and reports, data integrity, stored procedures, triggers, recovery and security. Hands-on experience using a popular SQL database. (CSU)

CSCI 0054. Visual Basic .NET Programming II
Units: 3
Prerequisite: Completion of CSCI 27 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Intermediate Visual Basic .NET programming. Includes coverage of multitier applications, database applications, databases using related tables, database updates, using Web forms, Web forms database and updates, XML Web services, and writing database reports using Crystal Reports. (CSU, UC)

CSCI 0062. Web Programming I
Units: 3
Prerequisite: Completion of CSCI 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to methods and techniques of Web programming. Includes coverage of HyperText Markup Language (HTML), Cascading Style Sheets (CSS), and Extensible HyperText Markup Language (XHTML). Designed to bring students up to the necessary skill and knowledge level for an intermediate Web programming course. (CSU)

CSCI 0066. Object-Oriented Programming Using C++
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion of CSCI 46 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
An introduction to the concepts of object-oriented programming and the application of the C++ language. Extensive programming practice using C++ as the vehicle toward modular, reusable object-oriented code. (CSU, UC)

CSCI 0076A. Game Programming
Units: 3
Prerequisite: Completion of CSCI 12 with grade of "C" or better
Advisory: Completion with grade of "C" or better or concurrent enrollment in CSCI 13
Hours: 72 (54 lecture, 18 laboratory)
Explore the algorithms, data structure, and techniques used to program computer video games. Emphasis on arcade-style video games (new and classic) written in Java. Topics include 2D animation, sprites, interaction, music, and sound. Underlying issues include graphical user interface programming, multi-threaded applications, realtime programming, use of sophisticated APIs, and societal impacts of computer gaming. (CSU, UC)

CSCI 0095. Internship in Computer Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Deaf Studies (DFST)

DFST 0001. American Sign Language I
Units: 4
Hours: 72 lecture
Introduction to the fundamental principles of American Sign Language (ASL). Preparation for visual/gestural communication including basic information relating to Deaf culture, intensive work on comprehension skills and grammatical structures. (CSU, UC)

DFST 0002. American Sign Language II
Units: 4
Prerequisite: Completion of DFST 1 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language I (ASL I). Designed for students who wish to enhance their proficiency in ASL usage and stresses continued development of basic conversational skills with emphasis on vocabulary and expressive skills. (CSU, UC)

DFST 0003. American Sign Language III
Units: 4
Prerequisite: Completion of DFST 2 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language II (ASL II). Shifts from comprehension to production of ASL. Further study of vocabulary and grammatical patterns. Continues to develop ASL competencies in numerous conversational settings. Brings ASL fluency to a point of self-generated ASL for the purpose of furthering language use in ASL. (CSU, UC)

DFST 0004. American Sign Language IV
Units: 4
Prerequisite: Completion of DFST 3 with grade of "C" or better
Hours: 72 lecture
Continuation of American Sign Language III. Advanced study of ASL grammar. Further development and refinements of ASL skills and fluency. Intensive work on expressive and receptive skills. Further study of Deaf cultural issues. (CSU, UC)

DFST 0010. Introduction to Deaf Studies
Units: 3
Hours: 54 lecture
Introduces topics central to the Deaf and Deaf community, including audiology, interpreting, education, culture, history, linguistics, sociology, and psychology. Designed to introduce basic information regarding the American Deaf experience in the United States: Deaf Community, Deaf Culture and American Sign Language. (CSU, UC)

DFST 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

DFST 0095. Internship in Deaf Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Earth Science (ESCI)

ESCI 0001. Physical Geology
Units: 3
Formerly known as GEOL 1
Prerequisite: Eligibility for ENGL C1000
Advisory: Concurrent enrollment in ESCI 1L
Hours: 54 lecture
Dynamic nature of earth's geologic processes. Earthquakes, volcanoes, mountain building, landslides, rocks, minerals, fossils, erosion, glaciation, deserts, shorelines, groundwater, and plate tectonics. (C-ID GEOL 100) (CSU, UC)

ESCI 0001L. Physical Geology Laboratory
Unit: 1
Formerly known as GEOL 1L
Prerequisite: Completion of or concurrent enrollment in ESCI 1
Hours: 54 laboratory
Minerals, rocks, fossils, aerial photos, topographic and geologic maps. Field trip(s) may be required during regular lab time. (C-ID GEOL 100L) (CSU, UC)

ESCI 0002. California Geology
Units: 3
Formerly known as GEOL 2
Advisory: Completion of ESCI 10 with grade of "C" or better
Hours: 54 lecture
An introduction to the geology of California, including tectonic processes, geologic structures, physiographic provinces, local rocks and minerals, landforms, natural resources, geologic history, and natural hazards in the state. (C-ID GEOL 200) (CSU, UC)

ESCI 0003. Historical Geology
Units: 3
Formerly known as GEOL 3
Corequisite: Concurrent enrollment in ESCI 3L
Advisory: Completion of ESCI 1 and 1L with grades of "C" or better
Hours: 54 lecture
An introduction to Earth's history and the life it supports. Includes geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin, and the processes that have influenced paleogeography during the past 4.6 billion years. Designed for Geology majors. (C-ID GEOL 110) (CSU, UC)

ESCI 0003L. Historical Geology Laboratory
Unit: 1
Formerly known as GEOL 3L
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESCI 3
Advisory: Completion of ESCI 1 and ESCI 1L
Hours: 54 laboratory
Hands-on learning in the topics of Earth history. Includes geologic dating, fossils, plate tectonics, minerals and rocks, biological evolution, the planet's origin, and the processes that have influenced paleogeography and life history during the past 4.6 billion years. (C-ID GEOL 110L) (CSU, UC)

ESCI 0007. Energy, Environment, and Climate
Units: 3
Also known as ESS 7
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the nature of energy and the environmental impact of its societal use in the context of Earth's record of changing climate. Explores current global climate change due to post-1750 greenhouse gas emissions and strategies for mitigation and adaptation to changing climate predictions, emphasizing future alternative energy sources. Designed for students majoring in areas related to the environmental sciences and/or those interested in developing a substantiated understanding of the role played by citizens in ensuring a healthy environment for future generations. (CSU, UC)

ESCI 0010. Introduction to Earth Science
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to concepts of geology, oceanography, meteorology, and astronomy for science or non-science majors. (C-ID GEOL 120) (CSU, UC)

ESCI 0010L. Introduction to Earth Science Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESCI 10
Hours: 54 laboratory
Exploration of the solid Earth, its atmosphere, hydrosphere, and place in the solar system. Learning through investigation and systematic laboratory procedures, focused on the physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather and climate. Field trip(s) may be required during regular lab time. (C-ID GEOL 120L) (CSU, UC)

ESCI 0015. Introduction to Oceanography
Units: 3
Advisory: Eligibility for ENGL C1000 or equivalent
Hours: 54 lecture
Physical, chemical, and biological aspects of our ocean environment with emphasis on geologic processes. (CSU, UC)

ESCI 0015L. Introduction to Oceanography Laboratory
Unit: 1
Prerequisite: Completion of or concurrent enrollment in ESCI 15
Hours: 54 laboratory
Exploration of the ocean environment, including physical, chemical and biological aspects. Learning through investigation and systematic laboratory procedures. (CSU, UC)

ESCI 0016G. Field Paleontology and Ancient Environments
Units: 1-2
Also known as BIOL 16G
Hours: 30 (12 lecture, 18 laboratory) per unit
Investigations into the ecology of environments in the geologic past through field work at fossil sites. Comparisons and contrasts made between ancient (fossil) communities and the current (living) communities of selected study sites. Differences and similarities between the plants and animals used as evidence to reconstruct ancient ecological communities. This class requires the ability to hike moderate distances on uneven ground. This class will involve camping in either developed campsites or in undeveloped wilderness areas. (CSU)

ESCI 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ESCI 0050. Geology of National Parks and Monuments
Units: 3
Formerly known as GEOL 50
Hours: 54 lecture
Investigation of geology and geologic history in the formation of North American national parks and monuments including the Grand Canyon, Bryce, Zion, and Yosemite. (CSU, UC)

ESCI 0054A. Sierra Nevada and Western Basin and Range Provinces
Units: 0.5
Formerly known as GEOL 51A
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Sierra Nevada and Western Basin and Range Provinces. Sites along I-80 and old highway 40 are examined. (CSU)

ESCI 0054B. Great Valley and Coast Range Provinces
Units: 0.5
Formerly known as GEOL 51B
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Great Valley and the Coast Range Provinces. Sites along I-80, the Russian River, the Pacific Coast, and the San Andreas Fault are examined. (CSU)

ESCI 0054C. Great Valley, Coast Ranges, and Sutter Buttes
Units: 0.5
Formerly known as GEOL 51C
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Great Valley, the Coast Ranges, and the Sutter Buttes. Sites west from Roseville through Woodland and Capay Valley to Clear Lake, the Central Sacramento Valley, and the Sutter Buttes are examined. (CSU)

ESCI 0054D. Western Sierra Nevada and the Mother Lode
Units: 0.5
Formerly known as GEOL 51D
Hours: 9 lecture
Field lecture course designed to teach students the geology of portions of the Western Sierra Nevada and the Mother Lode. Sites along Highway 49 are examined. Entrance and transportation fees may be required. (CSU)

ESCI 0054E. Major Rock Units of the Northern Sierra
Units: 0.5
Formerly known as GEOL 51E
Hours: 9 lecture
Field lecture course designed to teach students the geology of major rock units of the Northern Sierra Nevada. Moderate day hike is involved. Entrance fees may be required. (CSU)

ESCI 0055A. Weekend Field Geology - Eastern Sierra
Unit: 1
Hours: 18 lecture
Weekend field trip to the eastern Sierra Nevada. A 1 hour and 50 minute pre-session will be held prior to the trip. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0055B. Weekend Field Geology - Yosemite
Unit: 1
Hours: 18 lecture
Weekend field trip to Yosemite covering the origin, evolution, and geology of Yosemite National Park and surrounding areas. A 1 hour and 50 minute pre-session will be held prior to the trip. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0055C. Weekend Field Geology - Point Reyes
Unit: 1
Hours: 18 lecture
Exploration of the natural history of the Point Reyes area, emphasizing its geologic history and geomorphology. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0055D. Weekend Field Geology - Southern Coast Range
Unit: 1
Hours: 18 lecture
Exploration of the natural history of southern Coast Ranges. May include national parks (eg. Carrizo Plain, Pinnacles) and selected areas of the San Andreas Fault. Some hiking required. Camping and/or park entrance fees may be required. A 1 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0055E. Weekend Geology and Volcanoes of Northeastern California
Unit: 1
Hours: 18 lecture
Exploration of the natural history of the volcanoes and mountains of northeastern California. May include national parks (eg. Lassen, Lava Beds). Some hiking required. Camping and/or park entrance fees may be required. A 1 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0055F. Weekend Field Geology
Unit: 1
Formerly known as GEOL 52F
Hours: 18 lecture
Weekend (sometimes including Friday) field trips to selected locations of geologic interest in California and bordering areas. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0056A. Field Geology of Western North America - Death Valley
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
One-week field experience to Death Valley and eastern Sierra Nevada. Emphasis placed on the geologic history of the area. We will be seeing rocks spanning over 1 billion years of earth history. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0056B. Field Geology of Western North America - Geology of Utah
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field course covering the National Parks of northern Arizona, and Utah including, but not limited to: Zion, Bryce, Canyonlands, Grand Canyon, Monument Valley, Arches, and Capitol Reef. Entrance and transportation fees may be required. (CSU)

ESCI 0056C. Field Geology of Western North America - Western Deserts
Units: 2
Hours: 54 (27 lecture, 27 laboratory)
Field experience covering areas of the Southern California desert, including Carrizo Plain, Barstow, Joshua Tree National Park, Salton Sea, and Anza Borrego State Park. Emphasis will be placed on the geologic history of the region. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance, and transportation fees may be required. (CSU)

ESCI 0056D. Field Geology in the Sierra Nevada
Units: 2
Hours: 36 lecture
Exploration of the natural history of the Sierra Nevada. May include national parks (eg. Yosemite, Sequoia, Kings Canyon, Mono Lake). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0056E. Geology of the Cascade Volcanoes
Units: 2
Hours: 36 lecture
Exploration of the natural history of the volcanoes and mountains of the Cascade Range of western North America. May include national parks (eg. Lassen, Lava Beds, Crater Lake, Mount Saint Helens, Rainier). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0056F. Field Geology of Western North America
Units: 2
Formerly known as GEOL 53F
Hours: 54 (27 lecture, 27 laboratory)
One-week field experience to selected areas of geologic interest. Emphasis placed on the geologic history of the many parks and monuments of the west. A three-hour pre-session prior to the trip is required. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

ESCI 0056G. Coastal Geology
Units: 2
Hours: 36 lecture
Exploration of the natural history of the western American coast. May include national parks (eg. Pfeiffer, Point Reyes, Redwoods). Some hiking required. Camping and/or park entrance fees may be required. A 2 hour and 50 minute classroom pre-session is required. (CSU)

ESCI 0095. Internship in Earth Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Economics (ECON)

ECON 0001A. Principles of Macroeconomics
Units: 3
Prerequisite: Completion of two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Introductory course focusing on aggregate economic analysis. Topics include: market systems, aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics, and economic growth. (C-ID ECON 202) (CSU, UC)

ECON 0001B. Principles of Microeconomics
Units: 3
Prerequisite: Completion of two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Introductory course focusing on choices of individual economic decision-makers. Topics include scarcity, specialization and trade, market equilibrium, elasticity, production and cost theory, market structures, factor markets, and market failure. (C-ID ECON 201) (CSU, UC)

ECON 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Education (EDU)

EDU 0007. Tutoring Elementary Students in Reading
Units: 3
Prerequisite: Eligibility for ENGL 11 or completion of ENGL C1000 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
An opportunity to learn and practice basic methods of tutoring elementary school children in reading. Combines lecture/discussion with field experience doing extensive tutoring at local elementary school. Negative TB test and fingerprint clearance required. Satisfies one of the two required field experience courses for the CSUS Liberal Studies Program. (CSU)

EDU 0010. Introduction to Elementary Education with Field Experience
Units: 3
Advisory: Completion of HDEV 1 with grade of "C" or better; eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Introduction to the concepts and issues related to teaching diverse learners in contemporary K-12 schools. Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards. In addition to class time, requires a minimum of 45 hours of structured field work in public school elementary classroom that represent California's diverse student population. Fulfills one of the early field experiences for the CSUS Liberal Studies major. Negative TB test and fingerprint screening required. (C-ID EDUC 200) (CSU, UC)

EDU 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

EDU 0095. Internship in Education
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Engineering (ENGR)

ENGR 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ENGR 0095. Internship in Engineering
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

ENGR 0101. Engineering Seminar
Unit: 1
Formerly known as ENGR 150
Hours: 18 lecture
Exploration of the engineering profession, focusing on branches of engineering and relationships between them, spectrum of work functions, professionalism and ethics. Includes orientation to Sierra College engineering program, evaluation of engineering as a personal career choice and participation in engineering activities. (CSU, UC)

ENGR 0110. Introduction to Engineering Design
Units: 3
Hours: 54 lecture
Explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. Explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. Presents an introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics. Develops communication skills pertinent to the engineering profession. Introduces the fundamentals of engineering design, problem solving, planning, prototyping and some fabrication. (C-ID ENGR 110) (CSU, UC)

ENGR 0130. Statics
Units: 3
Formerly known as ENGR 35
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 54 lecture
A first course in engineering mechanics: properties of forces, moments, couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses, and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia. Optional additional topics include fluid statics, cables, Mohr's circle and virtual work. (C-ID ENGR 130) (CSU, UC)

ENGR 0137. Manufacturing Processes
Units: 3
Formerly known as ENGR 37
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Application of multiple fabrication techniques including tools and materials required for the manufacture of a mechanical assembly. Introduction to design and documentation of a final product. Manufacturing processes in the areas of forming, joining, material removal, casting, welding, assembly and prototyping which includes hands on use of manufacturing equipment. Each student fabricates a final project based on principles of manufacturing. (CSU, UC)

ENGR 0140B. Materials Science and Engineering
Units: 4
Formerly known as ENGR 45
Prerequisite: Completion of PHYS 205 and 205L with grades of "C" or better; and completion of CHEM 1A with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Presents the internal structures and resulting behaviors of materials used in engineering applications, including metals, ceramics, polymers, composites, and semiconductors. The emphasis is upon developing the ability both to select appropriate materials to meet engineering design criteria and to understand the effects of heat, stress, imperfections, and chemical environments upon material properties and performance. Laboratories provide opportunities to directly observe the structures and behaviors discussed in the course, to operate testing equipment, to analyze experimental data, and to prepare reports. (C-ID ENGR 140B) (CSU, UC)

ENGR 0151. Engineering Graphics
Units: 4
Formerly known as ENGR 22A and ENGR 22B
Prerequisite: Completion of MATH 27 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Covers the principles of engineering drawings in visually communicating engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills; orthographic projections; mechanical dimensioning and tolerancing practices; and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skills. The use of CAD software is an integral part of the course. (C-ID ENGR 150) (CSU, UC)

ENGR 0180. Engineering Surveying
Units: 4
Formerly known as ENGR 10
Prerequisite: Completion of MATH 27 with grade of "C" or better
Advisory: Completion with grade of "C" or better or concurrent enrollment in ENGR 151
Hours: 108 (54 lecture, 54 laboratory)
Applies theory and principles of plane surveying: office computations and design; operation of surveying field equipment; and production of engineering plans/maps. Topics include distances, angles, and directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques; and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS. (C-ID ENGR 180) (CSU, UC)

ENGR 0220. Programming and Problem Solving in Engineering
Units: 4
Prerequisite: Completion of MATH 30 and PHYS 205 and 205L with grades of "C" or better
Advisory: PHYS 205 may be taken concurrently
Hours: 108 (54 lecture, 54 laboratory)
Utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. (C-ID ENGR 220) (CSU, UC)

ENGR 0230. Dynamics
Units: 3
Prerequisite: Completion of ENGR 130 with grade of "C" or better
Advisory: Completion of ENGR 151 with grade of "C" or better
Hours: 54 lecture
Fundamentals of kinematics and kinetics of particles and rigid bodies. Topics include kinematics of particle motion; Newton's second law, work-energy and momentum methods; kinematics of planar motions of rigid bodies; work-energy and momentum principles for rigid body motion; Introduction to mechanical vibrations (optional). (C-ID ENGR 230) (CSU, UC)

ENGR 0260. Electric Circuits
Units: 3
Formerly known as ENGR 17
Prerequisite: Completion of PHYS 210 and PHYS 210L with grades of "C" or better; and completion with grade of "C" or better or concurrent enrollment in MATH 33
Hours: 54 lecture
An introduction to the analysis of electrical circuits. Use of analytical techniques based on the application of circuit laws and network theorems. Analysis of DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. Natural and forced responses of first and second order RLC circuits; the use of phasors; AC power calculations; power transfer; and energy concepts. (C-ID ENGR 260) (CSU, UC)

ENGR 0260L. Electric Circuits Laboratory
Unit: 1
Formerly known as ENGR 17L
Prerequisite: Completion of PHYS 210 and 210L with grades of "C" or better
Corequisite: Concurrent enrollment in ENGR 260
Hours: 54 laboratory
An introduction to the construction and measurement of electrical circuits. Basic use of electrical test and measurement instruments including multimeters, oscilloscopes, power supplies, and function generators. Use of circuit simulation software. Interpretation of measured and simulated data based on principles of circuit analysis for DC, transient, and sinusoidal steady-state (AC) conditions. Elementary circuit design. Practical considerations such as component value tolerance and non-ideal aspects of laboratory instruments. Construction and measurement of basic operational amplifier circuits. (C-ID ENGR 260 L) (CSU, UC)

English (ENGL)

ENGL 0000N. Introduction to College Writing
Units: 4
Prerequisite: Placement by matriculation assessment process or completion of ENGL 802 with grade of "Pass"
Hours: 72 lecture
Emphasis on the development and integration of thinking, reading, organizing, and writing skills, as required for successful execution of college level composition. Prepares students for ENGL C1000. Students enrolling in ENGL N after having taken ENGL A and/or ENGL 50 will lose credit for ENGL A and/or ENGL 50. (not transferable)

ENGL 0000S. English C1000 Support

Units: 2

Corequisite: Concurrent enrollment in ENGL C1000

Hours: 36 lecture

This class supports students who are concurrently enrolled in ENGL C1000, emphasizing the development and integration of critical thinking, reading, organizing, and writing skills as required for successful execution of college level composition. (not transferable) (pass/no pass grading)

ENGL 0001B. Critical Thinking and Writing about Literature

Units: 3

Prerequisite: Completion of ENGL C1000 with grade of "C" or better

Hours: 54 lecture

Develops critical thinking, reading, and writing skills applicable to the analysis of prose, poetry, drama, and criticism from diverse cultural sources and perspectives. Emphasis on the techniques and principles of effective written argument. 6,500 words of formal writing and some research required. (C-ID ENGL 120) (CSU, UC)

ENGL 0002. Structure of English

Units: 3

Prerequisite: Completion of ENGL C1000 with grade of "C" or better

Hours: 54 lecture

Study of structure of English grammar, both descriptive and prescriptive. Introduction to terminology and structure of traditional grammar; analysis of standard rules for agreement, punctuation, pronoun reference, etc.; introduction to varied methods of language acquisition among culturally diverse populations. For students who plan to teach or who are particularly interested in grammar as it relates to writing. Intended to meet CSU requirement for Liberal Studies major. (CSU, UC)

ENGL 0011. Analytical and Critical Thinking in Reading

Units: 3

Prerequisite: Placement by matriculation assessment process OR completion of ENGL N with grade of "C" or better

Advisory: Eligibility for ENGL C1000

Hours: 54 lecture

Designed to teach critical thinking and critical examination of texts and other printed material. Emphasizes principles of critical thinking, logic and fallacies, reasoning strategies, author's purpose and bias, research evaluation, propaganda, advertising, and reading for academic purpose. Includes instruction in analyzing digital texts. (CSU)

ENGL 0012. Writing in the Workplace

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Principles and practices of workplace writing. Includes organizing, writing, and revising clear, readable documents for the workplace, such as letters, memos, emails, summaries, reports, job application documents, instructions, proposals, and business graphics. (CSU)

ENGL 0016. Introduction to LGBTIQ Literature

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Survey course consisting of an introduction to and critical analysis of selected LGBTIQ (Lesbian, Gay, Bisexual, Transgender, Intersex, Queer) texts over a range of historical periods and genres, including essay, poetry, autobiography, short fiction, novel, and drama. Significant coverage of and emphasis on the cultural and historical contexts that shaped the production of LGBTIQ literature. (CSU, UC)

ENGL 0017. Introduction to Shakespeare and Popular Culture

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Presents Shakespeare's plays as works of popular culture that have been and continue to be reinvented in a range of artistic forms. This course will involve reading, viewing, discussing, and writing about selected plays of Shakespeare in correlation with contemporary texts. Includes discussion and analysis of the original historical context, contemporary critical views and interpretations, and adaptations of Shakespeare's original texts. (CSU, UC)

ENGL 0018. Creative Writing (Non-Fiction)

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Composition of non-fiction prose, with non-fiction reading and analysis assignments drawn from the following genres: autobiography and memoir, philosophical/contemplative reflections, travel writing, nature writing and political/social commentary. Includes discussion and criticism, in workshop mode, of original student writing. (CSU, UC)

ENGL 0019. Introduction to Creative Writing

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Composition of imaginative writing, with reading assignments of literary models in poetry, fiction, and drama. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student poems, fiction, and plays. (C-ID ENGL 200) (CSU, UC-with unit limitation)

ENGL 0020. Creative Writing (Poetry)

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Writing poetry, with reading assignments of literary models in classical, modern, and contemporary poetry. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student poems. (CSU, UC)

ENGL 0021. Creative Writing (Fiction)

Units: 3

Prerequisite: Eligibility for ENGL C1000

Hours: 54 lecture

Writing fiction, with reading assignments of literary models in short story and/or novel. Includes analysis of the models as well as discussion and criticism, in a workshop mode, of original student prose. (CSU, UC)

ENGL 0022. Creative Publication

Units: 3

Advisory: Completion of ENGL C1000 with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

This course provides technique and experience in producing the annual college literature and arts magazine, Sierra Journal. Students will select and edit manuscripts of various genres (poetry, drama, creative non-fiction, fiction), communicate with authors, submit final proofs for publication, and market the magazine. (CSU)

ENGL 0024. Introduction to Literary Criticism and Critical Concepts
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the issues, concepts, and contexts central to literary interpretation, with particular concentration on the relationships of aesthetics, culture, history, politics, issues of race, gender, and class, to conceptions of literary meaning and developments in literary form. Includes surveys and history of major approaches to literary criticism and applications of these approaches to literary analysis. (CSU, UC)

ENGL 0027. Literature by Women
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of women's literature, including novels/novellas, the short story, poetry, drama, and essays. Within the literature, which spans time, culture, and genre, we will explore patterns and themes involving women's personal, psychological, political, economic, intellectual, social, and cultural lives. (CSU, UC)

ENGL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ENGL 0029. Introduction to Drama as Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to drama as literature emphasizing the critical analysis of individual plays; the analysis and exploration of the social, historical, and critical contexts of the writing and performance of dramatic literature; and exploration and analysis of the changing nature of its performance and reception. Class explores significant works of drama from a variety of cultures and historical periods. Intended for both English and Drama majors and non-majors. (CSU, UC)

ENGL 0030A. American Literature - Beginnings through Civil War
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of major authors, themes and genres of American literature from its beginnings through the Civil War. Students may begin with either 30A or 30B. (C-ID ENGL 130) (CSU, UC)

ENGL 0030B. American Literature - Civil War to the Present
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of major authors, themes and genres of American literature from the Civil War to the present. Students may begin with either 30A or 30B. (C-ID ENGL 135) (CSU, UC)

ENGL 0032. Introduction to Poetry
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Develops a critical appreciation of poetry as genre through study of selected poets and historical periods; examines poetic structures, styles, themes, and contexts. Students read representative works in English as well as selected works in translation. (CSU, UC)

ENGL 0033. Introduction to Shakespeare (The Drama)
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Reading and discussion of selected plays of Shakespeare; includes discussion of the historical context and contemporary critical views. (CSU, UC)

ENGL 0034. Introduction to the Novel
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Reading, discussion, and critical analysis of selected novels from the eighteenth century to present. Includes discussion of the historical context and contemporary critical views. (CSU, UC)

ENGL 0035. Introduction to the Short Story
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Critical appreciation of the short story. Intensive reading of a representative selection of American, British, and translated short stories. (CSU, UC)

ENGL 0037. American Film Masterpieces
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of the motion picture as art and literature. Emphasis on American films. (CSU, UC-with unit limitation)

ENGL 0038. International Film Masterpieces
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of the motion picture as art and literature. Emphasis on International films. (CSU, UC-with unit limitation)

ENGL 0040. The Filmed Novel
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Intended to increase students' knowledge of and appreciation for the genres of the novel and the film while developing an understanding of the challenges of adapting one art form into another. Serves as an introduction to the history and terminology of these art forms and provides the basic knowledge necessary to analyze them. Covers the choices made by the screenwriters and directors as they sought to overcome the problems posed by transforming the novel into a movie. (CSU, UC)

ENGL 0042. The Documentary Film
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Development of a critical appreciation of modern documentary film across a variety of subject matter: sports, advertising, politics, music, art, biography, foreign affairs, business, science, and history. (CSU, UC)

ENGL 0044. Children's Literature
Units: 3
Also known as HDEV 44
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Examination of high quality children's literature, both classic and contemporary, including criteria for selection, uses in child development and education, and practices in presentation and analysis. It includes the discussion of the history of children's literature and current issues such as censorship, literacy, multiculturalism, and diversity. This course is intended for prospective and current teachers, preschool aides, early child education (ECE) majors, librarians, parents, and students interested in the field of literature for children ages 0-13. (C-ID ENGL 180) (CSU, UC)

ENGL 0045. Young Adult Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
An examination of high quality literary works written for for young adults, including discussion of literary form, the criteria for selection, practice in presentation and analysis, and aesthetic appreciation in young readers. Includes the discussion of the history of young adult literature and current issues such as censorship, literacy, multiculturalism, and diversity. May include representative writers such as Shakespeare, Dickens, Twain, and Tolkien as well as contemporary, diverse writers such as Angelou, Lowry, Rowling, Salinger, and Zusak. (CSU, UC)

ENGL 0046A. English Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of English literature from the Anglo-Saxon period through the mid 18th century. Study of selected major authors and texts of each period as well as significant or representative minor authors and texts. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, socioeconomic, and cultural contexts of the literature. Students may begin with either 46A or 46B. (C-ID ENGL 160) (CSU, UC)

ENGL 0046B. English Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of British, British Empire, and Commonwealth authors from the Romantic Movement through the late 20th to early 21st century. Includes works of principal Romantic, Victorian, and 20th century poets, novelists, playwrights, and/or essayists, as well as selected works of significant and representative minor authors. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, socioeconomic, and cultural contexts of the literature. Students may begin with either 46A or 46B. (C-ID ENGL 165) (CSU, UC)

ENGL 0047A. World Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of world literature in translation from the ancient world through the 16th Century. Includes representative works from major world literary cultures and eras; explores traditions where appropriate. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, and cultural contexts of the literature. Includes cross-cultural analysis and exploration of cross-cultural influences in literary culture. Students may begin with either 47A or 47B. (C-ID ENGL 140) (CSU, UC)

ENGL 0047B. World Literature
Units: 3
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of world literature in translation from the seventeenth through twenty-first centuries. Includes representative works from major world literary cultures and eras, including post-colonial developments; explores literary traditions in defined cultural contexts. Incorporates analysis of the development of literary forms, developments and transformations of central themes, and developments in the historical, and cultural contexts of the literature. Includes cross-cultural analysis and exploration of cross-cultural influences in literary culture. Students may begin with either 47A or 47B. (C-ID ENGL 145) (CSU, UC)

ENGL 0048. Literature of Science Fiction
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major themes and types of science fiction literature, its primary artists, and its literary and historical relevance. (CSU, UC)

ENGL 0050L. Mastering College Academic Literacy Laboratory
Unit: 1
Prerequisite: Completion of ENGL 570 and 570L with grades of "C" or better or placement by matriculation assessment process; AND completion with grade of "C" or better, or concurrent enrollment in, ENGL 50
Hours: 54 laboratory
Application of inferential comprehension and research strategies to a variety of college level texts. (not transferable)

ENGL 0802. Foundations of Academic Literacy
Units: 0
Prerequisite: Placement by matriculation assessment process
Hours: 80 activity
Course prepares students to begin English N, an integrated developmental college composition and reading course. Reading comprehension, composition, grammar, and sentence development skills are addressed. (pass/no pass grading) (noncredit)

ENGL 0812. Poetry Writing and Experiment
Units: 0
Hours: 8 to 18 lecture as scheduled
Designed for older adults interested in exploring the writing of poetry. Exercises and experiments with language in writing poetry. Uses primarily American poets (from Walt Whitman to Susan Howe and from George Oppen to Emily Dickinson) to determine how writers use image, form, sound and rhythm effectively. Develops a language with which to speak about the craft of poetry. May be repeated. (noncredit)

ENGL 0814. Selected Topics in Creative Writing
Units: 0
Hours: 8 to 54 lecture as scheduled
Course for older adults interested in exploring creative writing. Exercises in creative writing, drawing ideas from personal observation and experience. Overcome obstacles of how and where to begin writing, what to write about, and how to shape ideas into a variety of formats - creative paragraphs, short stories, nonfiction and fiction. Experiment with various styles, structures and forms of writing. Focus and topics will vary with each offering. May be repeated. (noncredit)

ENGL 0815. Selected Topics in Literature
Units: 0
Hours: 8 to 54 lecture as scheduled
Course for older adults interested in exploring literature. Study of selected styles of work and/or authors in literature. Examination of theme and impact of work on society. Includes discussion of the influences of the geographic, economic, cultural, and physical setting at the time of writing. May be repeated. (noncredit)

ENGL C1000. Academic Reading and Writing
Units: 4
Formerly known as ENGL 1A
Prerequisite: Placement as determined by the college's multiple measures assessment process
Hours: 72 lecture
In this course, students receive instruction in academic reading and writing, including writing processes, effective use of language, analytical thinking, and the foundations of academic research. (C-ID ENGL 100) (CSU, UC)

ENGL C1001. Critical Thinking and Writing
Units: 3
Formerly known as ENGL 1C
Prerequisite: College-level composition (ENGL C1000/C-ID ENGL 100) or equivalent
Hours: 54 lecture
In this course, students receive instruction in critical thinking for purposes of constructing, evaluating, and composing arguments in a variety of rhetorical forms, using primarily non-fiction texts, refining writing skills and research strategies developed in ENGL C1000 College Reading and Writing (C-ID ENGL 100) or similar first-year college writing course. (C-ID ENGL 105) (CSU, UC)

English as a Second Language (ESL)

ESL 0024P. Accent Reduction and Pronunciation for ESL Students
Unit: 1
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 530 level or completion of ESL 520O with grade of "C" or better or placement at or above the ESL 830 level or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and/or ESL 25L or ESL 840L
Hours: 18 lecture
Focuses on accent reduction for non-native speakers of English. Offers intensive practice and refinement of pronunciation skills that enable students to sound more like native-speakers of English. (not transferable)

ESL 0025C. Advanced Reading and Writing
Units: 6
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 25C level or completion of ESL 530C with grade of "C" or better or placement at or above the 840 level or completion of ESL 830C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25G or ESL 842G and ESL 25L or ESL 840L
Hours: 108 lecture
Language acquisition of college-level vocabulary, reading, writing, and research for advanced English language learners. Students engage in academic coursework with critical expository composition and literary analysis of cultural perspectives including contributions and social experiences of under-represented ethnic or racial groups. (CSU, UC)

ESL 0025G. Academic Grammar and Editing
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530C or ESL 532G with grade of "C" or better or completion of ESL 830C or ESL 832G with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25L or ESL 840L
Hours: 54 lecture
Multi-skill course emphasizing academic grammar and editing skills for non-native speakers. Focus on verb tense usage and sequence, clauses, passive voice for academic writing, conditionals, editing strategies, and application of grammar appropriate to writing purpose. Open to students eligible for ESL 25 level. (CSU)

ESL 0025L. Academic Listening and Speaking
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530O with grade of "C" or better or completion of ESL 830O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25G or ESL 842G
Hours: 54 lecture
Language acquisition of college-level listening, speaking, vocabulary, and research for advanced-level English language learners. Students engage in academic coursework with small-group discussion, presentations, lectures, videos, and podcasts, including an analysis of cultural perspectives and contributions and social experiences of under-represented ethnic or racial groups. (CSU)

ESL 0510C. Novice-High Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510O or ESL 810O and ESL 512G or ESL 812G
Hours: 108 lecture
Novice-High integrated skills course for non-native speakers of English focusing on written production for college, vocational and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused paragraphs and level-appropriate vocabulary, grammar and success strategies. (not degree applicable)

ESL 0510O. Novice-High Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510C or 810C and ESL 522G or ESL 822G
Hours: 54 lecture
Novice-high course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0512G. Basic Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Hours: 54 lecture
Basic grammar skills for non-native English speakers with focus on sentence-level usage. (not degree applicable)

ESL 0512P. Basic Pronunciation for ESL Students
Unit: 1
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510 or 810 level courses
Hours: 18 lecture
Focuses on the learning of basic pronunciation skills for non-native speakers of English. It offers intensive practice of commonly occurring vowel and consonant sounds and combinations of sounds with an introduction to intonation and stress using novice-high and low-intermediate vocabulary level. (not degree applicable)

ESL 0512T. ESL through Basic Computer Technology
Unit: 1
Prerequisite: Eligibility for ESL 510 or 520 levels
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 510 and 520 levels. (not degree applicable)

ESL 0520C. Intermediate Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510C with grade of "C" or better or completion of ESL 810C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520O or ESL 820O and ESL 522G or ESL 822G
Hours: 108 lecture
Intermediate level integrated skills course for non-native speakers of English focusing on written production for college, vocational, and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused multi-paragraph writing and level-appropriate vocabulary, grammar, and success strategies. (not degree applicable)

ESL 0520O. Intermediate Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510O with grade of "C" or better or completion of ESL 810O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520C or 820C and ESL 522G or ESL 822G
Hours: 54 lecture
Intermediate course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0522F. Intermediate ESL through Film
Unit: 1
Prerequisite: Eligibility for ESL 520 or 530 levels
Hours: 27 (9 lecture, 18 activity)
Intermediate speaking and listening skills for non-native speakers of English through film. Popular American films enhance cultural competency and build fluency in the exchange of ideas in small groups. Includes viewing of films and film excerpts, lectures, group discussions, oral presentations, and reading and writing summaries and reviews. (not degree applicable)

ESL 0522G. Intermediate Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 512G with grade of "C" or better or ESL 812G with grade of "Pass" or completion of ESL 510C with grade of "C" or better or ESL 810C with grade of "Pass"
Hours: 54 lecture
Intermediate grammar skills for non-native English speakers with focus on verbs, modifiers, word order, and sentence structure. (not degree applicable)

ESL 0522T. Intermediate ESL through Computer Technology
Unit: 1
Prerequisite: Eligibility for ESL 520 or 530 levels
Advisory: Completion of ESL 512T with grade of "C" or better recommended
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 520 and 530 levels. (not degree applicable)

ESL 0530C. Intermediate-High Integrated Writing and Reading
Units: 6
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520C with grade of "C" or better or completion of ESL 820C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and ESL 532G or ESL 832G
Hours: 108 lecture
Intermediate-high level integrated skills course for non-native speakers of English focusing on written production for college and career. Emphasis on comprehension and analysis of level-appropriate authentic materials with genre-based and essay style writing, vocabulary, grammar, and success strategies. (not degree applicable)

ESL 0530O. Intermediate-High Integrated Listening, Speaking and Vocabulary
Units: 3
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520O with grade of "C" or better or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530C or 830C and ESL 522G or 822G
Hours: 54 lecture
Intermediate-high course for non-native speakers of English focusing on oral production. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (not degree applicable)

ESL 0532G. Intermediate-High Grammar
Units: 3
Prerequisite: Placement by matriculation assessment process or completion of ESL 520C or 522G with grade of "C" or better or ESL 820C or 822G with grade of "Pass"
Hours: 54 lecture
Intermediate-high grammar skills for non-native English speakers with focus on error correction, verbs, clauses, and complex sentence structure. (not degree applicable)

ESL 0800. Introduction to College ESL
Units: 0
Prerequisite: Placement by ESL matriculation assessment process
Hours: 108 lecture
Novice level course of integrated listening, speaking, reading, vocabulary, grammar and writing skills to prepare students for novice-high, credit ESL courses. Emphasis on common situations and functions of college, vocation, and community. Activities include introduction to college resources and basic use of computers. Consistent attendance is required. (pass/no pass grading) (noncredit)

ESL 0810C. Novice-High Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510O or ESL 810O and ESL 512G or ESL 812G
Hours: 108 lecture
Novice-High integrated skills course for non-native speakers of English focusing on written production for college, vocational and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused paragraphs and level-appropriate vocabulary and grammar and success strategies. (pass/no pass grading) (noncredit)

ESL 0810O. Novice-High Integrated Listening, Speaking and Vocabulary
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 510C or 810C and ESL 522G or ESL 822G
Hours: 54 lecture
Novice-high course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0812G. Basic Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Hours: 54 lecture
Basic grammar skills for non-native English speakers with focus on sentence-level usage. (pass/no pass grading) (noncredit)

ESL 0812P. Basic Pronunciation for ESL Students
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 800 with grade of "Pass"
Advisory: Concurrent enrollment in ESL 810 or 510 level courses
Hours: 18 lecture
Focuses on the learning of basic pronunciation skills for non-native speakers of English. It offers intensive practice of commonly occurring vowel and consonant sounds and combinations of sounds with an introduction to intonation and stress using novice-high and low-intermediate vocabulary level. (pass/no pass grading) (noncredit)

ESL 0812T. ESL Through Basic Computer Technology
Units: 0
Prerequisite: Eligibility for ESL 810 or 820 levels
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 810 and 820 levels. (pass/no pass grading) (noncredit)

ESL 0812V. Vocational ESL for Construction and Trades
Units: 0
Prerequisite: Eligibility for ESL 810 or ESL 510 level
Hours: 36 lecture
High-beginner/low-intermediate level course of listening, speaking, reading, vocabulary, grammar and writing skills to prepare students for the workplace and/or Sierra College CTE construction program. Emphasis on trade-specific terminology and communication skills. (pass/no pass grading) (noncredit)

ESL 0820C. Intermediate Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510C with grade of "C" or better or completion of ESL 810C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 520O or ESL 820O and ESL 522G or ESL 822G
Hours: 108 lecture
Intermediate level integrated skills course for non-native speakers of English focusing on written production for college, vocational, and community success. Emphasis on comprehension and analysis of level-appropriate authentic materials and written responses using focused multi-paragraph writing and level-appropriate vocabulary and grammar and success strategies. (pass/no pass grading) (noncredit)

ESL 0820O. Intermediate Integrated Listening, Speaking and Vocabulary
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510O with grade of "C" or better or completion of ESL 810O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 820C or 520C and ESL 822G or ESL 522G
Hours: 54 lecture
Intermediate course for non-native speakers. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0822F. Intermediate ESL through Film
Units: 0
Prerequisite: Eligibility for ESL 820 or 830 levels
Hours: 27 (9 lecture, 18 activity)
Intermediate speaking and listening skills for non-native speakers of English through film. Popular American films enhance cultural competency and build fluency in the exchange of ideas in small groups. Includes viewing of films and film excerpts, lectures, group discussions, oral presentations, and reading and writing summaries and reviews. (pass/no pass grading) (noncredit)

ESL 0822G. Intermediate Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 512G with grade of "C" or better or ESL 812G with grade of "Pass" or completion of ESL 510C with grade of "C" or better or ESL 810C with grade of "Pass"
Hours: 54 lecture
Intermediate grammar skills for non-native English speakers with focus on verbs, modifiers, word order, and sentence structure. (pass/no pass grading) (noncredit)

ESL 0822T. Intermediate ESL through Computer Technology
Units: 0
Prerequisite: Eligibility for ESL 820 or 830 levels
Advisory: Completion of ESL 812T with grade of "C" or better recommended
Hours: 27 (9 lecture, 18 activity)
Introduction for non-native speakers of English to basic computer vocabulary, keyboarding, mySierra basics, Learning Management System (LMS) basics, Microsoft Word basics and use of ESL software and internet sites. Supports coursework at the ESL 820 and 830 levels. (pass/no pass grading) (noncredit)

ESL 0830C. Intermediate-High Integrated Writing and Reading
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520C with grade of "C" or better or completion of ESL 820C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and ESL 532G or ESL 832G
Hours: 108 lecture
Intermediate-high level integrated skills course for non-native speakers of English focusing on written production for college and career. Emphasis on comprehension and analysis of level-appropriate authentic materials with genre-based and essay style writing, vocabulary, grammar, and success strategies. (pass/no pass grading) (noncredit)

ESL 0830O. Intermediate-High Integrated Listening, Speaking, and Vocabulary
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520O with grade of "C" or better or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530C or 830C and ESL 522G or 822G
Hours: 54 lecture
Intermediate-high course for non-native speakers of English focusing on oral production. Course topics for college, community, and career may include authentic academic lectures, videos and podcasts to develop oral language production and listening comprehension using level-appropriate vocabulary and grammar. (pass/no pass grading) (noncredit)

ESL 0832G. Intermediate-High Grammar
Units: 0
Prerequisite: Placement by matriculation assessment process or completion of ESL 520C or 522G with grade of "C" or better or ESL 820C or 822G with grade of "Pass"
Hours: 54 lecture
Intermediate-high grammar skills for non-native English speakers with focus on error correction, verbs, clauses, and complex sentence structure. (pass/no pass grading) (noncredit)

ESL 0840C. Advanced Reading and Writing
Units: 0
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 25C level or completion of ESL 530C with grade of "C" or better or placement at or above the 840 level or completion of ESL 830C with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25G or ESL 842G and ESL 25L or ESL 840L
Hours: 108 lecture
Language acquisition of college-level vocabulary, reading, writing, and research for advanced English language learners. Students engage in academic coursework with critical expository composition and literary analysis of cultural perspectives including contributions and social experiences of under-represented ethnic or racial groups. (pass/no pass grading) (noncredit)

ESL 0840L. Academic Listening and Speaking
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530O with grade of "C" or better or completion of ESL 830O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25G or ESL 842G
Hours: 54 lecture
Language acquisition of college-level listening, speaking, vocabulary, and research for advanced-level English language learners. Students engage in academic coursework with small-group discussion, presentations, lectures, videos, and podcasts, including an analysis of cultural perspectives and contributions and social experiences of under-represented ethnic or racial groups. (pass/no pass grading) (noncredit)

ESL 0842G. Academic Grammar and Editing
Units: 0
Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530C or ESL 532G with grade of "C" or better or completion of ESL 830C or ESL 832G with grade of "Pass"
Advisory: Concurrent enrollment in ESL 25C or ESL 840C and ESL 25L or ESL 840L
Hours: 54 lecture
Multi-skill course emphasizing academic grammar and editing skills for non-native speakers. Focus on verb tense usage and sequence, clauses, passive voice for academic writing, conditionals, editing strategies, and application of grammar appropriate to writing purpose. Open to students eligible for ESL 25 level/840 level. (pass/no pass grading) (noncredit)

ESL 0842P. Accent Reduction and Pronunciation for ESL Students
Units: 0
Prerequisite: Placement by ESL matriculation assessment process at or above the ESL 530 level or completion of ESL 520O with grade of "C" or better or placement at or above the ESL 830 level or completion of ESL 820O with grade of "Pass"
Advisory: Concurrent enrollment in ESL 530O or ESL 830O and/or ESL 25L or ESL 840L
Hours: 18 lecture
Focuses on accent reduction for non-native speakers of English. Offers intensive practice and refinement of pronunciation skills that enable students improve their understanding and communication with Native Speakers while reducing their own accents to sound more like native-speakers of English. (pass/no pass grading) (noncredit)

ESL 0850S. ESL Support for ENGL C1000 Academic Reading and Writing
Units: 0
Corequisite: Concurrent enrollment in ENGL C1000
Hours: 36 lecture
Prepares and supports Multi-lingual and English Learners (ELLs) enrolled in ENGL C1000. Students will develop their grammar and academic reading writing skills through activities, self-editing, plus reading and short writing assignments, focusing on issues specific to ELLs. (noncredit)

Environmental Sciences and Sustainability (ESS)

ESS 0001. Introduction to Environmental Sciences and Sustainability
Units: 3
Formerly known as INT 1
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A study of the natural world and how it is influenced by human activity. This course will introduce and analyze the scientific basis of major environmental issues and evaluate potential solutions within the context of diverse human cultures and societies. Topics include principles of physical and biological systems, biogeochemical cycles, global climate, natural laws, land, air and water resources, consumption and waste, pollution, toxicology, human population growth, and sustainability on a local, regional and global level. (C-ID ENVS 100) (CSU, UC)

ESS 0001L. Introduction to Environmental Science Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESS 1
Hours: 54 laboratory
Hands-on, inquiry-based learning in topics associated with environmental science. Laboratory and field studies including applications of physical science principles, ecological studies, and exposure to sustainability issues related to human society. Promotes critical thinking, problem solving, scientific and environmental literacy. May include field trip(s) during or in lieu of lab time. (CSU, UC)

ESS 0006. The Sierra Nevada
Units: 3
Formerly known as INT 6
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Integrated study of the Sierra Nevada including its physical attributes, geological characteristics, origin and development, flora and fauna, water resources, historical and economic significance, and influences on literature, art, and culture. Includes contemporary environmental, economic, and management issues in the Sierra. (CSU, UC)

ESS 0006F. Sierra Nevada Field Trip
Units: 0.5-1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ESS 6
Hours: 18 lecture per unit
Field lecture course designed to be taken concurrently with ESS 6. A field study of selected sites in the Sierra Nevada ecoregion, comparing their biological inventory, ecological relationships, physical environments, and sensitivity to human interactions and activities. Moderate hiking and/or camping may be involved. (CSU)

ESS 0007. Energy, Environment, and Climate
Units: 3
Also known as ESCI 7
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the nature of energy and the environmental impact of its societal use in the context of Earth's record of changing climate. Explores current global climate change due to post-1750 greenhouse gas emissions and strategies for mitigation and adaptation to changing climate predictions, emphasizing future alternative energy sources. Designed for students majoring in areas related to the environmental sciences and/or those interested in developing a substantiated understanding of the role played by citizens in ensuring a healthy environment for future generations. (CSU, UC)

ESS 0008. California Water
Units: 4
Hours: 108 (54 lecture, 54 laboratory)
Interdisciplinary examination of California water ecosystems, infrastructure, uses, and impacts. Students will learn about: hydrology; aquatic ecosystems including rivers, lakes, wetlands, estuaries, and marine environments; water infrastructure including dams, levees, aqueducts, and wastewater treatment facilities; groundwater recharge, withdrawal, use and impacts; the role of water in agricultural, urban, environmental and political systems; water quality; water storage and transfers; water policy; and conflicts arising from water scarcity. May include field trips during or in lieu of lab time. Students may be required to provide their own transportation. (CSU, UC)

ESS 0010. Conservation of Natural Resources
Units: 3
Formerly known as AGRI 190 and NATR 10
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Use and protection of natural resources, including soil, water, forest, mineral, plant, and animal life. Ecological principles, history of the conservation movement, modern problems in resource use, and the citizen's role in conservation. (CSU, UC)

ESS 0013. Environmental Regulations
Unit: 1
Formerly known as BIOL 13A
Advisory: Completion of BIOL/ESS 14, ESS 1 or ESS 10 with grade of "C" or better
Hours: 18 lecture
Survey of major California environmental regulations and relevant federal regulations. Designed using case study analyses to explore environmental laws applicable to water, land and air resources. (CSU)

ESS 0014. Natural History, Ecology and Conservation
Units: 4
Also known as BIOL 14
Advisory: Eligibility for ENGL C1000
Hours: 108 (54 lecture, 54 laboratory)
Introduction to the study of biology and ecology of organisms and ecosystems of the world, with an emphasis on California. Special focus on significance of functioning ecosystems and human influence on the environment. May include field trips during or in lieu of lab time. (CSU, UC)

ESS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ESS 0095. Internship in Environmental Sciences and Sustainability
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Ethnic Studies (ETHN)

ETHN 0011. Introduction to Ethnic Studies
Units: 3
Formerly known as SSCI 10
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of the four core Ethnic populations of Asian Americans, Chicanx/Latinx Americans, African Americans, and Native Americans/American Indians within the United States. (CSU, UC)

ETHN 0014. Introduction to Asian American Studies
Units: 3
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse, institutional, cultural, and historical issues and experiences relating to the past and present life circumstances and intersectional identities of Asian Americans and Pacific Islanders. (CSU, UC)

ETHN 0020. Introduction to African American Studies
Units: 3
Formerly known as SSCI 20
Hours: 54 lecture
Introduces students to Ethnic Studies and the diverse institutional, cultural, and historical issues relating to the present life circumstances of African Americans in the United States. The course is interdisciplinary in nature and presents an overview of the cultural, economic, historic, social, and political issues in the life of African Americans in the United States centering African American voices. It will expose students of all ethnic backgrounds to the issues pertinent to the experience of African Americans. (CSU, UC)

ETHN 0028. Independent Study
Units: 1-3
Formerly known as SSCI 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

ETHN 0030. Introduction to Chicana/o Studies
Units: 3
Formerly known as SSCI 16
Hours: 54 lecture
Introductory study of the Mexican American/Latino experience in the United States. Offers an interdisciplinary approach to the examination of art, literature, film, language, ethnomusicology, culinary culture, folklore, religion, gender and immigration. Examines race, ethnicity and culture in the Chicano/Latino community and the creation of Ethnic Studies programs in the United States. (CSU, UC)

ETHN 0045. Federal Indian Law and Policy
Units: 3
Formerly known as SSCI 45
Hours: 54 lecture
In-depth study of American Indian cultures and the impact of state and federal laws pertaining to tribal sovereignty and self-governance. Covers the effects of and resistance to colonization and cultural appropriation upon American Indian cultures and religions. Students gain a practical understanding of the legal, political and cultural challenges faced by American Indian tribal nations in our own region and across the country. (CSU, UC)

ETHN 0050. Ethnic Images in Film
Units: 3
Formerly known as SSCI 50
Hours: 54 lecture
Interdisciplinary approach to study the intersections of ethnic culture, race, socio-economic class, and gender in the United States through the medium of film. Examines film content for representation and accuracy, the multiple dimensions of media stereotypes, and the authenticity of diverse ethnic experiences with particular emphasis on gender, race and class. Note: not a course in film making or film criticism. (CSU, UC)

ETHN 0053. Introduction to Native American Studies
Units: 3
Formerly known as SSCI 41
Hours: 54 lecture
Survey of the cultures of Native American/American Indians within the United States focusing on the social, religious, economic, and artistic nature of various native groups. Examination of the antiquity, distribution, and linguistic history of native cultures. Addresses the contemporary status of native cultural traditions taking into account social change and adaptation. Emphasis on geographic, cultural, historical, and botanical environment of local native cultures. An optional field trip may be included. (CSU, UC)

Fashion (FASH)

FASH 0001. Introduction to Fashion
Units: 3
Hours: 54 lecture
Exploration of the diversity and complexities of the fashion business. Career opportunities and qualifications are studied. The relationship between the fashion world and the public, including sources of fashion, influences on fashion, and fashion prediction and promotion, are addressed. (CSU)

FASH 0002. Fashion Analysis and Selection
Units: 3
Hours: 54 lecture
Consideration of the psychological, sociological, and physical factors which have an impact on dress. Elements and principles of design as they relate to clothing and appearance. Consumer issues related to the selection and use of clothing. (CSU)

FASH 0003. Textiles
Units: 3
Hours: 54 lecture
Introduction to the study of characteristics and uses of natural and synthetic fibers and fabrics. Emphasizes evaluation and selection of textile products. (CSU, UC)

FASH 0004A. Basic Clothing Construction
Units: 3
Hours: 108 (27 lecture, 81 laboratory)
Techniques of garment construction; use of commercial patterns, pattern alterations, and fitting techniques; comparison of construction techniques and costs between ready-to-wear and custom-made clothing; the social and psychological aspects of clothing selection, with emphasis on basic design principles. (CSU)

FASH 0004B. Intermediate Clothing Construction
Units: 3
Prerequisite: Completion of FASH 4A with grade of "C" or better
Hours: 108 (27 lecture, 81 laboratory)
Intermediate and advanced techniques of garment construction. Designed for individuals with basic knowledge of sewing principles. Development and improvement of skills in working with designer patterns; techniques of handling specialty fabrics, including knit fabrics; use of sergers. (CSU)

FASH 0007. Fashion Promotion
Units: 3
Hours: 54 lecture
Emphasis on the role of promotion in the selling and advertising of fashion goods. All avenues of fashion promotion explored and evaluated including: advertising, publicity, special events, fashion show production, direct marketing and target market research. Promotion skills developed through the planning and promotion of special events. (CSU)

FASH 0008. Fashion Illustration
Units: 3
Hours: 108 (36 lecture, 72 laboratory)
Illustration techniques with emphasis on figure proportions used in the fashion industry. Various media used to communicate fashion and apparel details. Illustration software presented with focus on technical drawings. (CSU)

FASH 0012. Fashion History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Fashion and adornment through the ages to the present. Emphasis on the historical flow and how fashion themes are reinterpreted or influence designs in later periods including the present. Provides a basis for understanding and appreciating fashion as well as how the times and environment affect styling, colors, fabric and details. Field trip may be required. (CSU)

FASH 0013. Buying for the Fashion Industry
Units: 3
Hours: 54 lecture
Examines the roles and responsibilities of fashion industry buyers and merchandising managers that must balance the needs of retailers, objectives of vendors, and preferences of consumers. The roles of trend forecasting, inventory analysis and assortment planning are discussed as they relate to the fashion industry. Introduction to domestic and international fashion markets and market weeks. Prepares students for fashion industry careers as vendors, buyers, or retailers of fashion goods and services. (CSU)

FASH 0014. Visual Merchandising
Units: 3
Hours: 72 (36 lecture, 36 activity)
Introduces contemporary display techniques, equipment, and materials for designing three-dimensional product presentations within the retail environment. Emphasis is placed on fashion items and includes the use of mannequins and dress forms. Students complete a window display on campus. Field trips required. (CSU)

FASH 0015. Clothing and Culture
Units: 3
Hours: 54 lecture
Study of clothing and its relationship to culture, society, and the individual. The psychological and sociological influences of dress, the physical aspects of appearance, and the influences of gender, sexuality, ethnicity, and class on the development of personal identity are explored through the study of style in traditional cultures, popular culture and everyday life. (CSU)

FASH 0017. Fashion Retailing
Units: 3
Hours: 54 lecture
Explores store and non-store fashion retailing formats, structure, purpose, as well as the challenges impacting the ways retailers interact with today's consumers. Students gain an understanding of the retail industry from a fashion-oriented perspective. Methods of franchising, licensing, branding, and retail terminology are introduced. Students will also gain an understanding of merchandise planning and management, promotional strategies, brand image, human resource management, store layout, and customer service. (CSU)

FASH 0018. Sustainability in Fashion
Units: 3
Hours: 54 lecture
Exploration of the tenets of sustainability and social change in fashion. Diversity, equity, inclusion, and social justice are analyzed in product development, operations, and promotion of fashion. Fashion brand strategies to decrease the environmental impact of fashion products. Longevity of use, supply chain transparency, regulations, and media coverage all along the fashion process are addressed. (CSU)

FASH 0019. Fashion Entrepreneurship
Units: 3
Hours: 54 lecture
Examines the skills needed to conceive, finance, open, and operate a successful fashion business. It addresses the creation of a small business specific to fashion retail or apparel design and manufacturing. Topics include recognizing and creating business opportunities, as well as marketing and selling techniques. A model business plan is developed by exploring resources necessary to be a successful entrepreneur in the fashion industry. (CSU)

FASH 0020. Mending and Alterations
Units: 3
Prerequisite: Completion of FASH 4A with grade of "C" or better
Hours: 108 (27 lecture, 81 laboratory)
Focuses on developing the skills needed to learn alterations and mending clothes. It includes the study of fit analysis of different types of Ready-To-Wear apparel created in standard sizes and learning to make alterations to the apparel to fit different body types. The course will cover the techniques of mending woven and knit fabrics. (CSU)

FASH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

FASH 0095. Internship in Fashion
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Fire Technology (FIRE)

FIRE 0001. Principles of Fire and Emergency Services
Units: 3
Hours: 54 lecture
Provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. (C-ID FIRE 100X) (CSU-with unit limitation)

FIRE 0003. Fire Behavior and Combustion
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. (C-ID FIRE 140X) (CSU-with unit limitation)

FIRE 0004. Fire Protection Equipment and Systems
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Provides information relating to the features of design and operation of fire alarm systems, water-based suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers in accordance with local, state and national guidelines. (C-ID FIRE 120X) (CSU-with unit limitation)

FIRE 0005. Fire Prevention Technology
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. (C-ID FIRE 110X) (CSU-with unit limitation)

FIRE 0007. Fundamentals of Fire Service Operations
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Fundamentals of fire department organization, management, and resources, and the use of those resources to control various emergencies. Includes safety, operational considerations, evaluation of tactics and strategies with a focus on making behavioral changes for positive outcomes. (CSU-with unit limitation)

FIRE 0008. Building Construction for Fire Protection
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Components of building construction related to firefighter and life safety. Elements of construction and design of structures as key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. (C-ID FIRE 130X) (CSU-with unit limitation)

FIRE 0010. Principles of Fire and Emergency Services Safety and Survival
Units: 3
Hours: 54 lecture
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. (C-ID FIRE 150X) (CSU-with unit limitation)

FIRE 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU-with unit limitation)

FIRE 0050. Basic Wildland Firefighter Training
Units: 3
Hours: 61 (54 lecture, 7 laboratory)
Training in proper techniques to effectively and safely perform as a member of a fire crew in controlling and suppressing wildfire. Includes physics of fire behavior, complexities and inter-relationships of weather, topography, and wildland fuel beds in fire behavior, Incident Management Organization, personal safety, situational awareness and hazard recognition. Meets NWCG S-130, S-190, S-134, L-180 and I-100 requirements. (CSU-with unit limitation)

FIRE 0073. Fire Hydraulics
Units: 3
Hours: 54 lecture
Investigate the principles and characteristics of water and water flow, water supply systems, fire apparatus and pumps, and fire streams. Review of applied mathematics; hydraulic laws; and application of formulas and mental calculation to hydraulics and water supply problems, as applied to the fire service. (CSU-with unit limitation)

FIRE 0074. Fire Apparatus and Equipment
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in FIRE 1
Hours: 54 lecture
Principles and techniques for maintaining and operating fire service pumping and other mobile apparatus. Fire service equipment and apparatus troubleshooting; principles and techniques of preventive maintenance; construction and operation of fire service pumps and pump accessories; basic highway operating techniques for fire apparatus; fire apparatus specifications and testing procedures. (CSU-with unit limitation)

FIRE 0075. Wildland Fire Control
Units: 3
Hours: 54 lecture
Principles and techniques of wildland fire prevention, behavior, control, and suppression. Covers legal areas of wildland fire protection, mutual aid, fire investigating and reporting methods, and ecology factors of wildland and urban interface fires. Complies with S-190, Basic Wildland Fire Behavior certification. (CSU-with unit limitation)

FIRE 0078. Fire Tactics and Strategy
Units: 3
Prerequisite: Completion of FIRE 1 with grade of "C" or better or equivalent as determined by the Fire Technology Program Coordinator
Hours: 54 lecture
Provides the principles of fire control through utilization of manpower, equipment, extinguishing agents, fire command and control procedures. (C-ID FIRE 160X) (CSU)

FIRE 0079. Fire Investigation
Units: 3
Advisory: Completion of FIRE 1 and 8 with grades of "C" or better
Hours: 54 lecture
Introduces the general practices involved in fire investigation. Topics include determining the cause of fires (accidental, suspicious, and incendiary); types of fires; related laws; introduction to incendiary fires; motives for starting fires; recognizing and preserving evidence; interviewing witnesses and suspects; and arrest, detention, and court procedures. (CSU)

FIRE 0080. Introduction to Public Safety Dispatch
Units: 3
Also known as ADMJ 78 and HSCI 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

FIRE 0095. Internship in Fire Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

FIRE 0097. Ethical Leadership in the Classroom
Units: 0.5
Formerly known as FIRE 639
Hours: 9 lecture
An examination of fundamental ethical values of fire service instructors by exploring examples of ethical behavior in the classroom environment. Includes basic concepts, terms and theories of ethical decision making, code of ethics, and concepts in ethical leadership. (C-ID FIRE 251X) (CSU)

FIRE 0098. Fire Technology Career Pathways
Units: 2
Hours: 40 lecture
Career exploration in fire technology. Includes educational planning of available degree programs, labor market research, and the hiring process: development of a resume, background investigations, personal history statements, interview dynamics, and hiring examinations. (not transferable)

FIRE 0099. Introduction to Fire Academy
Unit: 1
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 32 (11 lecture, 21 laboratory)
Designed to prepare students with the basic knowledge and skills necessary to succeed in the Firefighter I Academy. Topics include: ropes and knots, donning and doffing SCBA's, fire hose rolls and loads, physical fitness, fire department duties, responsibilities and conduct. (not transferable)

FIRE 0100. Firefighter Academy
Units: 17
Prerequisite: Completion of FIRE 1 and HSCI 2 with grades of "C" or better, possession of a current Emergency Medical Technician certificate, and submission of a physician's physical verification, including a spirometry test
Corequisite: Concurrent enrollment in FIRE 100A
Advisory: Completion of FIRE 99 with grade of "C" or better
Hours: 580 (181 lecture, 399 laboratory)
Designed for entry level firefighters. Approved by the California State Board of Fire Services and California State Fire Marshal's Office. Fulfills all educational and training requirements for Firefighter I and II. Leads to State and/or National Firefighter I certification and upon completion of experience requirement, certification of Firefighter II. Includes: Structural Firefighting, Wildland Firefighting, Hazardous Materials, Incident command system, Auto Extrication, and Firefighter Survival. Certificate of Completion issued with grade of "C" or better in both FIRE 100 and 100A. Physically demanding program. Materials fee required. (not transferable)

FIRE 0100A. Fire Academy Physical Training
Units: 2.5
Formerly known as KIN 97
Corequisite: Concurrent enrollment in FIRE 100
Hours: 80 (28 lecture, 52 laboratory)
Designed for Firefighter I Academy Trainees, emphasizing lifetime fitness, principles of physical fitness, individual fitness programs, managing body composition, stress indicators and management, nutrition, and development of muscular strength and cardiovascular efficiency. (CSU)

FIRE 0101. Firefighter Certification Testing
Unit: 1
Prerequisite: Completion of FIRE 100 with grade of C or better or, 1) A signed statement by the agency's Fire Chief or designee stating the sponsored student has completed all SFT training requirements and skills sheets for Firefighter-1, or 2) Documentation of approval from the California State Fire Training for a certification retest, or 3) Completion of a Firefighter I academy and applying for certification testing
Hours: 56 (8 lecture, 48 laboratory)
Prepares students to meet the State Fire Training (SFT) requirements for Firefighter I (FFI) and II (FFII) including the capstone knowledge and skills necessary to pass FFI FFII. Upon successful completion, students receive a pass letter from SFT and a FFI and FFII pass certificate from the college. (pass/no pass grading) (not transferable)

FIRE 0102. Firefighter II Training
Units: 4.5
Prerequisite: Certified Firefighter I or equivalent as determined by the Fire Technology Program Coordinator; possession of a current Emergency Medical Technician certificate; and submission of a physician's physical verification, including a spirometry test
Hours: 128 (58 lecture, 70 laboratory)
Provides the skills and knowledge needed for the entry level firefighter to perform his/her duties safely, effectively, and competently. Covers general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, prevention, preparedness and maintenance. (not transferable)

FIRE 0103. Cal Fire Basic Firefighter
Units: 9
Prerequisite: Completion of FIRE 170 with grade of "C" or better, and possess Public Safety First Aid and CPR certification or equivalent as determined by the Program Coordinator
Hours: 219 (139.5 lecture, 79.5 laboratory)
Provides the skills and knowledge needed for the entry-level firefighter to perform his/her duties safely, effectively, and competently. The curriculum is based on CAL FIRE policy, the 2013 edition of NFPA 1001 Standard for Firefighter Professional Qualifications, the 2012 edition of NFPA 1051 Standard for Wildland Firefighter Professional Qualifications, and the 2008 edition of NFPA 472 Standard for Competence of responders to Hazardous Materials/Weapons of Mass Destruction Incidents. (not transferable)

FIRE 0170. Hazardous Materials - Operational Level
Units: 0.5,1
Formerly known as FIRE 41
Hours: 16 lecture for 0.5 unit; 24 lecture for 1 unit
First responder course covering common alarms, roles and responsibilities, legal aspects, exposure and response safety, medical surveillance, recognition and identification, basic chemistry, personal protective equipment, scene management, preincident planning and table-top exercises. Meets federal and state training requirements. (CSU-with unit limitation)

FIRE 0171. Introduction to Wildland Fire Behavior S-190
Units: 0.5
Hours: 9 lecture
Wildland fire behavior factors important for understanding fire spread principles and applying safe and effective suppression techniques. Meets standards prescribed by the National Wildfire Coordinating Group and the CA Incident Command Certification System for S-190 certification. (not transferable)

FIRE 0172. Intermediate Wildland Fire Behavior S-290
Units: 2
Prerequisite: Completion of FIRE 171 with grade of "C" or better or a certified S-190 course as prescribed by the National Wildfire Coordinating Group
Hours: 40 lecture
Aligns with S-290 Intermediate Fire Behavior of the National Wildfire Coordinating Group (NWCG). Provides professional development related to the topic of wildland fire behavior. Provides instruction in the identification and prediction of wildland fire behavior in various fuel types and under varying weather conditions. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Inter-agency Incident Management System. (C-ID FIRE 241X) (not transferable)

FIRE 0173. Hazardous Materials - Incident Commander
Unit: 1
Formerly known as FIRE 202
Prerequisite: Completion of FIRE 241 with grade of "C" or better or a certified Hazardous Materials First Responder Operational course; and I-100 (Basic Incident Command System) or equivalent as determined by the Fire Technology Program Coordinator
Hours: 24 lecture
Provides participants with the capability to assume the role of Incident Commander, as defined in the Occupational Safety and Health Act Hazardous Waste Operations (OSHA HAZWOPR) regulation, during an emergency response to an actual or potential hazardous materials release. (C-ID FIRE 232X) (not transferable)

FIRE 0174. Human Resource Management for Company Officers - CO 2A
Units: 2
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Completion of California State Firefighter II educational requirements
Hours: 40 lecture
Aligns with Company Officer 2A of the Company Officer Program. This course provides information on the use of human resources to accomplish assignments, evaluating member performance, supervising personnel, and integrating health and safety plans, policies, and procedures into daily activities as well as the emergency scene. (C-ID FIRE 200X) (CSU-with unit limitation)

FIRE 0175. General Administrative Functions for Company Officers - CO 2B
Unit: 1
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Advisory: Completion of FIRE 174 with grade of "C" or better
Hours: 24 lecture
Aligns with Company Officer 2B of the Company Officer Program. Provides information on general administrative functions and the implementation of department policies and procedures and addresses conveying the fire department's role, image, and mission to the public. (C-ID FIRE 210X) (CSU-with unit limitation)

FIRE 0176. Fire Inspections and Investigation for Company Officers - CO 2C
Units: 2
Prerequisite: Completion of FIRE 102 with grade of "C" or better or completion of California State Firefighter II educational requirements
Hours: 40 lecture
Aligns with Company Officer 2C of the Company Officer Program. Provides an overview of the information necessary to conduct inspections, identify hazards and address violations, performing a fire investigation to determine preliminary cause and to secure the incident scene and preserve evidence. (C-ID FIRE 220X) (CSU-with unit limitation)

FIRE 0177. All-Risk Command Operations for Company Officers - CO 2D
Unit: 1.5
Prerequisite: Completion of California State Firefighter II educational requirements; completion of FIRE 173 and FIRE 241 with grades of "C" or better
Hours: 40 (24 lecture, 16 laboratory)
Designed for the working firefighter. Provides information on conducting incident size-up; developing and implementing an initial plan of action involving single and multi-unit operations for various types of emergency incidents to mitigate the situation following agency safety procedures; conducting pre-incident planning; and developing and conducting a post-incident analysis. One of a series of courses required for Company Officer certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0178. Wildland Incident Operations for Company Officers - CO 2E
Unit: 1.5
Prerequisite: Completion of California State Firefighter II educational requirements; completion of FIRE 172 and FIRE 177 with grades of "C" or better or provide copies of S-290 (classroom delivery only) and HAZ MAT Incident Commander certifications, or equivalent as determined by the instructor
Hours: 40 (24 lecture, 16 laboratory)
Designed for the working firefighter, this course provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating an incident action plan, and completing incident records and reports. This Company Officer course is one of a series required for Company Officer certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0179. Fire and Emergency Services Instructor 1
Unit: 1.5
Advisory: IS-100.B (Introduction to the Incident Command System) and IS-700.A (FEMA - National Incident Management System)
Hours: 40 (24 lecture, 16 laboratory)
Designed for working firefighters, this course provides the skills and knowledge needed for the entry level professional instructor to perform his or her duties safely, effectively, and competently. The curriculum is based on the 2012 edition of NFPA 1041 Standard for Fire Service Instructor Professional Qualifications. At the end of this course, candidates for Instructor I certification are able to teach and deliver instruction from a prepared lesson plan utilizing instructional aids and evaluation instruments. The Instructor I is also able to adapt a lesson plan and complete the reporting requirements to the local jurisdiction. Course is one of a series required for Company Officer Certification by California State Fire Training. (CSU-with unit limitation)

FIRE 0180. Fire and Emergency Services Instructor 2
Unit: 1.5
Prerequisite: Completion of FIRE 179 with grade of "C" or better
Advisory: IS-100.B (Introduction to the Incident Command System) and IS-700.A (FEMA - National Incident Management System)
Hours: 40 (24 lecture, 16 laboratory)
Designed for those seeking to become fire service instructors and provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. At the end of this course, candidates for Instructor II certification are able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II is also able to analyze resources and formulate a program budget. (CSU-with unit limitation)

FIRE 0181. Fire Investigation 1A, Basic Fire Investigation
Units: 2
Formerly known as FIRE 154
Prerequisite: Completion of FIRE 3 with grade of "C" or better
Hours: 39.5 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on securing the fire scene and determining the origin and cause of the fire. Topics include responsibilities of a fire investigator, securing the fire ground, conducting an exterior and interior survey, analyzing fire patterns, interpreting individual fire patterns, discriminating the effects of explosions, examining and removing fire debris, reconstructing the area of origin, inspecting the performance of building systems. (not transferable)

FIRE 0182. Fire Investigation 1B, Evidence and Documentation
Unit: 1.5
Formerly known as FIRE 155
Prerequisite: Completion of FIRE 181 with grade of "C" or better
Hours: 33.5 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on scene documentation and evidence collection/preservation. Topics include photographing the scene, diagramming the scene, constructing investigative notes, processing evidence and establishing chain of custody, processing victims and fatalities, selecting evidence for analysis, maintaining a chain of custody, preparing a fire investigation report, and disposing of evidence. (not transferable)

FIRE 0183. Fire Investigation 1C, Preparation for Legal Proceedings
Units: 2
Prerequisite: Completion of FIRE 181, 182 and ADMJ 110 with grades of "C" or better
Hours: 40 lecture
Designed for fire investigators and law enforcement officers responsible for conducting fire investigations. This course provides information on legal considerations for a court proceeding. Topics include coordinating expert resources, formulating an opinion, presenting investigative findings, and testifying during legal proceedings. (not transferable)

FIRE 0190. Human Resource Management for Chief Fire Officers - 3A
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 26 lecture
Designed for Company Officers advancing to the Chief Officer classification. Provides basic knowledge of human resource requirements related to the roles and responsibilities of a Chief Fire Officer. Includes developing plans for providing employee accommodation, developing hiring procedures, establishing personnel assignments, describing methods of facilitating and encouraging professional development, developing an ongoing education training program, developing promotion procedures, developing proposals for improving employee benefits, and developing a measurable accident and injury prevention program. (not transferable)

FIRE 0191. Budget and Fiscal Responsibilities for Chief Fire Officers - 3B
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 18 lecture
Provides a basic knowledge of the budgeting requirements related to the roles and responsibilities of a Chief Fire Officer, including developing a budget management system, developing a division or departmental budget, and describing the process for ensuring competitive bidding. (not transferable)

FIRE 0192. General Administrative Functions for Chief Fire Officers - 3C
Unit: 1
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 24 lecture
Provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer, including directing a department record management system, analyzing and interpreting records and data, developing a model plan for continuous organizational improvement, developing a plan to facilitate approval, preparing community awareness programs, and evaluating the inspection program of the authority having jurisdiction (AHJ). (not transferable)

FIRE 0193. Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents
Units: 2
Prerequisite: Meet the educational requirements for Company Officer by one of the following: completion of FIRE 174, 175, 176, 177, 178, and 179 with grades of "C" or better; or completion of Office of the State Fire Marshal Company Officer 2A, 2B, 2C, 2D, 2E, and Instructor I courses; or equivalent as determined by the Fire Technology Program Coordinator
Hours: 40 lecture
Provides a basic knowledge of the emergency service requirements related to the roles and responsibilities of a Chief Fire Officer, including developing a plan for the integration of fire services resources, developing an agency resource contingency plan, evaluating incident facilities, supervising multiple resources, developing and utilizing an incident action plan, obtaining incident information to facilitate transfer of command, developing and conducting a post-incident analysis, and maintaining incident records. This course has been realigned to expanding/extended Type 3 incidents also allowed for dual certification with the NWCG S-300 Extended Attack Incident Commander course, the base course for CICCS certification as an Incident Commander Type 3 (ICT3). (not transferable)

FIRE 0241. I-200: Incident Command System
Units: 0.5
Hours: 12 lecture
Aligns with I-200: Incident Command System of the Federal Emergency Management Agency (FEMS) ICS Program. This course is an introduction to the Incident Command System (ICS) National Training curriculum. Includes principles and features, organization overview, incident facilities, resources, and common responsibilities. ICS 200 certification is the minimum requirement for attending ICS 200 level courses and functioning in a Unit Leader position during an incident. (C-ID FIRE 231X) (not transferable)

FIRE 0242. I-300: Intermediate ICS for Expanding Incidents
Unit: 1
Prerequisite: Completion of FIRE 241 with grade of "C" or better
Hours: 24 lecture
Covers organization and staffing, incident resources management, organizing for incidents or events, incident and event planning and air operations within the Incident Command System national training curriculum. (pass/no pass grading) (not transferable)

FIRE 0243. I-400: Advanced ICS for Complex Incidents
Units: 0.5
Prerequisite: Completion of FIRE 242 with grade of "C" or better
Hours: 16 lecture
Covers command and general staff, unified command, major incident management and area command within the Incident Command System national training curriculum. (pass/no pass grading) (not transferable)

FIRE 0608. Basic Structural Firefighter
Units: 4.5
Hours: 150 (55 lecture, 95 laboratory)
Entry-level course for volunteer firefighters. Topics include fire behavior, safety, personal protective equipment, forcible entry, rescue, ground ladders, hoses, fire streams and nozzles, and fire control principles. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0618. Fire Control 4
Units: 0.5
Prerequisite: Completion of Fire 100 and 170 with grades of "C" or better or equivalent as determined by the Program Coordinator.
Hours: 16 (8 lecture, 8 laboratory)
This course provides the knowledge and skills that prepare a firefighter to extinguish an ignitable liquid fire, control a flammable gas fire, and develop an incident action plan for a pipeline emergency. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0632. Auto Extrication
Units: 0.5
Hours: 24 (9.5 lecture, 14.5 laboratory)
Provides the knowledge and skills to prepare a firefighter to extricate victim(s) from a common passenger vehicle in a safe and effective manner. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0634. Driver Operator 1A
Unit: 1.5
Prerequisite: Hold a valid Class C driver's license
Hours: 40 (23 lecture, 17 activity)
Provides information on fire apparatus, preventative maintenance and driving/operating. Topics include routine tests, inspections, and servicing functions; operate, back, maneuver, and turn a fire apparatus in a variety of conditions; and operate all fixed systems and equipment on a fire apparatus. Students must provide full structural personal protective equipment and fire apparatus for the final two days of class. Fulfills the requirements for a Class C Firefighter Endorsement. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0635. Driver/Operator 1B - Pumping Apparatus Operations
Unit: 1.5
Prerequisite: Completion of FIRE 634 with grade of "C" or better, and completion of Firefighter 1, or equivalent as determined by the Fire Technology Program Coordinator, and hold a valid Class C Firefighter endorsed driver's license
Hours: 40 (18 lecture, 22 activity)
Provides information on pumping apparatus preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions; producing hand, master, and foam fire streams, relay pump operations; and supplying water to fire sprinkler and standpipe systems. Students must provide full structural personal protective equipment and fire apparatus for the final three days of class. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0637. Confined Space Awareness
Units: 0.5
Hours: 9 lecture
Instruction in identifying a permit and non-permit required confined space, the hazards associated with confined spaces, target industries and hazards, state regulations, communications and equipment requirements. This course does not qualify participants to make permit required entries. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0638. Low Angle Rope Rescue Operational
Units: 0.5
Hours: 24 (8 lecture, 16 laboratory)
Designed to equip the student with the techniques and methods for using rope, webbing, hardware friction devices and litters in low angle rescue situations. Areas covered include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage systems and single and two line rescue systems. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0640. Hazardous Materials Technician 1A, Basic Chemistry
Units: 2
Prerequisite: Completion of FIRE 170 with grade of "C" or better or approved Federal/State equivalent course
Hours: 40 lecture
Basic aspects of chemistry and physics related to management of a hazardous materials incident. Covers physical and chemical properties of matter, atomic structure, periodic table, metals and non-metals, salts, hydrocarbons and derivatives, forms of energy, the combustion process, flammable and combustible liquids. Meets standards prescribed by the CA State Fire Marshal, and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0641. Hazardous Materials Technician 1B, Applied Chemistry
Unit: 1.5
Prerequisite: Completion of FIRE 640 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (24 lecture, 16 laboratory)
Basic terminology and theory of chemistry as it relates to hazardous materials. Covers chemical aspects of the hazard classes, toxicology, including hazard and risk assessment, function and use of detection instruments, monitoring hazardous atmospheres and use of a field identification kit to identify unknown solids and liquids. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0642. Hazardous Materials Technician 1C, Incident Considerations
Unit: 1.5
Prerequisite: Completion of FIRE 641 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (26 lecture, 14 laboratory)
Hazardous materials on-scene incident considerations. Covers data research, meteorological considerations, protective actions, personal protective equipment, incident command aspects, site safety concepts, legislative and regulatory measures influencing emergency response and contingency planning. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0643. Hazardous Materials Technician 1D, Tactical Field Operations
Unit: 1.5
Prerequisite: Completion of FIRE 642 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (24 lecture, 16 laboratory)
Experience with tactical field operations. Covers confinement, control, hazmat triage and sabotage, performing in chemical protective clothing, preservation of evidence, decontamination, and emergency medical system considerations. Meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0644. Hazardous Materials Specialist 1F
Unit: 1.5
Prerequisite: Completion of FIRE 643 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (32 lecture, 8 laboratory)
Introduction to mitigation techniques. Includes plugging, patching and repairing methods; advanced chemical field identification testing procedures, and fixed facility repair considerations. Part one of a two part series leading to certification as a Hazardous Materials Specialist. Meets requirements of CA Code of Regulations Title 8, Section 519(q). (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0645. Hazardous Materials Specialist 1G
Unit: 1
Prerequisite: Completion of FIRE 644 with grade of "C" or better or approved Federal/State equivalent course(s)
Hours: 40 (16 lecture, 24 laboratory)
Covers material presented in Hazardous Materials Courses 1A-1F in an environment of scenario based full scale exercises. Participants evaluated for their ability to perform and be certified as a member of a Hazardous Materials Team. (not transferable) (not degree applicable) (pass/no pass grading)

FIRE 0650. Rescue Systems I
Unit: 1.5
Prerequisite: Completion of FIRE 638 with grade of "C" or better or completion of a State Fire Marshal approved Low Angle Rope Rescue Operational course
Hours: 40 (21 lecture, 19 laboratory)
Rescue systems, ropes and related equipment, heavy object operations, breaking and breaching operations, ladder rescues, and emergency shoring. Required for CA Urban Search and Rescue basic and light operational level training. (not transferable) (not degree applicable) (pass/no pass grading)

French (FREN)

FREN 0001. Elementary French - Level I
Units: 4
Hours: 72 lecture
Listening, speaking, reading, and writing in French. Fundamentals of French pronunciation and grammar. Introduction to the culture of the French-speaking people. Corresponds to two years of high school study. (CSU, UC)

FREN 0002. Elementary French - Level II
Units: 4
Prerequisite: Completion of FREN 1 or two years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Continuation of FREN 1 with greater emphasis on speaking and writing. Explores culture, historical figures, and events of the areas where French is spoken. (CSU, UC)

FREN 0003. Intermediate French - Level I
Units: 4
Prerequisite: Completion of FREN 2 or three years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the French language. Review of grammar with increased emphasis upon speaking and linguistic structure of the language, reading of excerpts from works of French-speaking authors, study of cultural distinctions among the French-speaking peoples, and writing at the intermediate level. (CSU, UC)

FREN 0004. Intermediate French - Level II
Units: 4
Prerequisite: Completion of FREN 3 or four years of high school French with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the French language. Study of advanced grammar with increased emphasis upon the skills of reading and interpreting works of French literature. Greater focus upon writing and speaking skills. (CSU, UC)

FREN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Geography (GEOG)

GEOG 0001. Physical Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Explore Earth's landscape and environmental processes, including the Earth's atmosphere, weather, climate regions, hydrosphere, oceans, clouds, rivers, biosphere, and the Earth landforms, such as mountain building and river systems. Emphasis on the holistic understanding landscape patterns and environmental systems as they relate to location. Also examines human influence on the natural world. (C-ID GEOG 110) (combined with GEOG 1L, C-ID GEOG 115) (CSU, UC)

GEOG 0001L. Physical Geography Laboratory
Unit: 1
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 1
Hours: 54 laboratory
Earth's physical systems, atmosphere, weather and climate, landforms and fluvial systems; includes map reading and investigating remote sensing, GPS, and Geographic Information Systems (GIS). (C-ID GEOG 111) (combined with GEOG 1, C-ID GEOG 115) (CSU, UC)

GEOG 0002. Cultural Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Population, migration, religion, languages, agriculture, economic development and exploration of how humans interact with their environment. Analysis of differences of cultures including housing types, agricultural techniques, and popular and folk customs. Investigation of humans as the primary modifier of the physical landscape within the limits of the Earth's natural resources. (C-ID GEOG 120) (CSU, UC)

GEOG 0003. Geography of California
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to California's diversified geography including climate, landforms, natural vegetation, and water resources, the cultural landscapes of ethnic diversity, our Native American past, urban and agricultural regions, and the economic challenges of the future. Emphasis on cultural diversity, human alteration of the landscape, contemporary problems and resource competition. (C-ID GEOG 140) (CSU, UC)

GEOG 0004. Weather and Climate
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The elements and controls of weather and climate - atmospheric heating, the heat budget, air circulation and winds, moisture, clouds, and precipitation; world climates, their classifications; data collection and interpretation, investigate global climates to microclimates. (C-ID GEOG 130) (CSU, UC)

GEOG 0005. World Regional Geography
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to the world's major geographic regions; their cultural practices, politics, economics, religions, history and environmental characteristics. Location and analysis of important geographic features including mountains, rivers, countries and major cities of Asia, Australia, Africa, North America, Europe and South America. (C-ID GEOG 125) (CSU, UC)

GEOG 0015. Field Geography - Northern California
Units: 0.5
Hours: 13 (7 lecture, 6 laboratory)
Explore valley and mountainous regions of Northern California, such as the Sacramento Valley, northern Coast Range and the southern Cascade mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

GEOG 0016. Field Geography - Central California Coast
Units: 1-2
Hours: 30 (12 lecture, 18 laboratory) per unit
Explore the central coast of Northern California, including the San Francisco Bay Area, the Monterey Bay and Santa Cruz area surrounded by a redwood and coastal ecosystem; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (C-ID GEOG 160) (CSU)

GEOG 0017. Field Geography - Greater Sierra Nevada & Lake Tahoe
Units: 1-2
Hours: 30 (12 lecture, 18 laboratory) per unit
Explore the greater Sierra Nevada region, such as Lake Tahoe and the surrounding Sierra Nevada mountains; learn about the region's natural history, its culture and past history, its people and industry, human-environmental relationships including land-use, and a sense of place. Some hiking and camping may be required. (CSU)

GEOG 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

GEOG 0085. Application of Geospatial Technologies
Unit: 1
Hours: 18 lecture
Investigation of Geographic Information Systems (GIS) case studies used in industry and government; explores how industry uses GIS with emphasis on natural resource management and watershed analysis. Additional focus on remote sensing, aerial photography, GPS technology. (CSU)

GEOG 0086. Global Positioning System (GPS) for GIS
Unit: 1
Hours: 18 lecture
Global Positioning System (GPS) theory and techniques, GPS field collection, GIS integration and publishing web maps. Discussion of state-of-the-art hardware and industry-standard software used by GIS professionals to prepare, collect and process spatial data. Data collected during class culminates in a comprehensive GIS mapping project used for analysis. (CSU)

GEOG 0090. Introduction to Geographic Information Systems (GIS)
Units: 4
Hours: 72 lecture
Study of Geographic Information Systems (GIS) and its applications to spatial data management. Focus on project design, data acquisition, database management, geographic analysis, and map design. Explores how GIS solves spatial problems, such as those in natural resources, earth and life sciences, environmental planning, local government, business, transportation, and other related fields. (C-ID GEOG 155) (CSU, UC)

GEOG 0091A. Beginning Geospatial Design
Unit: 1
Hours: 18 lecture
Introduction to Geographic Information Systems (GIS) cartographic and database design. Emphasis on GIS and mapping design for practical applications in the fields of natural resource management, disaster mapping, urban planning, business and other related fields. GIS skills include organizing geographic features and attributes, classifying data, labeling, symbology, and proper layout to create maps for GIS analysis. (CSU)

GEOG 0091B. Intermediate Geospatial Design
Unit: 1
Prerequisite: Completion with a grade of "C" or better or concurrent enrollment in GEOG 90 or 91A
Hours: 18 lecture
Builds on basic principles of beginning GIS Design, creating and editing maps, organizing GIS data for spatial analysis, and producing map layouts. (CSU)

GEOG 0093. Advanced GIS
Units: 4
Prerequisite: Completion of GEOG 90 with grade of "C" or better
Hours: 72 lecture
Explores advanced topics that build upon previously learned GIS concept and skills. Improve problem solving skills, spatial database organization, modeling, and producing various map outputs. Student completes a research project and assembles a map portfolio. (CSU)

GEOG 0094. Geospatial Analysis
Units: 3
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in GEOG 90 or 91B
Hours: 54 lecture
Geospatial analysis reveals patterns, relationships, and trends that solve real-world challenges. With GIS tools, students create surface contours, derive slopes, calculate flow direction, draw watersheds, determine line of sight and identify hotspots. GIS modeling and extensions are used. (CSU)

GEOG 0095. Internship in Geography
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

German (GER)

GER 0001. Elementary German - Level I
Units: 4
Hours: 72 lecture
Introduction to German language and culture, including speaking, listening, linguistic and grammatical structure, reading, pronunciation and intonation patterns. Corresponds to two years of high school study. (CSU, UC)

GER 0002. Elementary German - Level II
Units: 4
Prerequisite: Completion of GER 1 or two years of high school German with grade(s) of "C" or better
Hours: 72 lecture
Designed for those who have had previous training in the German language. Continuation of GER 1. Emphasis on speaking, listening, linguistic and grammatical structure, reading, writing. Further study of learning pronunciation and intonation patterns, together with continued discussion of unique cultural characteristics of the German-speaking peoples. Students continue to memorize dialogues, become knowledgeable of utilizing a substantial vocabulary, and conduct translations of culturally meaningful reading selections. (CSU, UC)

GER 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Health Education (HED)

HED 0001. Standard First Aid/Community CPR
Units: 3
Hours: 54 lecture
Theory and detailed demonstration of first aid care of the injured. Students learn to assess a victim's condition and incorporate proper treatment. Standard first aid, CPR, and AED certifications granted upon successful completion of requirements. Recognition and treatment for cardiac and respiratory emergencies, first aid for bleeding, shock, burns, poisoning, stroke, and various injuries. (C-ID KIN 101) (CSU, UC)

HED 0002. Health Education
Units: 3
Hours: 54 lecture
Studies aspects of mental, emotional, and physical health. Emphasis placed on knowledge for development of attitude, understanding, and practice of a preventive life style for healthy living and optimal wellness. Specific instructional areas include chronic diseases, physical activity, nutrition, weight management, birth control methods, human sexuality, alcohol, tobacco, and illicit chemical use, stress, and factors that contribute to wellness and longevity. Experience in personal health assessment and the changing of health behaviors is stressed. (CSU, UC)

HED 0010. Health and Aging
Units: 3
Hours: 54 lecture
Designed to identify and examine basic principles and concepts of the aging process; including the physical, social, emotional, and mental components of health. Benefits of health promotion programs and preventive actions for the aging are also explored. (CSU, UC)

HED 0101. Introduction to Public Health
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Overview of the disciplines of community and public health. Topics include the basic concepts and terminologies of public health; an overview of various public health professions and organizations; the study, prevention and control of diseases in the community; the analysis of the social determinants of health; strategies for eliminating disease, illness, and health disparities among various populations; community organizing and health promotion programming; school health promotion; environmental health and safety; and an overview of the healthcare delivery system in the United States. Emphasis will be placed on the development of knowledge and preliminary skills to serve as an effective advocate for community and public health. (C-ID PH 101) (CSU, UC)

HED 0102. Health and Social Justice
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Provides an introduction to the health inequities in the United States that stem from unequal living conditions. Students will explore how education, socioeconomic status, racism, and gender shape health epidemics and policy development. Fundamental theories to advocate for health and social justice will be explored, and community organizing approaches will be practiced. (C-ID PH 102) (CSU, UC)

HED 0113. Health Disparities and Equities
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
This course will examine personal and social determinants of health through the examination of the role individuals play in their own health and wellbeing, along with the impact of environmental, social, structural, and cultural factors that play a role both in individual and community and public health. Health disparities and inequities in sexually diverse, gender, racial, and minority populations will be explored, and culturally competent ideas to bridge the health equity gap and improve population health will be developed. (CSU)

Health Sciences (HSCI)

HSCI 0002. Emergency Medical Technician
Units: 9
Advisory: Completion of HSCI 3, HSCI 7, and BIOL 55 or HSCI 30 with grade of "C" or better
Hours: 235 (131 lecture, 80 laboratory, 24 activity)
Provides knowledge and critical thinking skills necessary to deliver emergency medical care in a prehospital environment. Covers legal and moral aspects, scene safety, primary and secondary patient assessments, intervention and stabilization skills, proper use of emergency medical equipment, awareness of bloodborne pathogens and communicable diseases, recognition of signs and symptoms, and pathophysiology of medical emergencies and traumatic injuries. Includes practical hands-on skills training and interactive simulations. Includes certification for American Heart Association (AHA) CPR professional and bloodborne pathogen and infection control. Tactical EMS training and state certification in "TEMS First Responder Operations". Clinical experience is an assigned field and/or clinical observation. Attendance and participation are mandatory; a cumulative score of 80% on all written quizzes and exams, and a passing score on all practical skills testing are required for qualification for national and state EMT certification. Meets updated National Education Standards for EMT curriculum, and all requirements of the California Code of Regulations Title 22, the California EMS Authority, and the National Registry of Emergency Medical Technicians (NREMT). Upon successful completion, the student is eligible to take the NREMT EMT examination and qualify for a California State EMT certification. Students must be 18 years of age at the start of the course; provide a Tuberculosis (TB) Blood Test (QuantiFERON) or a negative chest x-ray; provide proof of immunizations for Mumps, Measles, Rubella (MMR); Varicella zoster-vaccination or positive titer; Hepatitis B series completion and titer, or Hepatitis B series in progress and a signed declination; Diphtheria, Tetanus, and Pertussis (Tdap); current influenza vaccine; Student is required to take a drug screen test demonstrating the absence of evidence of controlled substance use and provide criminal background screening satisfying the requirements of the State EMS Authority and EMT program clinical providers. (CSU)

HSCI 0003. Medical Terminology
Units: 3
Hours: 54 lecture
Comprehensive overview of the medical language using a systems oriented approach of the human body. Covers the formation, spelling, correct pronunciation, and proper usage of common medical terms and abbreviations. The terminology is relative to the medical applications used within a wide variety of health care professions. Course meets the prerequisite requirements of numerous allied health care training programs, and is highly recommended as a preparatory course for EMT, Paramedic and Nursing programs. (CSU)

HSCI 0007. Emergency Medical Responder

Units: 3.5

Hours: 80 (62 lecture, 18 laboratory)

Provides the knowledge and practical skills training required to be certified as an Emergency Medical Responder (EMR). Comprehensive training includes oxygen therapy and delivery, basic airway adjuncts, positive pressure ventilation, bleeding control, extremity splinting and spinal immobilization. Emphasizes a systematic patient assessment, critical thinking and medical interventions at the first responder level. Provides the mandated training for recognizing the risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standard 29 CFR 1910.1030 specific to the EMS first responder and healthcare professional. Upon completion with a grade of "C" or better, students are issued a certificate of completion and are eligible to apply for an EMR certification through the state of California. (CSU)

HSCI 0012. Professional CPR and Infection Control

Units: 0.5

Hours: 16 (10 lecture, 6 activity)

Provides the American Heart Association (AHA) Basic Life Support/ CPR certification for Healthcare Providers. Also provides mandated training for recognizing risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standard 29 CFR 1910.1030 specific to the healthcare professional. (not transferable)

HSCI 0030. Functional Anatomy and Pathophysiology For EMS Professionals

Units: 3

Prerequisite: Completion of HSCI 2 with grade of "C" or better, or current state certification as an Emergency Medical Technician

Hours: 54 lecture

Designed for students pursuing careers in Emergency Medical Services (EMS) and advanced levels of prehospital care. Provides overview of functional anatomy, symptomology and pathophysiology of disease, medical emergencies, and effects of traumatic injuries. EMS management and review of field treatment protocols enhance ability to treat and stabilize emergency medical situations in the field. (CSU)

HSCI 0050. Introduction to Advanced Life Support

Units: 3.5

Prerequisite: Completion of HSCI 2 with grade of "C" or better, or a similar state certified EMT course; must be currently certified as an EMT in the state of California or certified through the National Registry of Emergency Medical Technicians (NREMT)

Advisory: Completion of HSCI 3 and BIOL 55 with grades of "C" or better

Hours: 80 (60 lecture, 20 laboratory)

Introduction to the advanced knowledge and critical thinking skills necessary to prepare for a paramedic program, advanced emergency medical technician (AEMT) training, registered nursing (RN), physician assistant (PA), and other allied health training programs. Assessment based course focuses on advanced life support (ALS) interventions; electrocardiogram (EKG) recognition and interpretation; pharmacology; advanced airway management; intravenous and intraosseous fluid and drug infusion; basic anatomy, physiology and principles of pathophysiology; introduction to local, state and national ALS protocols. Practical skills labs focus on improving patient assessment techniques, managing realistic case study scenarios, and introduction to AEMT, paramedic skills, protocols, and interventions. Course format is interactive and simulates the intense pace and discipline required of AEMT, paramedic and other allied health vocational training. Mandated student participation, passing of written exams and practical skills assessments required for completion. Course is approved for eighty (80) hours of instructor based continuing education (CE) by the National Registry of Emergency Medical Technicians (NREMT) and as a California state EMS CE Provider. (CSU)

HSCI 0051. Advanced Emergency Medical Technician (AEMT) Didactic

Units: 6

Prerequisite: Current AHA Healthcare Provider CPR certification and current California State EMT certification required

Advisory: Completion of HSCI 3, HSCI 30, HSCI 50, and BIOL 55 with grades of "C" or better; eligibility for ENGL 11

Hours: 144 (90 lecture, 54 laboratory)

Provides academic preparation and psychomotor skills training to prepare the student for HSCI 52, the Advanced Emergency Medical Technician (AEMT) clinical and field Internship. Successful completion of HSCI 51 and HSCI 52 make the student eligible to take the National Registry of EMTs (NREMT) Advanced EMT certification exam. Topics include Limited Advanced Life Support (LALS) knowledge, application and problem solving skills necessary to work as an AEMT in the Emergency Medical Services (EMS) field for an ambulance service, fire department, hospital emergency department or other specialized service. A "C" letter grade, as well as successful completion of the HSCI 51 exit exam and psychomotor skills test, are required to be eligible for HSCI 52. This course conforms to the National EMS Scope of Practice Model and the EMS National Education Standards, complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations, and is approved by the Sierra Sacramento-Valley Emergency Medical Services Agency. Field trips or off-campus lab assignments are required. (not transferable)

HSCI 0052. Advanced Emergency Medical Technician - Clinical/Field Experience
Units: 3.5
Prerequisite: Completion of HSCI 2 and HSCI 51 with grades of "C" or better, or equivalent training; HSCI 52 must be completed no more than seven months after the completion of HSCI 0051; current AHA Healthcare Provider CPR certification and current California State EMT certification required; must submit to a drug screen test demonstrating the absence of any evidence of controlled substance use and provide a criminal background check satisfying the requirements of the State EMS Authority, and the AEMT program clinical providers; must provide two negative TB tests by two-step PPD process, or a negative chest x-ray; provide proof of immunizations for Mumps, Measles, Rubella (MMR); Varicella zoster-vaccination or positive titer; Hepatitis B status screening or signed declination; Diphtheria, Tetanus and Pertussis (Tdap); current influenza vaccine
Advisory: Completion of HSCI 3, HSCI 30, HSCI 50 and BIOL 55 with grades of "C" or better; eligibility for ENGL 11
Hours: 200 laboratory
Provides the supervised clinical and field experience training requirements for Advanced Emergency Medical Technician, at the limited advanced life support (LALS) scope of practice. Successful completion of HSCI 51 and HSCI 52 makes the student eligible to take the National Registry of EMTs (NREMT) Advanced Emergency Medical Technician (AEMT) certification exam. Course is approved by the Sierra Sacramento Valley - Emergency Medical Services (EMS) Agency, and conforms to the National EMS Scope of Practice Model, the EMS National Education Standards and complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations. (not transferable)

HSCI 0053. Paramedic - Advanced Life Support Part 1
Units: 10
Prerequisite: Current California State Emergency Medical Technician (EMT) Certification; current American Heart Association Healthcare Provider CPR certification
Advisory: Completion of HSCI 30, HSCI 50 or BIOL 55, and HSCI 3 with grades of "C" or better
Hours: 252 (144 lecture, 108 laboratory)
Part one of a four-part series of courses providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). Theory and psychomotor application of prehospital care including the anatomy and physiology of respiratory and cardiovascular disease processes, medical disorders, and emergencies across the adult life span. Students will learn to identify abnormal physical assessments and apply appropriate priority interventions. Competencies in accessing and evaluating patient monitoring technologies, integrating advanced life support theories to perform paramedic skills related to prehospital care standards for medical emergencies and disorders. Students will receive certified training in Advanced Cardiac Life Support (ACLS). (CSU)

HSCI 0054. Paramedic - Advanced Life Support Part 2
Units: 9
Prerequisite: Completion of HSCI 53 with grade of "B" or better; current California EMT Certification and AHA BLS CPR Certification
Hours: 248 (122 lecture, 126 laboratory)
Part two of a four-part series of courses providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). Theory and psychomotor application of prehospital care including the anatomy and physiology related to body systems and the impact of trauma, disease processes, and medical disorders for common obstetric, pediatric, and geriatric patient emergencies. Students will learn to identify abnormal physical assessments and apply appropriate priority interventions. Competencies in accessing and evaluating patient monitoring technologies, and integrating advanced life support theories to perform paramedic skills related to prehospital care standards for traumatic injuries and medical emergencies. Students will receive certified training in Pediatric Advanced Life Support (PALS)/Handtevy or equivalent. (CSU)

HSCI 0055. Paramedic Clinical Experience
Units: 5
Prerequisite: Completion of HSCI 54 with grade of "B" or better; current California EMT Certification, Current AHA BLS, ACLS and PALS Certification/equivalent
Hours: 234 (18 lecture, 216 laboratory)
Part three of a four-part series providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). The Clinical section provides students with an acute clinical care experience under the direct supervision of a Registered Nurse and Paramedic preceptor. The student will identify abnormal physical assessments and be able to apply appropriate priority interventions. Students will be exposed to dynamic clinical environments including the emergency department and labor and delivery. Supervised clinical training on high-fidelity manikin simulation. (CSU)

HSCI 0056. Paramedic Field Internship
Units: 10
Prerequisite: Completion of HSCI 55 with grade of "B" or better; current California EMT Certification, AHA BLS, ACLS, PALS Certification/equivalent
Hours: 540 laboratory
Part four of a four-part series providing the foundational knowledge required for the paramedic level of care in the Emergency Medical System (EMS). The field Internship section provides the paramedic student the culminating field experience minimum of 480 hours on an Advanced Life Support (ALS) ambulance and/or fire engine. The paramedic student will work in a variety of patient care situations under the direct supervision of a Paramedic Preceptor and will demonstrate the ability to perform an assessment, identify abnormal physical findings, and be able to apply appropriate priority interventions while working in dynamic field environments. (CSU)

HSCI 0080. Introduction to Public Safety Dispatch
Units: 3
Also known as ADMJ 78 and FIRE 80
Hours: 54 lecture
Overview of the critical role of the Public Safety Dispatcher as first point-of-contact for coordinating emergency responses; exploration of advancements in telecommunications and emergency notifications systems; use of proper radio codes and crisis-intervention techniques used to calm and communicate with distraught callers; awareness of job requirements and hiring process for career pathways in Public Safety Dispatching. (CSU)

HSCI 0600. Emergency Medical Technician Continuing Education
Unit: 1
Prerequisite: Must be eligible for certification or re-certification as an EMT in the State of California
Hours: 24 (16 lecture, 8 laboratory)
Provides 24 hours of continuing education required for state re-certification as an Emergency Medical Technician (EMT). Reviews current standards for airway management and ventilation, patient assessment, cardiac care and resuscitation, injury management and stabilization, legal and ethical issues, vital signs, assisting with medication administration, and review of the updated and optional EMT scope of practice. Students update their psychomotor skills and demonstrate proficiency in organized skills labs. Students that successfully complete the course receive a certificate of completion. May be repeated for credit to meet legally mandated continuing education and re-certification requirements. (pass/no pass grading) (not degree applicable)

History (HIST)

HIST 0004A. Western Civilization to 1715
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the development of western culture from its beginning to 1715; exploration of the scope and definition of western culture and civilization interrelating political and social events with art, literature, and philosophy; covering the ancient Middle East, Greece, Rome, Late Antiquity, the Medieval era, and early Modern Europe. (C-ID HIST 170) (CSU, UC)

HIST 0004B. Western Civilization since 1715
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of European history and the development of western culture, from 1715 to present, interrelating political and social events with art, literature, and philosophy; covering the Ancient Regime, the Age of Democratic Revolutions, industrialization, the rise of fascism and communism, the two world wars, the Cold War, the postwar era, and the European Union. (C-ID HIST 180) (CSU, UC)

HIST 0008A. Asian American History: 18th Century to 1945
Units: 3
Hours: 54 lecture
An exploration of Asian American history from the 18th century to WWII. A comparative analysis of issues and perspectives by first wave immigrants from China, Japan, Korea, India, the Philippines with emphasis on colonialism, imperialism, war, Orientalism, discrimination, social inequity, immigration and settlement patterns, labor, community, and political resistance. This course will ask students to challenge the traditional "master" narrative of U.S. history and encourage them to examine how Asian American history transforms U.S. history. This course includes analysis of the U. S. Constitution, Supreme Court Rulings, and California State and local government issues related to the rights of Asian Americans. (CSU, UC)

HIST 0008B. Asian American History: Early 20th Century to 21st Century
Units: 3
Hours: 54 lecture
A historical survey of Asian Americans from early 20th century to the present. Major topics will include war, refugees, immigration and settlement patterns, laws, labor and socioeconomic class, social movements, education, discrimination, gender, sexuality, and social identity. The course will interrogate the term "Asian American" and apply comparative analysis among diverse groups including Chinese, Japanese, Filipino, Korean, South Asian, and Southeast Asian. This course includes analysis of the U. S. Constitution, Supreme Court Rulings, and California State and local government issues related to the rights of Asian Americans. (CSU, UC)

HIST 0017A. History of the United States to 1877
Units: 3
Hours: 54 lecture
History of the United States from its origins to 1877. Emphasis on evolution of colonial societies, the American Revolution and the establishment of the Republic, Constitution and constitutional developments, and emergence of a national political tradition; ethnic and racial pluralism of settlement, growth and development; the market revolution and emergence of democracy; institution of slavery, territorial expansion, and events, issues, and developments culminating in the Civil War and the Reconstruction of the South. (C-ID HIST 130) (CSU, UC)

HIST 0017B. History of the United States since 1865
Units: 3
Hours: 54 lecture
History of the United States from 1865 to the present. Emphasis on national political, economic, intellectual, and social trends and their impact on constitutional law; industrialization and urbanization; evolution of American ethnic, cultural and racial pluralism; and role of United States in world affairs. Also addresses California state and local issues in a broad, national context. (C-ID HIST 140) (CSU, UC)

HIST 0018A. The African American Experience in American History to 1877
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
History of African Americans from the pre-European West African city state kingdoms to the end of Reconstruction; major events in America's development emphasizing the role of people of African descent in the political, social and economic life of the United States; the institution of slavery; free blacks in the North and the abolitionist movement. (CSU, UC)

HIST 0018B. The African American Experience in American History since 1877
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
History of African Americans in the United States since the Civil War; major events in America's development emphasizing the role of people of African descent in the political, social and economic life of the United States; Reconstruction; Jim Crow era; Booker T. Washington and W.E.B. DuBois; the Civil Rights Movement; and African Americans in the Reagan-Bush and Clinton eras. (CSU, UC)

HIST 0019A. History of Traditional East Asia
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the major cultural, social, and political traditions and institutions of India, China, Japan, and Southeast Asia from the earliest civilizations to the 17th century. Includes imperial and dynastic developments, artistic and philosophical expression, economies and commerce, and impact of pan-Asian Buddhist and Muslim movements. (CSU, UC)

HIST 0019B. History of Modern East Asia
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
East Asia from the 17th century to present. Includes Asian societies on the eve of modernization, regional responses to Western imperialism, modern nationalist movements, Asia during the two world wars, and role of Asia in modern global economics and diplomacy. Comparisons of China, Japan, and Indian subcontinent; reference to Korea and Southeast Asia. (CSU, UC)

HIST 0020. California History
Units: 3
Hours: 54 lecture
Comprehensive survey of the history of California from prehistoric to contemporary times. Emphasis on the environment and the three main eras of human settlement: California Indian, Spanish and Mexican, and American periods. Study of diverse Indian groups; various movements of people over time and different perspectives on government, law, economics, and culture. Local, state, regional, national, Pacific Rim, and global issues. (CSU, UC)

HIST 0021. Contemporary United States History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Study of American social, political and economic history since 1945; course emphasis on the impact of the Cold War and the struggles of civil rights and social justice that have shaped contemporary America. Also examined: the effects of globalization, technology, environmental challenges and religion in the post-war era. (CSU, UC)

HIST 0022. American Military History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Study of American Military History, from 1774 to present, covering the American War of Independence, War of 1812, the Barbary Wars, Mexican American War, Civil War, Native American Wars, Spanish American War, Boxer Rebellion, World War I, World War II, Korea, Vietnam, Gulf War of 1991, Afghanistan 2002, and Iraqi Freedom 2003. Includes the reading of historical works, literature, and historical documents. Examines the Powell Doctrine, the Principles of War, and the reasons and causes of war. (CSU, UC)

HIST 0023. Chicano/Mexican American History
Units: 3
Hours: 54 lecture
Comprehensive survey of the history of Mexican Americans, from the Pre-contact era to the present. Emphasis on experiences and contributions of Chicanas/os in the United States regarding culture, economy, government, law, education and politics. Includes a study of the United States Constitution. (CSU, UC)

HIST 0024. Russian History - 10th Century to Present
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of Russian history from the 10th century to the present. Includes the Slavic, Kievan, Muscovite, and Imperial eras through the Revolutions of 1917, the rise and fall of the Soviet Union, and the post-Soviet era. Emphasis on the major political, social, economic, and cultural trends that define Russian and Soviet civilizations. (CSU, UC)

HIST 0025. Native American History
Units: 3
Hours: 54 lecture
History of Native American nations and peoples from Pre-Contact to the present. Covers the impact of European contact, trade, and colonization; examines the effects of United States political, economic, and social policies on Native Americans throughout U.S. history with an emphasis on the U.S. Constitution and Federal Indian Law. Emphasis on Native American peoples' attempts to protect their sovereignty, retain their cultural identity, and revitalize their societies across time. (CSU, UC)

HIST 0026. Women in World History
Units: 3
Advisory: Eligibility for English C1000
Hours: 54 lecture
A broad and general exploration of women's historical involvement around the world from prehistory to the present. Emphasis on women's experiences and contributions to historical developments regarding social, economic, and cultural life, government, politics, personal issues, race and racism, ethnicity, sexuality and gender. Explores the ideologies, issues, and events that have shaped the lives, roles, and contributions of women to determine the role of women in politics, economics and society. (CSU, UC)

HIST 0027. Women in American History
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of women's roles in American history from its pre-colonial origins to the present. Emphasis on women's experiences and contributions to historical developments regarding social, economic, and cultural life, government, politics, personal issues, the U.S. Constitution, race and racism, ethnicity, sexuality and gender. (CSU, UC)

HIST 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

HIST 0049. The American West
Units: 3
Advisory: Eligibility for English C1000
Hours: 54 lecture
History of the movement of the American people from the eastern coast of North America to the Pacific Ocean, including the history of the trans-Mississippi West from the 16th century to the present. Included will be the numerous historical issues associated with the region, including cultural contact and conflict, economic development, visions and meanings of the West, human interaction with nature and the environment, relationship between western states and the federal government, tourism, the growth of the sunbelt cities, and the shifting nature of race, class, gender, and power in the region. (CSU, UC)

HIST 0050. World History to 1500
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey to 1500 of the political, economic, social, geographic, and religious/philosophical characteristics of the major world civilizations and the interactions among these civilizations. (C-ID HIST 150) (CSU, UC)

HIST 0051. World History since 1500
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey from 1500 of the political, economic, social, and cultural developments of world civilizations with a special emphasis on exploring interactions among these civilizations. (C-ID HIST 160) (CSU, UC)

HIST 0095. Internship in History
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Human Development and Family (HDEV)

HDEV 0001. Human Development Through the Lifespan
Units: 3
Hours: 54 lecture
Study of the physical, cognitive, psychosocial and emotional changes in development through the life span. Focuses on practical application of developmental principles and patterns of growth from conception through late adulthood, including death and bereavement processes. Designed as a foundation course for careers in social service, psychological, health and medical fields. (CSU, UC-with unit limitation)

HDEV 0002. Principles and Practices of Teaching Young Children
Units: 3
Hours: 54 lecture
Examination of the underlying theoretical principles of developmentally appropriate practices in early care and education. Emphasis on the role of the early childhood educator, the importance of teacher child relationships, curriculum, and effective teaching strategies and environmental design for supporting development in young children. This course includes a review of the historical roots of early childhood programs, and the evolution of the professional practices promoting advocacy, ethics, and professional identity including career pathways and professional standards. (C-ID ECE 120) (CSU)

HDEV 0003. Observation and Assessment
Units: 3
Prerequisite: Completion of HDEV 1 or 9 with grade of "C" or better; completion of HDEV 2 with grade of "C" or better
Hours: 54 lecture
The appropriate use of assessment and observation tools and strategies to document young children's development, learning and behavior. Emphasizes use of findings to inform and plan learning environments and experiences. Recording strategies, rating systems, portfolios, and multiple assessment tools will be explored, along with strategies for collaboration with families and professionals. Child observations will be conducted and analyzed. (C-ID ECE 200) (CSU)

HDEV 0004. Child, Family, and Community
Units: 3
Hours: 54 lecture
An examination of the processes of socialization focusing on the interrelationship of family, school, and community. Examines the influence of historical and socio-cultural contexts. Explores the role of collaboration between family, community, and schools in supporting children's' development. (C-ID CDEV 110) (CSU, UC)

HDEV 0005. Introduction to Curriculum
Units: 3
Prerequisite: Completion of HDEV 1 or 9 with grade of "C" or better; completion of HDEV 2 with grade of "C" or better
Hours: 54 lecture
Presents an overview of knowledge and skills related to providing developmentally appropriate curriculum and environments for all young children. Explores teaching strategies and curriculum development based on theoretical frameworks, observation, and assessment. Emphasizes the teacher's role in supporting development and learning across the curriculum, including all content areas. (C-ID ECE 130) (CSU)

HDEV 0007. Health, Safety, and Nutrition
Units: 3
Formerly known as HDEV 6 and 8
Hours: 54 lecture
Laws, regulations, standards, policies, procedures, and best practices related to health, safety, and nutrition in early childhood settings. Includes prevention strategies, nutrition, and meal planning for various ages and planning educational experiences integrated into daily routines designed to teach children positive health, safety, and nutrition habits. (C-ID ECE 220) (CSU)

HDEV 0009. Child Growth and Development
Units: 3
Hours: 54 lecture
This course examines the major physical, cognitive/language, social and emotional developmental milestones for children from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors. While studying developmental theory, students will evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. Designed as a foundation course for careers in early childhood and for those seeking a teaching credential. (C-ID CDEV 100) (CSU, UC-with unit limitation)

HDEV 0010. Practicum Experience in Early Childhood Education
Units: 3
Prerequisite: Completion of HDEV 3 and 5 with grades of "C" or better
Corequisite: Concurrent enrollment in HDEV 10L
Advisory: Completion of HDEV 25 with grade of "C" or better
Hours: 54 lecture
Focuses on child centered, play-oriented approaches to teaching, learning, and assessment. Knowledge of developmentally appropriate curriculum content areas will also be emphasized as students design and evaluate experiences that promote development and learning for all young children. Students must co-enroll in HDEV 10L to secure their practicum/student teaching space in a local high quality child development program. (combined with HDEV 0010L C-ID ECE 210) (CSU)

HDEV 0010L. Practicum Experience in Early Childhood Education Lab
Unit: 1.5
Prerequisite: Completion of HDEV 3 and 5 with grades of "C" or better
Corequisite: Concurrent enrollment in HDEV 10
Advisory: Completion of HDEV 25 with grade of "C" or better
Hours: 90 laboratory
Ninety hours of student teaching experience will be required for this course, in addition to enrollment in the lecture portion of HDEV 10. Students will be placed in pre-selected local classroom settings within district boundaries. Please see class schedule for student teaching placement meeting information, as well as immunization requirements. (combined with HDEV 0010 C-ID ECE 210) (CSU)

HDEV 0011. Infant and Toddler Development
Units: 3
Hours: 54 lecture
A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. Applies theoretical frameworks to interpret behavior and interactions between heredity and environment. Emphasizes the role of family and relationships in development. (CSU)

HDEV 0012. Infant/Toddler Care and Education
Units: 3
Hours: 54 lecture
Applies current theory and research to the care and education of infants and toddlers in group settings. Examines essential policies, principles and practices that lead to quality care and developmentally appropriate curriculum for children birth to 36 months. (CSU)

HDEV 0021. Psychology of Intimate Relationships and Family
Units: 3
Also known as PSYC 110
Hours: 54 lecture
Study of the meaning and functions of intimate relationships and family. Consideration given to the nature of commitments, sexuality, alternative relationships, communication, conflict resolution, economics, parenting, crises, and marital separation. Recommended for majors in Human Development and Family and for those in human service careers. (CSU, UC)

HDEV 0022. The Family
Units: 3
Also known as SOC 4
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the analysis of the family as a social institution. Of particular interest are the changing structure of family, gender roles, dating, marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

HDEV 0025. Teaching in a Diverse Society
Units: 3
Hours: 54 lecture
Examines the impact of various societal influences on the development of children's social identity. Covers developmentally appropriate, inclusive, and anti-bias approaches. Self-examination and reflection on issues related to social identity, stereotypes, and bias will be emphasized. (C-ID ECE 230) (CSU)

HDEV 0027. Effective Classroom Management
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Hours: 54 lecture
Identify and analyze challenging behaviors and learn to implement research based strategies and curriculum that improve the social and emotional climate in the classroom. Emphasizes the connection between children's social and emotional development and their success in the classroom. All factors contributing to behavior, including teacher biases and family dynamics, will be analyzed. This course will address behavior issues of both preschool and elementary aged children and focuses on the prevention of challenging behaviors. (CSU)

HDEV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

HDEV 0030. Creative Process in Children
Units: 3
Hours: 54 lecture
Introduction to the aesthetic development and creative expression of children to age 8. Exploration of art methods, materials, creative process, and developmental stages. Enables students to implement effective teaching strategies for encouraging children's artistic and overall creative development. (CSU)

HDEV 0038. Adult Supervision and Mentoring in Early Care and Education
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Hours: 54 lecture
Methods and principles of supervising student teachers, volunteers, staff, and other adults in early childcare and education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. (CSU)

HDEV 0040. Administration I: Programs in Early Childhood Education
Units: 3
Prerequisite: Completion of HDEV 2 and 9 with grades of "C" or better
Advisory: Completion of HDEV 3 and 5 with grades of "C" or better
Hours: 54 lecture
Introduction to the administration of early childhood programs. Covers program types, budget, management, regulations, laws and development and implementation of policies and procedures. Examines administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program. (CSU)

HDEV 0041. Personnel and Leadership in Early Childhood Education
Units: 3
Formerly known as HDEV 41A/41B/41C
Prerequisite: Completion of HDEV 40 with grade of "C" or better
Hours: 54 lecture
Effective strategies for personnel management and leadership in early care and education settings. Includes legal and ethical responsibilities, supervision techniques, professional development, and reflective practices for a diverse and inclusive early care and education program. (CSU)

HDEV 0044. Children's Literature
Units: 3
Also known as ENGL 44
Prerequisite: Eligibility for ENGL C1000
Hours: 54 lecture
Examination of high quality children's literature, both classic and contemporary, including criteria for selection, uses in child development and education, and practices in presentation and analysis. It includes the discussion of the history of children's literature and current issues such as censorship, literacy, multiculturalism, and diversity. This course is intended for prospective and current teachers, preschool aides, early child education (ECE) majors, librarians, parents, and students interested in the field of literature for children ages 0-13. (C-ID ENGL 180) (CSU, UC)

HDEV 0046. Language and Literacy
Units: 3
Hours: 54 lecture
Designed to support educators in the area of early language and literacy development. Focus on planning and implementing developmentally appropriate experiences that enhance the quality and quantity of oral language, provide for a print-rich environment and assist children in their growing understanding of print. Encourages literacy learning in a meaningful context and provides strategies for working with families and diverse populations. (CSU)

HDEV 0061. Nutrition Throughout the Life Cycle
Units: 3
Also known as NUTF 13
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Examination of nutritional requirements, concerns, and interventions during several stages of the life cycle, from preconception to old age. Analysis of cultural, environmental, physical, and economic factors affecting nutritional status. Practical application of adequate nutrition through dietary selection and promotion of health throughout each life cycle stage. (CSU)

HDEV 0095. Internship in Human Development and Family
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Humanities (HUM)

HUM 0001. Introduction to Humanities I
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the western cultural tradition through a survey of its religion, art, philosophy, literature, music, and architecture; covers prehistory through the Middle Ages. (CSU, UC)

HUM 0002. Introduction to Humanities II
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the western cultural tradition through a survey of its religion, art, philosophy, literature, music, and architecture; covers the Renaissance through the modern world. (CSU, UC)

HUM 0003. Introduction to Asian Humanities
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Survey of the religion, art, philosophy, literature, music, and architecture of Asia - from prehistory to the present - with an emphasis on India, China and Japan. (CSU, UC)

HUM 0005. Classical Roots of the Contemporary Western World
Units: 3
Formerly known as HUM 300G
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An examination of the Classical World's influence on the Contemporary Western World with special emphasis on theology, body image, love and sex, gender roles, democracy, conceptions of the good life, and entertainment based upon evidence from the art, architecture, literature, and philosophy of the Classical World. (CSU, UC)

HUM 0009. Introduction to Women, Gender and Religion
Units: 3
Also known as WMST 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Religion from a feminist perspective through a cross-cultural examination of major religious traditions of the East and West, as well as tribal faith practices. Emphasis on the historical role of women and gender in rituals, sacred texts, institutional structures, doctrine and religious iconography with respect to the impact on contemporary women regarding faith, politics and identity. (CSU, UC)

HUM 0010. World Religions
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Interdisciplinary survey of the beliefs and practices of the world's major religious traditions; focuses on primal religions, Hinduism, Judaism, Taoism, Confucianism, Buddhism, Christianity and Islam. (CSU, UC)

HUM 0015. Introduction to Mythology
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The major elements of western mythology, its history and development as part of the human experience and its influence on art, literature and politics. (CSU, UC)

HUM 0017. Introduction to Atheism
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the philosophy of atheism, its historical roots, major thinkers, and expressions in art, literature and philosophy. Includes history of free inquiry and thought, secular humanism, humanistic ethics and scientific naturalism. (CSU, UC)

HUM 0020. Introduction to the Hebrew Bible
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the texts of the Hebrew Bible ("Old Testament" or "Torah") and associated writings from the Ancient Near East. Analyzes the texts in their historical and cultural context, and surveys their various genres (poetry, prophecy, law, mythology, history, wisdom, etc.) Explores the relationship between Hebrew Scriptures and archaeology, literature, history, current Biblical scholarship, and women's studies. (CSU, UC)

HUM 0021. Introduction to the New Testament
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to New Testament literature in its cultural and historical context. Employs methods of critical analysis of Biblical materials, surveying issues related to their authorship, genre and content. Explores the historical Jesus, literary depictions of Jesus in the gospels, the career and writings of the apostle Paul, the structure and beliefs of the early Christian church, and Christian apocalypticism. Emphasizes the impact of the New Testament on western culture. (CSU, UC)

HUM 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

HUM 0095. Internship in Humanities
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Information Technology (IT)

IT 0015. Business Information Systems
Units: 3
Formerly known as CIS 62
Advisory: Eligibility for ENGL C1000
Hours: 72 (54 lecture, 18 laboratory)
Examination of information systems and their role in business. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems. (C-ID ITIS 120) (CSU)

IT 0028. Independent Study
Units: 1-3
Formerly known as CIS 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

IT 0055. Database Management
Units: 3
Formerly known as CIS 90
Advisory: Completion of Bus 252 with grade of "C" or better or strong understanding of MS Office Application navigation
Hours: 72 (54 lecture, 18 laboratory)
Discover the intricacies of relational databases using the current version of Microsoft Access. Includes designing database structures: tables, queries, forms, reports, and macros. Also includes integrating with the Web, Excel and other programs. Emphasis on hands-on learning. (C-ID ITIS 180) (CSU)

IT 0060. Project Management Concepts and Software
Units: 3
Formerly known as CIS 136
Advisory: Completion of BUS 252 and/or IT 55 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Explores Project Management concepts and terminologies along with the use of Microsoft Office Project and other project management tools through discussions, hands-on exercises and classroom learning experiences. Includes WBS, budgeting, and resource allocation and other important PM topics such as Scope and Project Team Development. Helps prepare students to use the software package in their daily duties as a project manager or project assistant. Helps prepare students to take the Certified Associate in Project Management - CAPM exam from PMI or the CompTIA Project+ exam. (not transferable)

IT 0065. Data Analytics/Visualization Using Tableau
Units: 3
Formerly known as CIS 91
Advisory: Completion of BUS 252 and IT 55 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Learn how to use Tableau, a leading data analysis and visualization tool, to bring the world's data into views that everyone can use and understand. Go beyond basic charts by building powerful dashboards and drill down reports to support business decision makers or help explain visually the global impact of a single voice. (not transferable)

IT 0075. Python for Many Uses
Units: 3
Advisory: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Learn to use Python to manipulate data for analytics, to manage IoT devices and/or for creating scripts to improve network security. This course will start at a very basic level and work up to applied solutions for real world work environments. (CSU)

IT 0080. IoT - Internet of Things
Units: 3
Advisory: Eligibility for ENGL C1000; Completion with grades of "C" or better or concurrent enrollment in IT 75 and IT 105 recommended
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the Internet of Things (IoT), where people, processes, things, and data are connected via emerging Internet technologies. A variety of networking and computer hardware devices will be integrated into end-to-end systems to solve practical problems. (CSU)

IT 0090. IT Fundamentals
Unit: 1.5
Hours: 36 (27 lecture, 9 laboratory)
Designed to prepare students to explain the basics of computing, IT infrastructure, software development, database use, installing software, establishing basic networking connectivity, and identifying/preventing basic security risks. This course is intended for students who are considering a career in IT and/or later considering the pursuit of completing the CompTIA Fundamentals+ (ITF+) certification exam. (not transferable)

IT 0095. Internship in Information Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

IT 0100. Information and Communication Technology Essentials
Units: 4
Formerly known as CIS 26
Hours: 90 (72 lecture, 18 laboratory)
Provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level Information Communication Technology (ICT) professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, cloud computing, and the responsibilities of an ICT professional will be introduced. A special emphasis is placed on software, hardware, and network troubleshooting techniques. This course is intended to help students prepare for the CompTIA A+ certification exams. (C-ID ITIS 110) (CSU)

IT 0105. Computer Network Fundamentals
Units: 3
Formerly known as CIS 65
Advisory: Completion of IT 100 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, implement Internet Protocol (IP) and enterprise technologies, including cloud and virtualization. Students will apply the knowledge and skills required to troubleshoot, configure, and manage common network devices; establish basic network connectivity; and implement network security, standards, and protocols. Preparation for the CompTIA Network+ certification exam. (C-ID ITIS 150) (CSU)

IT 0110. Installing, Configuring and Administering a Client OS
Units: 3
Formerly known as CIS 141
Advisory: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Setup and support for a desktop operating system using a current desktop operating system in a networked environment. Creation of local and domain-level accounts, creation of shared resources, use of network services, remote access, resource management and monitoring, and security considerations. (CSU)

IT 0115. Server Systems Administration
Units: 3
Formerly known as CIS 142
Prerequisite: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Provides knowledge and skills required to build, maintain, troubleshoot and support Microsoft server OS technologies. Covers environmental issues, disaster recovery, physical/software security procedures, industry terminology and concepts, server roles, specializations, and interaction within the overall computing environment. (C-ID ITIS 155) (CSU)

IT 0120. Introduction to Information Systems Security
Units: 3
Formerly known as CIS 147
Prerequisite: Completion of IT 105 with grade of "C" or better
Advisory: Completion of IT 115 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational Cybersecurity and Risk Management. Preparation for the CompTIA Security+ certification exams. (C-ID ITIS 160) (CSU)

IT 0125. Switching, Routing and Wireless Essentials
Units: 3
Formerly known as CIS 66
Prerequisite: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Focuses on switching technologies and router operations that support small-to-medium business networks and includes Wireless Local Area Networks (WLANs) and security concepts. Students learn key switching and routing concepts. Students will perform basic network configuration and troubleshooting, identify and mitigate Local Area Network (LAN) security threats, and configure and secure a basic WLAN. (CSU)

IT 0130. Cisco CCNA 3 Enterprise Networking, Security and Automation
Units: 3
Prerequisite: Completion of IT 125 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
This is the third of three courses that are aligned to the CCNA Certification Exam. In Enterprise Networking, Security, and Automation, students will take the skills and knowledge that they learned in the previous two courses and apply them to wide area networks (WANs). WANs are large, complex networks that require advanced understanding of network operation and security. This class also introduces students to two important areas of networking: virtualization and automation. By the end of this course, students will be able to configure, troubleshoot, and secure enterprise network devices. Students will be versed in application programming interfaces (APIs) and the configuration management tools that make network automation possible. When students have completed ENSA, they will have gained the practical experience they need to prepare for the CCNA certification exam. (CSU)

IT 0140. Implementing Network Security and Firewalls
Units: 3
Prerequisite: Completion of IT 120 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Firewalls are one of the primary tools used to prevent unauthorized access to corporate networks. Students will learn how to design and configure firewalls to allow access to key services while maintaining an organization's security, as well as how to implement firewall-to-firewall Virtual Private Networks (VPNs). (CSU)

IT 0145. Introduction to Cybersecurity: Ethical Hacking
Units: 3
Formerly known as CIS 152
Prerequisite: Completion of IT 120 with grade of "C" or better
Advisory: Completion of CSCI 50 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Immerses IT Professionals in hands-on intensive environment providing in-depth knowledge and experience with current essential security systems. Provides understanding of perimeter defenses and leads to scanning and attacking networks; no real networks are harmed. Students learn how intruders escalate privileges and the steps to be taken to secure a system. Also covers Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows, and Virtual Creation. Focus includes legal and regulatory requirements, ethical issues, basic methodology and technical tools used for ethical hacking and penetration tests. Students establish a pre-test agreement with the enterprise, discover and exploit vulnerabilities, participate as a member of a pen test team and prepare a penetration test report. (CSU)

IT 0150. Principles of Cybersecurity Analysis
Units: 3
Formerly known as CIS 153
Prerequisite: Completion of IT 120 with grade of "C" or better or CompTIA Security+ certification as determined by the Information Technology Department Chair
Hours: 72 (54 lecture, 18 laboratory)
Learn how to configure and use threat detection tools, perform data analysis, and interpret the results to identify vulnerabilities, threats, and risks to an organization with the end goal of securing and protecting applications and systems within an organization. This course covers skills used by Information Security (IT) security analysts, vulnerability analysts, or threat intelligence analysts with a technical, "hands-on" focus on IT security analytics. Covers exam objectives relating to the CompTIA Cybersecurity Analyst (CSA+) industry certification. (CSU)

IT 0165. Computer Forensics Fundamentals
Units: 3
Also known as ADMJ 88
Advisory: Completion of ADMJ 54 and IT 120 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduction to the methods used to properly conduct a computer forensics investigation, beginning with a discussion of ethics, while mapping the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools. (C-ID ITIS 165) (CSU)

IT 0170. AWS Cloud Foundations
Units: 3
Hours: 72 (54 lecture, 18 laboratory)
Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. This course provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Can be used to prepare for the AWS Cloud Practitioner exam. (CSU)

IT 0171. CompTIA Cloud+ Computing Concepts and Practices
Units: 3
Prerequisite: Completion of IT 105 with grade of "C" or better
Advisory: Completion of IT 110 and IT 115 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Introduces students to cloud management concepts including cloud architecture and design, cloud security, deployment, operations and support, and cloud troubleshooting. This course helps prepare students for the CompTIA Cloud+ CV0-003 exam and for entry into the workforce in the Cloud market. (CSU)

IT 0175. AWS Cloud Architecting
Units: 3
Prerequisite: Completion of IT 105 and IT 170 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Covers the fundamentals of building IT infrastructure on Amazon Web Services (AWS). The course is designed to teach solutions architects how to optimize their use of the AWS Cloud by understanding AWS services and how they fit into cloud-based solutions. Although architectural solutions can differ depending on the industry, type of application, and size of the business, this course emphasizes best practices for the AWS Cloud that apply to all of them. It also recommends various design patterns to help you think through the process of architecting optimal IT solutions on AWS. Throughout the course, students will explore case studies that showcase how some AWS customers have designed their infrastructures and the strategies and services that they have implemented. Finally, this course provides opportunities for students to build a variety of infrastructures through a guided, hands-on approach. (CSU)

IT 0176. Cloud Computing - Amazon Web Services System Operations
Units: 3
Prerequisite: Completion of IT 115 and IT 175 with grades of "C" or better
Advisory: Completion of IT 170 and/or IT 171 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Helps students identify and develop the skills needed for implementing cloud initiatives. Students will gain experience deploying, managing, and operating workloads on the AWS cloud platform. This course helps prepare students for the AWS Certified SysOps Administrator - Associate industry certification exam. (CSU)

Italian (ITAL)

ITAL 0001. Elementary Italian - Level I
Units: 4
Hours: 72 lecture
Intensive instruction in understanding, speaking, reading, and writing elementary Italian. Basic grammar, regular and some irregular verbs in the present tense of the indicative mood. Daily practice in speaking and writing. Corresponds to two years of high school study. (CSU, UC)

ITAL 0002. Elementary Italian - Level II
Units: 4
Prerequisite: Completion of ITAL 1 or two years of high school Italian with grade(s) of "C" or better
Hours: 72 lecture
Intensive basic grammar, greater emphasis on speaking and writing. Emphasis on culture and events of the areas where Italian is spoken. (CSU, UC)

ITAL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Japanese (JPN)

JPN 0001. Elementary Japanese - Level I
Units: 4
Hours: 72 lecture
Introduction to Japanese language; reading, writing, with emphasis on speaking. Pronunciation, sound system, intonation, basic vocabulary and grammar of spoken Japanese. Grammar emphasis is word order, postpositions, and some conjugation in simple sentences. Introduction to geography, customs and culture of Japan. Students required to learn Hiragana script and Kanji characters. Corresponds to two years of high school study. (CSU, UC)

JPN 0002. Elementary Japanese - Level II
Units: 4
Prerequisite: Completion of JPN 1 or two years of high school Japanese with grade of "C" or better
Hours: 72 lecture
Continuation of JPN 1 with increased emphasis on reading, writing and grammatical forms. Stresses vocabulary, idioms, postpositions, and grammar. Study of more complex subordinate phrases and clauses. Includes Hiragana, as well as, Katakana and simple Kanji ideographs. Further study of geography, customs, and culture of Japan. (CSU, UC)

JPN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Kinesiology (KIN)

KIN 0003A. Cardio Fitness - Level I
Units: 0.5-2
Formerly known as PHED 3A
Hours: 36 activity per unit
Designed to educate students in the areas of basic aerobic and cardiovascular fitness using a variety of fitness equipment, as well as evaluate and improve present aerobic fitness level. (CSU, UC-with unit limitation)

KIN 0003B. Cardio Fitness - Level II
Units: 0.5-2
Formerly known as PHED 3B
Hours: 36 activity per unit
Designed to educate students in the areas of aerobic circuit training as well as evaluate and improve present aerobic fitness level. (CSU, UC-with unit limitation)

KIN 0004. Cross Training
Units: 2
Formerly known as PHED 87
Hours: 54 (18 lecture, 36 activity)
Daily physical fitness training utilizing aerobic and anaerobic training methods including: swim workouts, resistance training, stationary exercise equipment and running. (CSU, UC-with unit limitation)

KIN 0005A. Weight Training
Units: 0.5-2
Formerly known as PHED 5A
Hours: 36 activity per unit
Weight training as a lifetime fitness activity; progressive resistance exercises with free weights and weight machines to develop muscular strength and endurance. (CSU, UC-with unit limitation)

KIN 0005B. Strength Training - Circuit and Power Lifting
Units: 0.5-2
Formerly known as PHED 5B
Hours: 36 activity per unit
Strength training exercises in progressive circuit and power lifting with free weights and weight machines. Designed to develop core strength, muscular strength and endurance. (CSU, UC-with unit limitation)

KIN 0005C. Weight Training - Advanced
Units: 0.5-2
Hours: 36 activity per unit
Advanced instruction in weight lifting for physical fitness as well as Olympic weight lifting, power lifting, body building, and lifting for athletic competition. (CSU, UC-with unit limitation)

KIN 0006. Physical Fitness
Units: 0.5-2
Formerly known as PHED 6
Hours: 36 activity per unit
Emphasis on life-long exercise principles using a variety of muscular strength and endurance, aerobics and flexibility workouts. Examines cardio-respiratory fitness, exercise principles, and how to design and evaluate fitness programs/workouts. Students experience different types of workouts and are encouraged to apply the information to their own body and level of conditioning. (CSU, UC-with unit limitation)

KIN 0007. Aerobic Fitness
Units: 0.5-2
Formerly known as PHED 7
Hours: 36 activity per unit
Creative exercises to promote a wide range of flexibility, muscular strength and endurance, and cardiovascular endurance. Includes a choreographed warm-up, aerobic segment, floorwork, and warm-down utilizing a variety of calisthenic and dance techniques and skills. (CSU, UC-with unit limitation)

KIN 0009. Cardio Kickboxing
Units: 0.5-2
Formerly known as PHED 13
Hours: 36 activity per unit
An intense non-contact cardiovascular workout utilizing kicking and punching techniques for differing fitness levels to include: warm-up, cardiovascular segment, muscle conditioning exercises, stretching, and cool down. (CSU, UC-with unit limitation)

KIN 0010. Fitness and Improved Health Boot Camp
Units: 2-3
Formerly known as PHED 22
Hours: 54 (18 lecture, 36 activity) 2 units; 72 (36 lecture, 36 activity) 3 units
This course encourages a healthy attitude toward exercise, wellness, and nutrition. Topics include assessing and improving fitness levels, as well as nutrition, healthy living, and active lifestyle strategies that are involved in attaining and maintaining appropriate levels of wellness. This course includes a variety of fitness activities that provide a new approach to each workout including but not limited to High Intensity Interval Training (HIIT) based cardio, cross training, body weight exercises, and muscle strength and endurance. Periodized workouts are developed to optimize fitness levels in an individual student-centered approach. (CSU, UC-with unit limitation)

KIN 0011. Instructional Methods for Group Fitness
Units: 3
Formerly known as PHED 85
Hours: 72 (36 lecture, 36 activity)
Addresses methods of instruction in leading group exercise in health clubs, resorts, institutions, corporate programs or medically supervised exercise programs. Topics include movement choreography, communication and cueing, music selection and counting. Practical application of kinesiology and muscle physiology are used to design various music based class formats and other current group fitness trends. (CSU)

KIN 0012. Instructional Methods for Personal Trainers
Units: 3
Hours: 72 (36 lecture, 36 activity)
Emphasizes the development of instructional skills based on learning modalities and pedagogical practices for individuals working as a personal trainer in the fitness industry. Activities focused on those used to develop muscular endurance, muscular strength, muscular hypertrophy, and flexibility using various equipment options. Practical application of exercise science principles in anatomy, physiology, kinesiology, and exercise physiology used for exercise instruction and program design. (CSU)

KIN 0018. Peaceful Self Defense
Units: 0.5-2
Formerly known as PHED 69
Hours: 36 activity per unit
Introduction to fundamental principles, concepts, and theories of martial arts. Includes basic self defense, nonviolent self defense strategies, cardio conditioning, strength building exercises, flexibility training, nutrition, deep relaxation, and meditation with a focus on mind-body connection as it pertains to the art of physical combat. Benefits students of all skill levels. (CSU, UC-with unit limitation)

KIN 0019. Basic Self Defense
Units: 1-2
Formerly known as PHED 66
Hours: 36 activity per unit
Basic level course designed to teach students how to recognize and avoid potential threats, and to mentally and physically prepare themselves to respond to physical attacks if they should occur. Covers responses to a variety of attack situations including pushes, grabs, chokes, punches, kicks, rear attacks, ground attacks, and assaults with handguns, long-guns and knives. Special emphasis is placed on takedowns, disarming and controlling attackers. (CSU, UC-with unit limitation)

KIN 0020. Multi Self Defense System
Units: 0.5-2
Formerly known as PHED 80
Hours: 36 activity per unit
A multi combat self defense system combining the martial arts of Escrima (stick and knife fighting), Jujitsu, and Kenpo. Focus on teaching application of principles leading to utilizing ordinary items to help defend oneself. Emphasis on strengthening the body and improving endurance. (CSU, UC-with unit limitation)

KIN 0023. Tai Chi
Units: 0.5-2
Formerly known as PHED 14
Hours: 36 activity per unit
Ancient Chinese martial art that improves balance and coordination, promotes health, and reduces stress. Emphasizes meditation in motion and self-defense. Focus on mind/body harmony through balancing body energy (chi). (CSU, UC-with unit limitation)

KIN 0024. Self-Defense for Personal Safety
Unit: 1.5
Formerly known as PHED 63
Hours: 54 (18 lecture, 36 laboratory)
Provides individuals with information about personal safety and develops skills to avoid harm. Covers awareness in a variety of locations, such as home, workplace, school, online environment, car and parking lot. Topics include avoidance and awareness of potential dangers, appropriate responses, self-defense strategies (physical and non-physical), legal aspects of self-defense, physical fitness, sensitivity to violent crime victims, and the psychological factors involved in victimization. (CSU)

KIN 0026. Badminton
Units: 0.5-2
Formerly known as PHED 11
Hours: 36 activity per unit
Fundamental techniques of badminton skills including: service, drop shots, clear shots, forehand and backhand strokes. Covers strategy of singles and doubles play, rules, and game etiquette. Provides an opportunity for competition. (CSU, UC-with unit limitation)

KIN 0027. Recreational Basketball
Units: 0.5-2
Formerly known as PHED 23
Hours: 36 activity per unit
Introduction to basketball as a recreational/cardio sport, designed to assist students in acquiring basic skills and increasing aerobic fitness, balance, and advanced fitness levels, while actively participating in basketball activities. (CSU, UC-with unit limitation)

KIN 0028. Independent Study
Units: 1-3
Formerly known as PHED 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

KIN 0029. Flag Football
Units: 0.5-2
Formerly known as PHED 29
Hours: 36 activity per unit
Fundamental theory and practice of flag football skills and knowledge including: passing, kicking, receiving, blocking, defending and rushing. Covers the strategy of team play, rules and etiquette. Provides the opportunity for skill development and competition. (CSU, UC-with unit limitation)

KIN 0030. Golf
Units: 0.5-2
Formerly known as PHED 10
Hours: 36 activity per unit
Development of sufficient basic proficiency in golf to recognize and enjoy it as a lifetime activity; includes U.S.G.A. rules, etiquette and the fundamental mechanics involved in the use of irons and woods. (CSU, UC-with unit limitation)

KIN 0031A. Soccer Level I
Units: 0.5-2
Formerly known as PHED 27A
Hours: 36 activity per unit
Fundamental theory and practice, including passing, dribbling, shooting, formations, and strategy. Primary emphasis on the application of skills, rules, and introduction to strategy in game play. (CSU, UC-with unit limitation)

KIN 0031B. Soccer Level II
Units: 0.5-2
Formerly known as PHED 27B
Hours: 36 activity per unit
Tactical theory and practice, including small group attacking, small group defending, team attacking and team defending. Primary emphasis on tactics and strategy within the game. (CSU, UC-with unit limitation)

KIN 0032. Tennis
Units: 0.5-2
Formerly known as PHED 16
Hours: 36 activity per unit
Fundamental techniques of service, forehand, volleys, and backhand. Covers strategy, rules, and etiquette. Provides an opportunity for competition in both singles and doubles play. (CSU, UC-with unit limitation)

KIN 0032B. Advanced Tennis
Units: 0.5-2
Hours: 36 activity per unit
Advanced techniques of service, forehand, and backhand. Also advanced return of serve techniques and strategies. Provides an opportunity for more intense competition in both singles and doubles play. (CSU, UC-with unit limitation)

KIN 0033. Volleyball
Units: 0.5-2
Formerly known as PHED 26
Hours: 36 activity per unit
Fundamental skills, rules, and strategies of volleyball. Primary emphasis on the application of skills and strategy needed to play volleyball. (CSU, UC-with unit limitation)

KIN 0034. Beach Volleyball
Units: 0.5-2
Hours: 36 activity per unit
Provides instruction and practice in fundamental beach volleyball techniques. Individual skills, such as passing, setting, hitting, blocking and serving, as well as team offensive and defensive strategies. (CSU, UC-with unit limitation)

KIN 0035A. Futsal - Level I
Units: 0.5-2
Hours: 36 activity per unit
Introductory course includes game strategy, tactics, and laws of the game. Futsal is a modified form of soccer played indoors on a hard surface with a low bouncing ball. Students develop basic skills in dribbling, passing, heading, shooting and receiving, along with offensive and defensive strategies. (CSU, UC-with unit limitation)

KIN 0035B. Futsal - Level II
Units: 0.5-2
Advisory: Completion of KIN 35A with grade of "C" or better
Hours: 36 activity per unit
Students develop advanced tactical theory and practice, including small group attacking, small group defending, team attacking and team defending. Primary emphasis on tactics and strategy within the game. (CSU, UC-with unit limitation)

KIN 0036A. Beginning Pickleball
Units: 0.5-2
Hours: 36 activity per unit
Introduces the fundamental skills required to be a proficient beginner pickleball player. Students will develop their understanding and proficiency in the game of Pickleball through fundamental techniques, strategies, and game play scenarios. Emphasis will be placed on teaching stroke mechanics, footwork, and court positioning to enhance overall performance. (CSU, UC-with unit limitation)

KIN 0036B. Intermediate Pickleball
Units: 0.5-2
Hours: 36 activity per unit
Builds upon the fundamental skills acquired in the beginner course. Students will further develop their understanding and proficiency in the game of Pickleball through advanced techniques, strategies, and game play scenarios. Emphasis will be placed on refining stroke mechanics, footwork, and court positioning to enhance overall performance. (CSU, UC-with unit limitation)

KIN 0040. Water Exercise for Fitness
Units: 0.5-2
Formerly known as PHED 8
Hours: 36 activity per unit
Designed to improve muscle tone and cardiovascular fitness. Exercises conducted in the water, utilizing the resistance of water against body movement. Strength and conditioning exercises are integrated with aerobic exercises so that students may have the potential for maximum benefit in a short time. Suitable for students with injuries or physical limitations. (CSU, UC-with unit limitation)

KIN 0041. Fundamentals of Swimming
Units: 0.5-2
Formerly known as PHED 36
Hours: 36 activity per unit
Development of physical and mental adjustment to the water. For non-swimmers through advanced. Basic instruction in swimming, use of swimming equipment, water safety skills, water entry and exit, and water exercises and techniques. Instruction and practice in developing aerobic fitness. (CSU, UC-with unit limitation)

KIN 0042. Swimming Conditioning
Units: 0.5-2
Formerly known as PHED 39
Hours: 36 activity per unit
Development of muscular and cardiovascular endurance. Instruction in distance training, interval training, water exercise, sprint training, stroke techniques, equipment usage, and water games associated with swimming. (CSU, UC-with unit limitation)

KIN 0050A. Ballet I
Units: 0.5-2
Formerly known as PHED 56A
Hours: 36 activity per unit
Introduction to fundamentals of classical ballet focusing on the development of technique through proper alignment, flexibility and strength. Elements of history, terminology and appreciation of ballet as an art form are explored. (CSU, UC)

KIN 0050B. Ballet II
Units: 0.5-2
Formerly known as PHED 56B
Advisory: Completion of KIN 50A with grade of "C" or better
Hours: 36 activity per unit
Continuation of classical ballet training, exploring elements of ballet history, musicality, terminology, technique, and performance. Pointe technique and character dance are also presented. (CSU, UC)

KIN 0051. Jazz Dance
Units: 0.5-2
Formerly known as PHED 54
Hours: 36 activity per unit
Fundamentals of jazz dance with emphasis on ballet basics, flexibility, coordination, weight transference, isolation, floor and barre work, including jazz history, composition basics, stylization, and improvisation. (CSU, UC)

KIN 0053. Ballroom Dance
Units: 0.5-2
Formerly known as PHED 51D
Hours: 36 activity per unit
Basic skills in social and ballroom dance steps, including Swing, Salsa, Tango, Waltz, Fox Trot, Cha-Cha, Rumba, Mambo, and Samba. Includes dance etiquette, development of rhythm, and the history of social dances. (CSU, UC)

KIN 0054. Modern Dance
Units: 0.5-2
Formerly known as PHED 53
Hours: 36 activity per unit
Development and improvement in body alignment, flexibility, strength endurance, balance coordination, relaxation coordination and modern dance techniques so that the body can be used as an instrument of creative expression. (CSU, UC)

KIN 0055. Line Dance
Units: 0.5-2
Formerly known as PHED 51C
Hours: 36 activity per unit
Basic skills in line dancing. Traditional, past and current dances are taught. Includes development of rhythm and the history of line dances. (CSU, UC)

KIN 0062. Fundamentals of Yoga
Units: 0.5-2
Formerly known as PHED 55
Hours: 36 activity per unit
Development of basic Yoga postures, breathing practices, stretching, and relaxation techniques as a method to improve flexibility, decrease stress and improve physical and mental well-being. (CSU, UC-with unit limitation)

KIN 0065. Yoga History and Culture
Units: 3
Hours: 54 lecture
Designed as a survey of the history and culture of yoga, both as a historical practice and a physical discipline. Students will learn about yoga's transformation from ancient to contemporary times, Ayurveda nutrition and yoga as a career option. (letter grade only) (CSU)

KIN 0066. Yoga Pedagogy Lecture
Units: 3
Hours: 54 lecture
Designed as an introduction to teaching the physical discipline of Hatha yoga. Students will learn about different types of Hatha yoga, anatomy, injury prevention, cueing, ethics, and development of their own yoga class. (CSU)

KIN 0068. Introduction to Meditation
Units: 0.5-2
Formerly known as PHED 68
Hours: 36 activity per unit
Exploration of the body/mind connection through techniques of visualization, affirmation, concentration and meditation. (CSU, UC-with unit limitation)

KIN 0069. Mat Pilates
Units: 0.5-2
Formerly known as PHED 19
Hours: 36 activity per unit
Designed to improve "core" muscles of the torso, improve posture, suppleness, and elongate the body. Targets legs,back, hips, and abdominal muscle groups. Includes warm up, muscle strengthening exercises, muscle endurance exercises, flexibility training, and cool down. Student must provide Yoga or Pilates "sticky" mat. (CSU, UC-with unit limitation)

KIN 0070. Yoga Pedagogy Lab
Unit: 1
Prerequisite: Concurrent enrollment in or completion of KIN 66 with grade of "C" or better
Hours: 54 laboratory
Designed as an introduction to the physical discipline of Hatha yoga. Students will learn alignment, adjustments, and cueing for yoga postures. Students will also develop and teach their own yoga class. (CSU)

KIN 0071. Adapted Aquatics
Units: 0.5-2
Formerly known as PHED 73
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
For physically and/or developmentally challenged individuals, providing individually prescribed exercises, adaptive and/or modified swimming, and exercises designed to improve ambulation, balance, and cardiorespiratory endurance. (CSU, UC-with unit limitation)

KIN 0072. Adapted Aerobic Fitness
Units: 0.5-2
Formerly known as PHED 74
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
Aerobic fitness training for individuals with developmental and or physical challenges. Emphasis on improving individual levels of aerobic fitness through the use of fitness machines. Class activities adapted and modified to meet individual needs. (CSU, UC-with unit limitation)

KIN 0073. Adapted Individualized Exercises
Units: 0.5-2
Formerly known as PHED 72
Advisory: Physician's approval recommended for participation
Hours: 36 activity per unit
The purpose of this class is to improve joint flexibility, muscle endurance and muscle strength in students having difficulty with ambulation, balance, and/or motor skills. Individualized Progressive Resistance exercise programs will be developed based on the student's physical and or developmental abilities, physician's recommendation, and student's personal goals. (CSU, UC-with unit limitation)

KIN 0080. ACE Personal Trainer Preparation
Units: 3
Formerly known as PHED 32
Hours: 54 lecture
Synthesis of principles and theories in exercise physiology, kinesiology, nutrition, and basic behavioral sciences. Application of principles to physical fitness testing and exercise program design and implementation. Prepares students for the American Council on Exercise (ACE) personal trainer certification examination. (CSU)

KIN 0081. Introduction to Kinesiology
Units: 3
Formerly known as PHED 81
Hours: 54 lecture
Introduces the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology are discussed along with career opportunities in teaching, coaching, allied health, and fitness professions. (C-ID KIN 100) (CSU, UC-with unit limitation)

KIN 0082. Sports Officiating
Units: 2
Formerly known as PHED 82
Hours: 54 (36 lecture, 18 laboratory)
Officiating team and individual sports. Emphasizes officiating concepts, skills, fundamentals and etiquette of basketball, baseball/softball, volleyball and soccer. Students are required to perform physical activities associated with officiating. (CSU)

KIN 0083. Physiology of Fitness
Units: 3
Formerly known as PHED 83
Hours: 54 lecture
Introductory course in sports physiology with special emphasis on body systems and how each adapts and responds to physical movement. Review of training strategies implemented to increase functionality of organ systems to improve physical fitness and performance. Provides students with exposure to a variety of performance goals and fitness levels including exercise for health, fitness, recreation, and sports competition. (CSU, UC-with unit limitation)

KIN 0084. Care and Prevention of Athletic Injuries
Units: 3
Formerly known as PHED 84
Hours: 54 lecture
Designed for students interested in the prevention, evaluation and care of athletic injuries. Introduction to theoretical concepts and practical skills necessary for the proper and effective management of common athletic injuries and medical conditions. Includes the prevention, recognition, evaluation, management and rehabilitation of injuries, taping techniques, and emergency procedures. (CSU, UC)

KIN 0086. Psychology of Sport
Units: 3
Formerly known as PHED 86
Hours: 54 lecture
Surveys the theory, research, and applications of psychology pertaining to exercise and sports. Presents current topics and issues relevant to sport psychology. Designed for students interested in coaching, athletic training and personal performance. (CSU, UC)

KIN 0087A. Theory of Baseball
Units: 3
Formerly known as PHED 89A
Hours: 54 lecture
Study and analysis of competitive baseball. Emphasis on defense, offense, pitching, base running, and team strategy. Designed for students with baseball experience and/or the desire to coach baseball at any level. (CSU, UC-with unit limitation)

KIN 0087B. Theory of Basketball
Units: 3
Formerly known as PHED 89B
Hours: 54 lecture
Study and analysis of competitive basketball. Emphasis on defense, offense, individual and team skill development, rules and games preparation and strategy. Designed for students with basketball experience and/or the desire to coach basketball at any level. (CSU, UC-with unit limitation)

KIN 0087C. Theory of Football
Units: 3
Formerly known as PHED 89F
Hours: 54 lecture
Study and analysis of competitive football. Emphasis on defense, offense, special teams and strategies. Designed for students with football experience and/or the desire to coach football at any level. (CSU, UC-with unit limitation)

KIN 0087D. Theory of Soccer

Units: 3

Formerly known as PHED 89H

Hours: 54 lecture

Theories of offensive and defensive strategies in competitive soccer. Includes study, analysis, and critique of skills and strategies in preparation for all levels of soccer competition. Designed for students with soccer experience and/or the desire to coach soccer at any level. (CSU, UC-with unit limitation)

KIN 0087E. Theory of Softball

Units: 3

Formerly known as PHED 89C

Hours: 54 lecture

Study and analysis of competitive softball. Emphasis on defense, offense, pitching, baserunning, team strategies, stats recording and scorekeeping. Designed for students with softball experience and/or the desire to coach softball at any level. (CSU, UC-with unit limitation)

KIN 0087F. Theory of Volleyball

Units: 3

Formerly known as PHED 89G

Hours: 54 lecture

Study and analysis of competitive volleyball. Emphasis on defense, offense, individual and team skill development, rules and games preparation and strategy. Designed for students with volleyball experience and/or the desire to coach volleyball at any level. (CSU, UC-with unit limitation)

KIN 0088. Introduction to Coaching Team Sports

Units: 3

Formerly known as PHED 88

Hours: 54 lecture

Designed for students interested in coaching team sports. Emphasizes the components of team concepts and the organizational skills needed to implement and conduct a team sport program. (CSU, UC-with unit limitation)

KIN 0090. Introduction to Training and Conditioning for Sports

Units: 3

Hours: 54 lecture

Introduces students to the concepts of training and conditioning for sports. Topics will include foundational principles of training, stages of athletic development, motor skills training, and designing programs specific to the needs of the sport. (CSU)

KIN 0095. Internship in Kinesiology

Units: 0.5-4

Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

KIN 0096. Sports Activities

Units: 0.5-2

Formerly known as PHED 93

Hours: 36 activity per unit

Intra-class competition in the group activities of basketball, flag football, volleyball, soccer, ultimate sports and softball. (CSU, UC-with unit limitation)

KIN 0100. Coaching the Young Athlete

Units: 3

Hours: 54 lecture

Students will be introduced to the challenges of age and gender specific considerations in training of young athletes. Topics include training guidelines for young athletes, stages of athletic development, long-term training plans, specific strategies of motivation related to age groups, and providing an environment that promotes learning and fun. (CSU)

KIN 0101. Sport First Aid for Coaches

Units: 3

Hours: 54 lecture

Provides new and experienced coaches with the action steps for the care and prevention of athletic injuries and illnesses. Includes performing physical assessments; strategies for reducing athletes' risk of injury or illness; developing a medical emergency plan; returning athletes to play; and educating athletes and coaches on the effects and dangers of performance enhancers. (CSU)

KIN 0802. Adaptive Motor Skill Development

Units: 0

Formerly known as PHED 802

Advisory: Physician's approval recommended for participation

Hours: 54 laboratory

Physical activities to meet the varied needs of substantially disabled students. Activities include team sports, jogging/walking, weight training, Special Olympic training, swimming, and yoga. May be repeated. (noncredit)

Learning Disabilities (LRDS)

LRDS 0610. Learning Disabilities Orientation

Units: 0.5

Hours: 9 lecture

Orientation to the Learning Disabilities program and assessment of learning strengths and weaknesses to determine eligibility for learning disability services. Procedures and services offered follow the criteria mandated by the California Community College Chancellor's Office Learning Disabilities Eligibility and Service Model. Students must complete an application for learning disability services and be approved for enrollment by the instructor. Students are asked to provide relevant documentation related to eligibility for services. (pass/no pass grading) (not degree applicable)

Lesbian, Gay, Bisexual and Transgender Studies (LGBT)

LGBT 0001. Introduction to LGBT Studies/Queer Theory

Units: 3

Also known as WMST 2

Hours: 54 lecture

A broad and general exploration of Lesbian, Gay, Bisexual, Transgender, Queer Studies and its relationship to Feminism. Emphasis on Sexual Orientation/Gender Identity and Expression and their intersections with Race/Ethnicity, Class, the LGBT Rights movement in the United States and globally. (C-ID SJS 130) (CSU, UC)

LGBT 0002. Queer (LGBTIQ) Film History
Units: 3
Formerly known as HUM 26
Hours: 72 (36 lecture, 36 activity)
Historical representations of Lesbian, Gay, Bisexual, Transgender and Queer sexualities in mainstream commercial cinema, as well as underground and independent films, from the silent era to the present. Examines theoretical approaches to the study of queer cinema, the way social attitudes shape cultural representation, and the relationship between audience interpretation and filmmakers' intentions. An emphasis on the way that sexual orientation/gender identity intersects with race/ethnicity and socioeconomic background. (CSU, UC)

LGBT 0010. LGBT Narratives
Unit: 1
Hours: 18 lecture
Introduction to LGBT narratives including biographical, literary, scientific, political and visual cultural. Designed for students interested in Spectrum's Oral History Project. (not transferable)

LGBT 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

LGBT 0095. Internship in LGBT Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Library Science (LIBS)

LIBS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

LIBS 0095. Internship in Library Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Mathematics (MATH)

MATH 0010. Problem Solving
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture
Individual and small-group problem solving geared toward real life situations and nontraditional problems. Problem solving strategies include: draw a diagram, eliminate possibilities, make a systematic list, look for a pattern, guess and check, solve an easier related problem, subproblems, use manipulatives, work backward, act it out, unit analysis, use algebra, finite differences, and many others. Divergent thinking and technical communication skills of writing and oral presentation are enhanced. Designed to teach students to think more effectively and vastly increase their problem solving ability. (CSU)

MATH 0011. Data Science for All
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 108 (54 lecture, 54 laboratory)
Designed for students from any major, provides high-level understanding of how data, statistics, and inference are inter-related. Introduces the core concepts of data science, including statistical inference and computational thinking. Teaches critical concepts and skills in computer programming and statistical inference while working with real data, such as economic data, geographic data, and social networks. Prepares students to make more data-driven decisions, gaining experience with machine learning and with the practical application of statistical concepts like hypothesis testing, confidence intervals via bootstrapping, regression, inference for regression, and predictive modeling while considering the social issues surrounding data privacy and data ownership. (C-ID MATH 110) (CSU, UC)

MATH 0012. College Algebra
Units: 4,6
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture (4 units); 108 lecture (6 units)
Study of algebra topics beyond Intermediate Algebra; including functions, graphs, logarithms, systems of equations, analytic geometry, and sequences and series. (CSU-with unit limitation, UC-with unit limitation)

MATH 0012S. Just in Time Support for Math 12 College Algebra
Units: 2
Corequisite: Concurrent enrollment in Math 12
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from College Algebra. Intended for students who are concurrently enrolled in Math 12. Topics include competencies from Intermediate Algebra that are needed to understand the basics of College Algebra. (not degree applicable) (pass/no pass grading)

MATH 0013S. Just in Time Support for Introduction to Statistics
Units: 2
Corequisite: Concurrent enrollment in STAT C1000
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Introduction to Statistics. Intended for students who are concurrently enrolled in STAT C1000. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of descriptive data analysis including an introduction to technologies such as Desmos, Excel, Statcrunch, Minitab, SPSS or graphing calculators. Recommended for students taking STAT C1000 with little or no recent algebra knowledge. (not transferable) (not degree applicable) (pass/no pass grading)

MATH 0015. Discrete Mathematics
Units: 4
Prerequisite: Completion of MATH 30 with grade of "C" or better
Hours: 72 lecture
Study of set theory, relations and functions, logic, combinatorics and probability, algorithms, computability, matrix algebra, graph theory, recurrence relations, number theory including modular arithmetic. Various forms of mathematical proof are developed: proof by induction, proof by contradiction. (CSU, UC)

MATH 0016A. Calculus for Social and Life Sciences
Units: 4
Prerequisite: Completion of MATH 12 with grade of "C" or better or placement by matriculation assessment process
Advisory: Not recommended for students with grade of "C" or better in MATH 30
Hours: 72 lecture
Review of functions, limits, differentiation and integration of algebraic functions, calculus for exponential and logarithmic functions, applications of calculus in social and life sciences. This course is not intended for students majoring in mathematics, engineering, physics, or chemistry. (CSU, UC-with unit limitation)

MATH 0016B. Calculus for Social and Life Sciences
Units: 4
Prerequisite: Completion of MATH 16A or 30 with grade of "C" or better
Advisory: Completion of MATH 27 with grade of "C" or better
Hours: 72 lecture
Differentiation and integration of trigonometric functions, functions of several variables, partial derivatives, double integrals, introduction to differential equations, sequences and series, applications of calculus in the social and life sciences. (CSU, UC-with unit limitation)

MATH 0017. Concepts of Mathematics
Units: 3
Prerequisite: Completion of Intermediate Algebra and Geometry or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Exploration of mathematical patterns and relations, formulation of conjectures based on the explorations, proving (or disproving) the conjectures. Includes different problem solving techniques, number theory, probability, statistics, sequences and series, and geometry. Intended for students interested in elementary education. (CSU, UC-with unit limitation)

MATH 0017S. Concepts of Mathematics Support
Units: 2
Corequisite: Concurrent enrollment in Math 17
Hours: 36 lecture
Concurrent support for competency and concepts from Euclidean Geometry. Intended for students concurrently enrolled in Math 17. (not degree applicable) (pass/no pass grading)

MATH 0018. The Nature of Mathematics
Units: 3
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Introduces students to the art and application of mathematics in the world around them. Topics include mathematical modeling, voting and apportionment, and mathematical reasoning with applications chosen from a variety of disciplines. Not recommended for students entering elementary school teaching or business. (CSU, UC-with unit limitation)

MATH 0019. Mathematical Concepts for Elementary School Teachers
Units: 3
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 54 lecture
Focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including the real number system and its subsystems. The emphasis is on comprehension and analysis of mathematical concepts and applications of logical systems. (C-ID MATH 120) (CSU, UC)

MATH 0024. Modern Business Mathematics
Units: 3
Prerequisite: Two years of high school algebra or MATH D or MATH G with grade(s) of "C" or better, or placement by matriculation assessment process
Hours: 54 lecture
Applications of mathematics in economics and business contexts. Topics include tables and graphs, functions, finance (interest and exponential models), rates of change including applications and optimization, and linear programming. (CSU, UC)

MATH 0024S. Just in Time Support for Math 24 Modern Business Mathematics
Unit: 1.5
Corequisite: Concurrent enrollment in Math 24
Hours: 27 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Modern Business Mathematics. Intended for students who are concurrently enrolled in MATH 24. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 24 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

MATH 0027. Trigonometry
Units: 4
Formerly known as MATH 8
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Hours: 72 lecture
Fundamentals of trigonometry. Topics include review of algebraic functions, definitions of trigonometric and circular functions, graphs, identities and applications. Other material includes solving trigonometric equations, solving triangles using the Laws of Sines and Cosines, parametric equations, vectors, polar coordinates and graphs, and polar representations of complex numbers. (CSU)

MATH 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

MATH 0029. Pre-Calculus Mathematics
Units: 4
Prerequisite: Completion of MATH 27 with grade of "C" or appropriate placement
Hours: 72 lecture
Study of polynomials, rational functions, exponential and logarithmic functions, trigonometric functions, systems of linear equations, rectangular and polar coordinates, conic sections, complex number systems, and sequences and series. (CSU, UC-with unit limitation)

MATH 0030. Analytical Geometry and Calculus I
Units: 4
Prerequisite: Completion of MATH 12 and MATH 27, or MATH 29 with grades of "C" or better, or appropriate placement
Hours: 72 lecture
Introduction to differential and integral calculus. Content includes limits, continuity, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic and other transcendental functions; as well as application problems. (C-ID MATH 210) (combined with MATH 31, C-ID MATH 900S) (CSU, UC-with unit limitation)

MATH 0030S. Just in Time Support for Math 30 Calculus I
Units: 2
Corequisite: Concurrent enrollment in Math 30
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from Calculus I. Intended for students who are concurrently enrolled in Math 30. Topics include competencies from College Algebra and Trigonometry that are needed to understand the basics of Calculus. (CSU)

MATH 0031. Analytical Geometry and Calculus II
Units: 4
Prerequisite: Completion of MATH 30 with grade of "C" or better
Hours: 72 lecture
Continuation of MATH 30. Content includes techniques of integration, improper integrals, applications of integration, infinite series, parametric equations and polar coordinates. (C-ID MATH 220) (combined with MATH 30, C-ID MATH 900S) (CSU, UC-with unit limitation)

MATH 0031S. Just in Time Support for Math 31 Calculus II
Units: 2
Corequisite: Concurrent enrollment in Math 31
Hours: 36 lecture
Just in time support covering core prerequisite skills, competencies, and concepts from Calculus II. Intended for students who are concurrently enrolled in Math 31. Topics include competencies from foundational skills in algebra, trigonometry, and first semester calculus that are needed to understand the basics of Calculus II. (CSU)

MATH 0032. Analytical Geometry and Calculus III
Units: 4
Prerequisite: Completion of MATH 31 with grade of "C" or better
Hours: 72 lecture
Continuation of MATH 31. Vectors and analytic geometry in the plane and space; functions of several variables; partial differentiation, multiple integrals, and application problems; vector functions and their derivatives; motion in space; and surface and line integrals, Stokes' and Green's Theorems, and the Divergence Theorem. (C-ID MATH 230) (CSU, UC)

MATH 0033. Differential Equations and Linear Algebra
Units: 6
Prerequisite: Completion of MATH 31 with grade of "C" or better
Advisory: Completion of MATH 32 with grade of "C" or better strongly recommended
Hours: 108 lecture
First and second order ordinary differential equations, linear differential equations, numerical methods and series solutions, Laplace transforms, modeling and stability theory, systems of linear differential equations, matrices, determinants, vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors. (C-ID MATH 910S) (CSU, UC)

MATH 0042. Business Calculus
Units: 4
Prerequisite: Completion of Intermediate Algebra or equivalent with grade of "C" or better, or appropriate placement
Advisory: Completion of MATH 12 strongly recommended, especially for students who have not recently taken Intermediate Algebra
Hours: 72 lecture
Introduction to differential and integral calculus with particular emphasis on applications in the fields of business, economics, and social sciences. Includes: concepts of a function, limits, derivatives, integrals of polynomial, exponential and logarithmic functions, optimization problems, and calculus of functions of more than one variable. Recommended for Business Majors transferring to CSU, Sacramento. Not recommended for students with credit for MATH 30. (C-ID MATH 140) (CSU, UC-with unit limitation)

MATH 0042S. Just in Time Support for Math 42 Business Calculus
Units: 2
Corequisite: Concurrent enrollment in Math 42
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Business Calculus. Intended for students who are concurrently enrolled in MATH 42. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 42 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

MATH 0584. Math Success-Overcoming Math Anxiety
Unit: 1
Hours: 18 lecture
Designed to assist students to recognize common fears and misconceptions of mathematics and develop personal strategies to overcome math and test anxiety. Specific study skills and strategies are discussed. Individual math learning styles are analyzed. (not degree applicable)

MATH 0812S. Just in Time Support for Math 12 College Algebra
Units: 0
Corequisite: Concurrent enrollment in Math 12
Hours: 36 lecture
Just in time support covering the core prerequisite skills, competencies, and concepts from College Algebra. Intended for students who are concurrently enrolled in Math 12. Topics include competencies from Intermediate Algebra that are needed to understand the basics of College Algebra. (pass/no pass grading) (noncredit)

MATH 0813S. Just in Time Support for Introduction to Statistics
Units: 0
Corequisite: Concurrent enrollment in STAT C1000
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Elementary Statistics. Intended for students who are concurrently enrolled in STAT C1000. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of descriptive data analysis including an introduction to technologies such as Desmos, Excel, Statcrunch, Minitab, SPSS or graphing calculators. Recommended for students taking STAT C1000 with little or no recent algebra knowledge. (pass/no pass grading) (noncredit)

MATH 0824S. Just in Time Support for Math 24 Modern Business Mathematics
Units: 0
Formerly known as MATH 824
Corequisite: Concurrent enrollment in Math 24
Hours: 27 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Modern Business Mathematics. Intended for students who are concurrently enrolled in MATH 24. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 24 with little or no recent algebra knowledge. (noncredit)

MATH 0842S. Just in Time Support for Math 42 Business Calculus
Units: 0
Formerly known as MATH 842
Corequisite: Concurrent enrollment in Math 42
Hours: 36 lecture
Just in time support option covering the core prerequisite skills, competencies, and concepts for Business Calculus. Intended for students who are concurrently enrolled in Math 42. Topics include numeracy; computational skills; the vocabulary of algebra; simplification, manipulation and evaluation of expressions and functions; solving and graphing linear equations and inequalities in one and two variables; solving and graphing systems of equations in two variables; factoring; algebraic operations on polynomial and rational expressions. Recommended for students taking Math 42 with little or no recent algebra knowledge. (noncredit)

Mechatronics (MECH)

MECH 0001. The Science of Electronics
Units: 3
Formerly known as CIE 1
Hours: 54 lecture
Survey of electronics technology presented in the context of the principles of science. Application of the scientific method to topics ranging from basic circuits to microprocessors, including electronic music, robotics, electric vehicles, fiber optics, semiconductors, and medical imaging. Scientific, historical, political, and economic connections to electronics technology. (CSU)

MECH 0004. Fundamentals of Mechatronics
Units: 4
Formerly known as CIE 4
Hours: 108 (54 lecture, 54 laboratory)
Introduction to mechatronics, which combines electronics, mechanics, pneumatics, and hydraulics, under computer control; as applied to robotics and automation. Presented through hands-on, project-based experiments that demonstrate industrial applications. (CSU)

MECH 0008. Introduction to Electronics
Units: 3
Formerly known as CIE 8
Hours: 54 lecture
General principles, concepts, terminology, and applications of electronics in the context of mechatronics technology. (CSU)

MECH 0010. Fundamentals of Electronics
Units: 4
Formerly known as CIE 10
Advisory: Concurrent enrollment in MECH 14
Hours: 126 (54 lecture, 72 laboratory)
A fundamental study of electronic devices, circuits, and systems as applied to robotics, computers and industrial automation. Presented through hands-on, project-based experiments. (CSU)

MECH 0014. Fabrication Techniques
Units: 2
Formerly known as CIE 14
Advisory: Concurrent enrollment in MECH 10
Hours: 72 (18 lecture, 54 laboratory)
Introductory course covering the function and construction of electronic projects and equipment. Includes design and fabrication of enclosures, single and double-sided printed circuit boards, safe use of power and hand tools, through-hole, point-to-point and surface-mount soldering, rework techniques, and wiring. Research component vendors and develop a spreadsheet-based Bill Of Materials. (CSU)

MECH 0025. Computers for Robotics and Automation
Units: 4
Formerly known as CIE 25/CIS 25/CST 25
Hours: 108 (54 lecture, 54 laboratory)
Concentrated study of computer hardware and software as applied to industrial automation and robotics. Includes hardware and software installation, configuration, upgrading, diagnostics, troubleshooting, and repair. Topics include communication protocols, basic input/output system (BIOS), power-on self test (POST) procedures, disk operating system (DOS), Windows, Linux, and local area network (LAN) fundamentals. Industrial applications include data acquisition, and robotic control. (CSU)

MECH 0028. Independent Study
Units: 1-3
Formerly known as CIE 28
Hours: 54 laboratory hours per unit
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

MECH 0044. Mechatronic Processes and Materials
Units: 2
Formerly known as CIE 44
Hours: 72 (18 lecture, 54 laboratory)
Application of tools and materials required for design, installation and repair of mechatronic systems. Each student fabricates a final project applying system-based mechatronic principles and skills. (CSU)

MECH 0054. Mechatronics Systems
Units: 4
Formerly known as CIE 54
Prerequisite: Completion of MECH 4 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Full integration of mechatronic principles into complete closed-loop systems such as automated production equipment and industrial robots. Topics include sensors, optical encoders, analog-to-digital and digital-to-analog conversion, closed-loop AC and DC motor control, hydraulic power concepts, hydraulic motors, pneumatic and hydraulic valves and actuators and fluid power computer simulation tools. (CSU)

MECH 0090. Microcontroller Embedded Systems
Units: 4
Formerly known as CIE 90
Prerequisite: Completion of MECH 10 and MECH 14 with grades of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Study of microcontroller based embedded systems using industry standard hardware and development software. Topics and laboratory exercises covering system architecture, applications of embedded systems, real world interfacing, software development, test and troubleshooting techniques. (CSU)

MECH 0095. Internship in Mechatronics
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Music (MUS)

MUS 0002. Music Appreciation
Units: 3
Hours: 54 lecture
Foundational course recommended for all students seeking an understanding and enjoyment of music through listening, analysis, and evaluation. Discussion of musical elements, repertoire, genres, and instruments from music traditions across time and space. Study of the many roles of music in human life. Attendance at concerts and listening to a variety of music may be required. (C-ID MUS 100) (CSU, UC)

MUS 0003A. Ear Training I
Unit: 1
Prerequisite: Completion of MUS 10 with grade of "C" or better or equivalent knowledge of music notation
Advisory: Concurrent enrollment in MUS 6A and MUS 40A
Hours: 44 (18 lecture, 26 laboratory)
This course applies and develops materials of MUS 6A used for musical analysis and dictation of rhythms, intervals, chords and melodies plus sight singing of short, simple diatonic melodies. (C-ID MUS 125) (CSU, UC)

MUS 0003B. Ear Training II
Unit: 1
Prerequisite: Completion of MUS 3A with grade of "C" or better
Advisory: Concurrent enrollment in MUS 6B and MUS 40B
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic and harmonic materials of MUS 6B through ear training, sight singing, analysis and dictation. (C-ID MUS 135) (CSU, UC)

MUS 0004A. Advanced Ear Training I
Unit: 1
Prerequisite: Completion of MUS 3B with grade of "C" or better
Advisory: Concurrent enrollment in MUS 9A and MUS 40C
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic and harmonic materials of MUS 9A through ear training, sight singing, analysis and dictation. (C-ID MUS 145) (CSU, UC)

MUS 0004B. Advanced Ear Training II
Unit: 1
Prerequisite: Completion of MUS 4A with grade of "C" or better
Advisory: Concurrent enrollment in MUS 9B and MUS 40D
Hours: 40 (14 lecture, 26 laboratory)
This course applies and develops the rhythmic, melodic, and harmonic materials of MUS 9B through ear training, sight singing, analysis, and dictation. (C-ID MUS 155) (CSU, UC)

MUS 0006A. Music Theory I
Units: 3
Prerequisite: Completion of MUS 10 with grade of "C" or better or equivalent knowledge of music notation
Advisory: Completion of MUS 40A with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 3A
Hours: 54 lecture
Through guided composition and analysis, incorporates the following concepts: rhythm and meter; intervals; diatonic scales and triads; diatonic chords, basic cadential formulas and phrase structure; dominant seventh chords; figured bass symbols; and embellishing tones. Develops skills in handwritten notation. (C-ID MUS 120) (CSU, UC)

MUS 0006B. Music Theory II
Units: 3
Prerequisite: Completion of MUS 6A with grade of "C" or better or passing score on examination
Advisory: Completion of MUS 40B with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 3B
Hours: 54 lecture
Incorporates the concepts from MUS 6A. In addition, through guided composition and analysis, includes: an introduction to two-part counterpoint; voice leading involving four-part chorale writing; diatonic harmony; and an introduction to secondary/applied chords and modulation. (C-ID MUS 130) (CSU, UC)

MUS 0007. Composition with Electronic Media
Units: 3
Advisory: Completion of MUS 10 and 40A with grades of "C" or better or equivalent keyboard skills and ability to read music notation
Hours: 72 (54 lecture, 18 laboratory)
Introduction to electronic music creation, audio synthesis, sequencing, MIDI technology, and computer−aided music notation. Areas of coverage include signal flow, creation of sound patches and tracks, computer-aided score notation, and hardware/computer-aided sequencing. (CSU)

MUS 0009A. Music Theory III
Units: 3
Prerequisite: Completion of MUS 6B with grade of "C" or better
Advisory: Completion of MUS 40C with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 4A
Hours: 54 lecture
This course incorporates the concepts from MUS 6B. In addition, through writing, listening, and analysis, it includes the study of applied chords, modulation, 18th century counterpoint, modal mixture, and an introduction to chromatic harmony. (C-ID MUS 140) (CSU, UC)

MUS 0009B. Music Theory IV
Units: 3
Prerequisite: Completion of MUS 9A with grade of "C" or better
Advisory: Completion of MUS 40D with grade of "C" or better or equivalent piano skill; completion with grade of "C" or better or concurrent enrollment in MUS 4B
Hours: 54 lecture
This course incorporates the concepts from MUS 9A. In addition, through writing and analysis, it includes the study of Sonata, sonatina, and rondo forms in the Classical and Romantic eras, followed by the study of 20th century compositional techniques such as modality, nontonality, impressionism, tone rows, set theory, and modern approaches to meter and rhythm. (C-ID MUS 150) (CSU, UC)

MUS 0010. Music Fundamentals
Units: 3
Hours: 54 lecture
An elementary course designed to provide the basic musical skills, knowledge, and competencies necessary for reading or listening to music. Covers elements of music, scales, notation, rhythm, and sight reading. No prior musical training necessary. Note: Not open to students who are taking or have successfully completed MUS 3A-3B or MUS 6A-6B. (CSU, UC-with unit limitation)

MUS 0011. Introduction and History of Jazz
Units: 3
Hours: 54 lecture
Introduction to the history of jazz from traditional European, African and Latin origins to various contemporary and fusion styles. Contributions of great jazz artists studied. Focus placed on developing critical skills applicable to listening to jazz arrangements and improvisation. (CSU, UC)

MUS 0012A. Survey of Music History and Literature to 1750
Units: 3
Advisory: Completion of MUS 10 with grade of "C" or better
Hours: 54 lecture
Study of the history of Western art music from antiquity through the early Baroque Era including the influences of the Catholic Church, stylistic developments, contributions of various personalities, and analysis of music within its historical and social contexts. (CSU, UC)

MUS 0012B. Survey of Music History and Literature from 1750 to Present
Units: 3
Advisory: Completion of MUS 10 with grade of "C" or better
Hours: 54 lecture
Study of the history of European American art music from the 18th century Enlightenment through the present. Students use selected musical recordings and readings to study classical music traditions, from Europe and elsewhere, within their historical and cultural contexts. (CSU, UC)

MUS 0013. Introduction to Music: History of Rock and Roll
Units: 3
Hours: 54 lecture
History of Rock and Roll music in social, political, cultural, and economic context. Includes guided listening, lecture, and video presentations to show the evolution of Rock from its roots to current stylistic trends. (CSU, UC)

MUS 0014. Introduction to Commercial Music Production
Units: 3
Advisory: Completion of MECH 10 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Emphasis on audio concepts including basic and essential audio theory, development of critical listening skills, and perception of audio in the form of acoustic and electrical energy. Discussion and exercises in signal flow, recording facility configuration, sound reinforcement system set-up and working within different acoustic environments. Introductory training in equipment selection and placement as well as basic tracking techniques are offered. (CSU)

MUS 0015. Audio Recording
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in MUS 14
Hours: 72 (54 lecture, 18 laboratory)
Studio media content production techniques with targeted training on capture of individual instrumental and vocal sources. Coverage of analogue and digital multi-track recording techniques. Overview of basic and essential audio concepts. Opportunity for practical implementation of signal processing techniques and use of related technology such as digital signal processing. Small group multi-track projects will be required. (CSU)

MUS 0016. Media Content and Public Event Technology
Units: 3
Advisory: Completion of MUS 10 and MUS 40A with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Orientation to areas of professional activity in the fields of media content creation and public event technical support. Introduction to public and private-sector entities and areas of independent, entrepreneurial professional practice. Training in concepts including basic and essential audio theory, development of critical listening skills, and perception of audio in the form of acoustic and electrical energy. Discussion and exercises in signal flow, media production facility configuration, sound reinforcement system set-up and working within different acoustic environments. Introductory training in production equipment selection and configuration. (CSU)

MUS 0018. Live Sound
Units: 2
Advisory: Completion with grade of "C" or better or concurrent enrollment in MUS 16
Hours: 72 (18 lecture, 54 laboratory)
Training provided in a variety of public event technical support scenarios where sound reinforcement is required, including live musical performance, theatrical production, AV/multimedia, and corporate event support. Students will receive introductory training in sound system components and configuration, venue and event evaluation, production techniques and logistics, and production-related business practices. Students will engage in hands-on training in PA system setup, operation, troubleshooting, teardown, transport, and maintenance procedures. (CSU)

MUS 0024. Introduction to Music Cultures of the World
Units: 3
Hours: 54 lecture
Introduction to folk, art, devotional, and popular music from around the world. The emphasis of the course is listening to music and understanding music within its cultural contexts. Select music traditions from Africa, Asia, the Caribbean, Latin and North America, Europe, India, and the Middle East will be studied. Using ethnomusicological perspectives, concepts of ethnicity, race, class, and gender will be analyzed in relation to music cultures. Attendance at a live concert is required. (CSU, UC)

MUS 0025. Introduction to Entertainment Industry
Units: 3
Hours: 54 lecture
Exploration of non-performance career options in multiple areas of the media content management and public event technical support industries. Areas of emphasis include professional practices in the music and theatrical production fields including marketing, publishing, copyrighting, licensing, and contracts. Students will be introduced to strategies for working with unions, guilds, artists, producers, managers, and performance venue personnel. (CSU)

MUS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

MUS 0029. Audiovisual Event Production
Units: 3
Advisory: Completion of MUS 16 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Training in audiovisual technical support for public events. Students will receive introductory training in multimedia presentation, meeting/conference support system components and configuration, venue and event needs evaluation, production logistics, in-house system design and integration, and audiovisual related business practices. Students will engage in hands-on training in system design, setup, transport, installation, operation, maintenance, troubleshooting, and repair procedures. (CSU)

MUS 0039A. Beginning Voice
Units: 2
Formerly known as MUS 39
Hours: 54 (18 lecture, 36 activity)
Introductory study of efficient vocal production and performance. Beginning exercises for breath management, extending the vocal range, increasing vocal resonance and volume, and singing in an expressive manner introduced. Vocal exercises and solos are performed to demonstrate these skills. (CSU, UC)

MUS 0039B. Intermediate Voice
Units: 2
Prerequisite: Completion of MUS 39A with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes vowel purity, belt singing, and managing stage fright. Vocal exercises and songs from various music styles are performed, including selections made by students. (CSU, UC)

MUS 0039C. Advanced Voice I
Units: 2
Prerequisite: Completion of MUS 39B with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes breath management in relation to posture, expressive singing via physical movement, unifying the register and range extension, resonance and vocal registers, expressive singing, stage presence, and the International Phonetic Alphabet (IPA) to sing Italian songs. Vocal exercises and songs from various music styles are performed including selections made by students. (CSU, UC)

MUS 0039D. Advanced Voice II
Units: 2
Prerequisite: Completion of MUS 39C with grade of "C" or better
Hours: 54 (18 lecture, 36 activity)
In-depth study of specific elements of efficient vocal technique and performance. Includes breath management using an efficient onset and release, managing the performance, resonance balancing using consonants, and song analysis to prepare a vocal piece for performance. (CSU, UC)

MUS 0040A. Beginning Piano I
Units: 2
Hours: 54 (36 lecture, 18 laboratory)
Beginning instruction in the fundamentals of playing piano. Note reading and basic playing techniques are introduced. Designed to develop musicianship and facility. (CSU, UC)

MUS 0040B. Beginning Piano II
Units: 2
Prerequisite: Completion of MUS 40A with grade of "C" or better or equivalent piano skill with permission of instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40A using more advanced materials. Developing skills in harmonizing a melody, playing scales, sight-reading, chord inversions and repertoire. (CSU, UC)

MUS 0040C. Intermediate Piano I
Units: 2
Prerequisite: Completion of MUS 40B with grade of "C" or better or equivalent with permission of the instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40B, with music drawn from intermediate levels. Ensemble playing, sight-reading and harmonization skills and knowledge. Individual needs and interests considered. (CSU, UC)

MUS 0040D. Intermediate Piano II
Units: 2
Prerequisite: Completion of MUS 40C with grade of "C" or better or equivalent with permission of instructor
Hours: 54 (36 lecture, 18 laboratory)
Continuation of MUS 40C, with music drawn from intermediate, late intermediate to early advanced levels. Ensemble playing, sight-reading, harmonization and improvisation developed. Individual needs and interests considered. (CSU, UC)

MUS 0042. Chamber Singers
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include sight singing, preparation of a short musical excerpt, and an aural skills assessment
Hours: 54 (18 lecture, 36 laboratory)
Explores the literature and performance practices of vocal ensembles from the Renaissance to the present. Public performances, festivals, and field trips required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0046. Jazz Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class and require demonstrated ability to play at least one instrument commonly used in jazz ensemble
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Rehearsal and performance of literature written for instrumental jazz ensemble, with emphasis on current musical trends. Study of improvisation. Public performances required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0047. Vocal Jazz Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include sight singing, improvisation and preparation of a short musical excerpt, and an aural skills assessment
Advisory: Previous choral experience
Hours: 54 (18 lecture, 36 laboratory)
Study and performance of modern and vocal jazz styles, tone production, and rhythms. Public performances and field trips required. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0048. Concert Choir
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include ability to match pitch and produce a good tone
Hours: 54 (18 lecture, 36 laboratory)
A variety of choral experience performing repertoire, both sacred and secular, from the medieval, baroque, classical, romantic and modern periods of music history. Focuses on performance practice, musical style and poetic interpretation. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0049. Jazz Improvisation Performance Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class and require demonstrated ability to play a melodic instrument and read music in the treble or bass clef
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Fundamentals of jazz improvisation, including chord-scale application. Analysis of diverse styles of the great jazz artists through recordings and transcriptions. Development of a unique improvisational style as applied to performance. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0050. Wind Ensemble
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include demonstrated ability to play an instrument found in a wind or chamber ensemble
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Training in the interpretation and performance of standard band literature, with emphasis on sight reading new band music. Advanced students given the opportunity for solo work. At least one public performance given each semester. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0051. Applied Music
Unit: 1
Formerly known as MUS 51A
Prerequisite: Enrollment Limitation: audition before music faculty of level appropriate repertoire demonstrating technical and interpretive skills and ability to read music; limited to declared music majors only
Advisory: Three to four years experience on an instrument or voice prior to enrollment. Concurrent enrollment in an appropriate ensemble: MUS 42, 46, 47, 48, 50, or 54
Hours: 40 (7 lecture, 33 laboratory)
Individualized study of departmentally approved fine art performance curriculum. Emphasis on the progressive development of skills needed for solo performance. Student evaluated through a juried performance and a departmental recital. May be taken four times for credit. (C-ID MUS 160) (CSU, UC-with limitation)

MUS 0054. Symphonic Band
Unit: 1.5
Prerequisite: Enrollment Limitation: audition required; auditions generally occur the first week of class, and include demonstrated ability to play a symphonic band instrument
Advisory: Three to four years experience on instrument
Hours: 54 (18 lecture, 36 laboratory)
Training in the interpretation and performance of standard band literature, with emphasis on sight reading new band music. Advanced students given the opportunity for solo work. At least one public performance each semester. May be taken four times for credit. (C-ID MUS 180) (CSU, UC)

MUS 0057A. Beginning Guitar
Unit: 1.5
Hours: 36 (18 lecture, 18 activity)
Learning fundamentals of the guitar: components of instrument, reading music notations, key structure and chord structure (open position), and finger picking. Students required to supply own instruments. (CSU, UC)

MUS 0057B. Beginning Guitar
Unit: 1.5
Prerequisite: Completion of MUS 57A with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Further study of guitar fundamentals, including advanced finger picking and strumming techniques; two and three part note reading; and expanded notation and rhythmic development. Students required to supply own instruments. (CSU, UC)

MUS 0058A. Intermediate Guitar
Unit: 1.5
Prerequisite: Completion of MUS 57B with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Learning chromatics, chord structure in closed positions, harmony as applied to pieces, and major and minor scales. These techniques applied to compositions in group performance. Students required to supply own instruments. (CSU, UC)

MUS 0058B. Intermediate Guitar
Unit: 1.5
Prerequisite: Completion of MUS 58A with grade of "C" or better or equivalent with permission of instructor
Hours: 36 (18 lecture, 18 activity)
Further study of chord melody construction. Learning moveable chords and application to song types, including 9th, 11th, and 13th chords. Students required to supply own instruments. (CSU, UC)

MUS 0095. Internship in Music
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

MUS 0810. Selected Topics in Music
Units: 0
Hours: 8 to 54 lecture as scheduled
Course designed for older adults. Study of selected styles and periods of music. Includes discussion of musical elements, composition, orchestration, vocabulary and history for the selected topics. May be repeated. (noncredit)

Nursing Assistant (NRSA)

NRSA 0003. Precertification Nursing Assistant Training
Units: 6.5
Hours: 202 (85 lecture, 117 laboratory)
Introduction to nursing practice based on the humanistic philosophy of Abraham Maslow. Includes basic skills necessary to assist in satisfying the patient's physical, psychological, social, and cultural needs. Students must be fingerprinted and submit documentation related to received conviction; certification may be denied. Students must meet regulatory requirements for class attendance, health clearance, background check clearance, and valid social security number to participate in the course. Upon successful completion, students are eligible to take the State of California Certification Examination to become a Nursing Assistant qualified for employment in an acute or long-term health care facility. Testing and certification fees are required. (letter grade only) (not transferable)

Nursing, Registered (NRSR)

NRSR 0017. High-Risk Pediatric Nursing
Units: 0.5
Prerequisite: Enrolled as LVN to RN Upward Mobility student
Hours: 9 lecture
Provides the LVN Upward Mobility student with the content/concepts for the management of nursing care for the child with complex nursing needs, such as a high-risk medical condition and chronic or end-of-life care. The content rounds out the basic pediatric nursing content the student received in the vocational nursing program and meets BRN curriculum requirements. (CSU)

NRSR 0021. Nursing Fundamentals and Geriatric Nursing
Units: 11
Prerequisite: Completion of BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12, and ENGL C1000 with grades of "C" or better
Hours: 396 (99 lecture, 297 laboratory)
Introduction to nursing with overview of its evolution, present trends and issues, legal and ethical aspects and the major concepts underlying today's practice. Theory and correlated clinical practice related to utilizing the nursing process based on Roy's Adaptation Model to provide direct care to stable adult and geriatric clients. Emphasis on basic human needs and promoting adaptive mechanisms for attaining and maintaining wellness. Students gain the knowledge and skills necessary to perform all basic nursing procedures. (letter grade only) (CSU)

NRSR 0022. Medical Surgical I and Pediatric Nursing
Units: 11
Prerequisite: Completion or equivalent of NRSR 21 with grade of "C" or better as determined by Dean/Department Chair or current LVN licensure and completion of BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12 and ENGL C1000 with grades of "C" or better
Hours: 387 (104 lecture, 283 laboratory)
Theory and correlated clinical practice related to utilizing the nursing process based on Roy's Adaptation Model to promote adaptation by adult and pediatric clients and their families experiencing common and/or remedial illnesses/stressors. Students further develop skills and apply theory introduced in NRSR 21 in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0023. Medical Surgical II and Mental Health Nursing
Units: 11
Prerequisite: Completion of NRSR 22 with grade of "C" or better or current LVN licensure and BIOL 4, 5, 6, NUTF 10, HDEV 1, PSYC C1000, MATH 12 , and ENGL C1000 with grades of "C" or better; Completion of or concurrent enrollment in COMM C1000 and SOC 1 or ANTH 2 with grades of "C" or better
Hours: 387 (104 lecture, 283 laboratory)
Theory and clinical practice related to application of the nursing process based on Roy's Adaptation Model. Students provide care for the adult client having a variety of complex medical-surgical health problems and learn to apply the nursing process for clients experiencing common mental health issues. Focus is on the role of the registered nurse in therapeutic communication, health teaching, leadership, management, and team work. Students further develop skills and apply theory introduced in NRSR 22 in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0024. Advanced Medical Surgical and Maternal-Newborn Nursing
Units: 11
Prerequisite: Completion of NRSR 23 with grade of "C" or better
Hours: 396 (99 lecture, 297 laboratory)
Theory and correlated clinical practice related to the application of the nursing process based on Roy's Adaptation Model for multiple adult and geriatric clients with complex health problems experiencing acute illness. Students learn to promote adaptation for the maternal-newborn clients experiencing illness/stressors. Students further develop skills and apply theory introduced in previous semesters in varied and more complex settings, and gain additional theory and skills related to new clinical areas and levels of responsibility. (letter grade only) (CSU)

NRSR 0025. High Risk Obstetrical/Newborn Nursing
Units: 0.5
Prerequisite: Enrolled as an LVN to RN upward mobility student
Hours: 16 (7 lecture, 9 laboratory)
Provides the LVN upward mobility student with the content/concepts for the management of nursing care for the obstetrical and newborn patient with complex nursing needs, such as a high-risk intrapartum, complicated birth, and post delivery care of maternal/newborn patients. Content builds upon the basic obstetrical nursing content the student received in the vocational nursing program and meets BRN curriculum requirements. (CSU)

NRSR 0031. Dosage Calculations for Medication Administration for Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 21
Hours: 18 lecture
Focuses on preparing nursing students with the fundamental skills necessary for accurate dosage calculations in the context of medication administration. Through comprehensive instruction, students will gain proficiency in calculating dosages, ensuring precision and safety in the vital skill of medication delivery within a nursing context. This course emphasizes practical application, enabling students to develop the necessary competence in dosage calculations to excel in nursing practice. (pass/no pass grading) (CSU)

NRSR 0032. IV Therapy Techniques and Medication Administration in Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 22
Hours: 18 lecture
Designed to equip healthcare professionals with the essential knowledge and practical skills required for safe and effective intravenous (IV) therapy. The course focuses on foundational concepts, principles, and techniques essential for nurses who administer IV therapy in diverse healthcare settings. This course combines theoretical knowledge with practical application, ensuring that participants are well-prepared to deliver safe and competent IV therapy. (pass/no pass grading) (CSU)

NRSR 0033. Pharmacology for Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 23
Hours: 18 lecture
Designed to provide nursing students with a comprehensive understanding of pharmacology as it relates to nursing practice. Students will explore the principles of pharmacodynamics and pharmacokinetics, emphasizing the actions, uses, and adverse effects of commonly used medications across diverse patient populations. (pass/no pass grading) (CSU)

NRSR 0034. Pathways to Professionalism in Nursing
Unit: 1
Prerequisite: Acceptance into the Sierra College Associate Degree Nursing program
Corequisite: Concurrent enrollment in NRSR 24
Hours: 18 lecture
Designed to equip Associate Degree in Nursing (ADN) students with the essential skills, knowledge, and attitudes necessary for a successful transition into the professional nursing workforce. With emphasis on the significance of professional identity in nursing, this course focuses on cultivating foundational principles and behaviors that result in the individual thinking, acting, and feeling like a nurse. (pass/no pass grading) (CSU)

Nutrition and Food Science (NUTF)

NUTF 0005. Food Preparation for Nutrition and Life Fitness
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 90 (36 lecture, 54 laboratory)
Focuses on the application of food science principles. Emphasis on ingredient function and interaction, food preparation techniques, sensory evaluation, food safety and sanitation, and nutrient composition of foods. Modification of recipes to optimize nutrient content. (C-ID NUTR 120) (CSU)

NUTF 0010. Principles of Nutrition
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Scientific concepts of nutrition related to the function of nutrients in basic life processes and current health issues with emphasis on individual needs. The specific nutrient needs throughout the lifespan will also be examined. (C-ID NUTR 110) (CSU, UC)

NUTF 0013. Nutrition Throughout the Life Cycle
Units: 3
Also known as HDEV 61
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Examination of nutritional requirements, concerns, and interventions during several stages of the life cycle, from preconception to old age. Analysis of cultural, environmental, physical, and economic factors affecting nutritional status. Practical application of adequate nutrition through dietary selection and promotion of health throughout each life cycle stage. (CSU)

NUTF 0014. Sports Nutrition
Units: 3
Advisory: Completion of NUTF 10 with grade of "C" or better
Hours: 54 lecture
Presents fundamental nutrition concepts and applies them to individuals interested in physical activity, exercise, and sport. Nutrition topics include short-term and long-term nutrient intake, hydration status, supplement use, and body composition as they relate to physical performance. Basic fitness information regarding the key components of fitness, energy systems, and energy balance will also be explored. (CSU)

NUTF 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

NUTF 0095. Internship in Nutrition and Food Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Personal Development (PDEV)

PDEV 0001. College and Life Success
Units: 3
Hours: 54 lecture
Strategies for creating success in college, life and career. Apply psychological, social, and physiological principles of development, learning, motivation and wellness to support success. Explore personality, interests, and values to increase self-understanding and support informed educational, career and life decisions. Strengthen academic study strategies such as note taking, memorizing and test taking skills. Apply life management techniques to accomplish goals. Develop a plan for wellness and living a long and healthy life. Practice creative and critical thinking techniques, problem-solving, and decision-making. (CSU, UC-with unit limitation)

PDEV 0006. Career Planning
Units: 3
Hours: 54 lecture
A study of Career Counseling and its relationship to career planning. In particular, students will learn to examine their individual psychological, social, and environmental factors impacting their career choices. The course includes individual assessments of personality, interests, values, and skills to help identify appropriate careers and college majors. Students will examine the historical view of careers, current career trends, employment outlook, occupational research, research on educational requirements, goal setting, decision-making, and job search strategies including networking, resume writing, interviewing and portfolio development. (CSU, UC)

PDEV 0008. Introduction to College
Units: 0.5-2
Hours: 9 lecture per .5 unit
Introduction to higher education, college terms, student resources, student success practices, steps to choosing a career direction, related interest area, program and/or major, the college catalog, degree/certificate requirements, and an overview of the transfer process to four-year colleges/universities. Students formulate an educational plan to increase success in reaching educational goals. (CSU, UC-with unit limitation)

PDEV 0009. Assertiveness Training
Unit: 1
Hours: 18 lecture
Step by step strategies for becoming more assertive, rather than passive or aggressive. Learn verbal and nonverbal skills for communicating with people more authentically, effectively and fairly. Examines cultural and social differences in assertive communication. (CSU)

PDEV 0012. Peer Mentor Training
Units: 3
Hours: 54 lecture
Experiential introduction to the method and process of being a skilled helper in academic peer support programs. Emphasis on communication skills, relationship development, knowledge of higher education, college policies and resources with the goal of promoting the academic and psychosocial factors that contribute to college and life success. (CSU)

PDEV 0021. Career Exploration through Self Assessment
Units: 0.5-1
Hours: 9 lecture per .5 unit
Introduction to the career decision making process using career assessment and educational planning tools. Includes self assessment of personality, values, interests and skills; analysis and exploration of course of study and career options; development of a career action plan; and creation of a student educational plan. (CSU)

PDEV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

PDEV 0052. Student Leadership Development
Units: 2
Hours: 36 lecture
Introductory course in leadership development, which explores student government, student clubs and organizations, and aspects of group dynamics. Students gain knowledge in applying practical leadership skills to out-of-class projects; such as planning and running effective meetings, parliamentary procedure, group leadership, and motivation techniques. (CSU)

PDEV 0070. Stress and Well Being
Units: 3
Hours: 54 lecture
Emphasis on analyzing theories, research methods, and empirical evidence regarding the relationship between stress and well-being. Overview of psychological theories of stress, including types, causes and effects. Explores solutions to mitigate its negative impacts. Explores the relationship between psychological and socio-cultural theories and factors in creating stress and affecting ones ability to manage it. Introduces research in coping techniques including meditation, cognitive strategies and the practice of wellness. (CSU, UC)

PDEV 0075. Study of Happiness and Well-Being
Units: 3
Hours: 54 lecture
An overview of happiness and well-being through current theory and research in positive psychology. This course explores the relationships between positive psychology, psychological theories, and the application of strategies to enhance happiness and well-being. Topics include personal strengths, gratitude, meaning and social connection. Emphasis on analyzing theories, cultural perspectives, research methods, and empirical evidence, all with a direct application to everyday life, including finding meaning in relationships, career, and life. (CSU)

PDEV 0094. Career Exploration Internship
Units: 0.5-4
Exposure to business/industry under the direction of a worksite supervisor, related to student's educational or occupational goals. Develops career awareness, experience and knowledge with a focus on job skills that enhance academic learning. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

PDEV 0095. Internship in Personal Development/Human Services
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

PDEV 0800. Career Essentials - Looking Inside
Units: 0
Hours: 10 lecture
Introduction to the career decision-making process using career assessment tools to formulate a career profile. Includes self assessment of personality, values, interests, skills and learning style. (pass/no pass grading) (noncredit)

PDEV 0801. Career Essentials - Exploring the World of Work
Units: 0
Prerequisite: Completion of PDEV 800 with grade of "Pass"
Hours: 8 lecture
Introduction to the world of work including industry sectors, career clusters and pathways. Overview of current and projected trends in expanding career areas, educational/training requirements, salary and outlook. Research career options using a variety of resources. Develop understanding of decision-making process and apply to career choices. (pass/no pass grading) (noncredit)

PDEV 0802. Career Essentials - Getting Hired
Units: 0
Hours: 10 lecture
Overview and explanation of the job search process, including the role of social media, personal branding and evolving employer expectations. Understanding and application of current job search techniques including finding and researching positions and companies, networking, resume writing, interviewing, and evaluating and negotiating job offers. (pass/no pass grading) (noncredit)

Philosophy (PHIL)

PHIL 0002. Introduction to Philosophy: Ethics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The concept of morality and values, Western systems of ethics including Virtue Ethics, Utilitarianisms, Kantian ethics, Feminist Moral Theory and their application to contemporary moral dilemmas. (C-ID PHIL 120) (CSU, UC)

PHIL 0004. Introduction to Critical Thinking
Units: 3
Prerequisite: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
A study of the principles of inductive and deductive inference and their practical applications in everyday situations such as analyzing, criticizing, and advocating ideas, evaluation of arguments, and problem solving. Examines the use of language, formal and informal fallacies, syllogistic argument forms and the scientific method. Develops the ability to integrate principles of critical thinking with the techniques of effective written argument. (C-ID PHIL 110) (CSU, UC)

PHIL 0006. Introduction to Philosophy: Knowledge and Reality
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the method and primary problems of philosophy including argumentation, conceptual analysis, analysis and evaluation of fundamental assumptions and principles of various philosophical systems and philosophical interpretation of primary texts on topics from epistemology and metaphysics. (C-ID PHIL 100) (CSU, UC)

PHIL 0010. Philosophy of Religion
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Analysis of the major philosophical issues raised by, but not limited to traditional Western religion. Includes an examination of the arguments for God's existence and nature, immortality, the problem of evil, miracles, rationality of religious belief, the relation of faith to reason, and theories on the meaning of the religious language. (CSU, UC)

PHIL 0012. Introduction to Symbolic Logic
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the principles of deductive reasoning including formal techniques of sentential and predicate logic. (C-ID PHIL 210) (CSU, UC)

PHIL 0013. Introduction to Asian Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major philosophies of Asia including Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Focuses on issues such as immortality, the nature of reality, god, the self, society, transcendence and morality. Also looks at the influences of Eastern Philosophy on Western Culture. (CSU, UC)

PHIL 0020. History of Ancient Greek Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
A study of the origin and rise of Western Philosophy from the pre-Socratic philosophers, Socrates, Plato, and Aristotle, up to the Hellenistic period. (C-ID PHIL 130) (CSU, UC)

PHIL 0021. History of Modern Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Sixteenth through Eighteenth century philosophy with emphasis on broad epistemological or metaphysical theories, developments of empiricism and rationalism from Descartes to Kant. (C-ID PHIL 140) (CSU, UC)

PHIL 0027. Introduction to Philosophy of Women in Western Cultures
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to the concepts of womanhood and feminism in mythic, classic, medieval and major philosophical traditions. Emphasis on the images, roles and beliefs about women found in the humanities and philosophy with respect to their impact and contemporary relevance. (CSU, UC)

PHIL 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PHIL 0030. Introduction to Social and Political Philosophy
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Major philosophical issues surrounding the nature of society and justifications for the authority of the state. Focuses on how the concepts of the common good, individual rights, liberty, equality, and democracy relate to notions of justice, private property and the legitimate use of state power. (CSU, UC)

PHIL 0060. Introduction to Environmental Ethics
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Philosophical survey of the ethical questions and issues raised when considering the relationship between human beings and the environment. Topics include the moral standing of animals, land use and preservation policy, growth and sustainability, and environmental justice. Theoretical approaches include deep ecology, social ecology, ecofeminism, multicultural perspectives, and environmental pragmatism. (CSU, UC)

PHIL 0065. Introduction to the Philosophy of Science
Units: 3
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
The philosophical foundations of science such as criteria for distinguishing between science and pseudo-science, questions concerning scientific progress, justification of scientific hypotheses, the theory-dependence of observation, the nature of scientific revolutions, the possibility of objectivity and the challenges of relativism, feminism and marginalization. (CSU, UC)

PHIL 0210. Ethical Studies in Business
Units: 3
Also known as BUS 210
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Explore critical moral issues in the business realm, including diversity, equity, and inclusion, corporate responsibility, global economic impacts, environmental concerns, the distribution of wealth, advertising ethics, and digital privacy. This course analyzes these topics emphasizing fundamental moral philosophical theories and principles essential for understanding and resolving ethical challenges in today's business environment. (C-ID PHIL 120) (CSU, UC)

Photography (PHOT)

PHOT 0010. History of Photography
Units: 3
Also known as ARHI 134
Hours: 54 lecture
Historical survey of photography as an art form and communication tool from its invention to the present. Explores various perspectives including photography as an art form and a technology, influential themes, periods, and photographers. Investigates technical considerations, photography's role in mass culture, and other societal influences. (CSU, UC)

PHOT 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

PHOT 0060A. Beginning Photography
Units: 3
Hours: 72 (36 lecture, 36 activity)
Utilizing digital and film cameras to create photographs that are technically competent and visually appealing. Elements of design and influence of photography as an art form examined. Topics include subject selection, exposure control, composition, lighting, printing, presentation, and responses to photographs within a framework of historical and ethnically and culturally diverse perspectives. (CSU, UC)

PHOT 0060B. The Creative Image
Units: 3
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
The conceptual process, experimentation, and photographic tools of creative image making. Consideration of the work by historical and ethnically and culturally diverse photographers. Topics include creative camera and darkroom experimentation, medium format and toy cameras, pinhole photography, the traditional/digital darkroom and bookmaking. (CSU, UC)

PHOT 0063. Digital Photography
Units: 3
Formerly known as PHOT 78
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Emphasis on practical use of the digital camera in real world situations. Creative and technical controls offered by digital cameras. Image file management and image optimization using Adobe Lightroom. Color management and digital printing. Basic video capture with digital still cameras. (CSU)

PHOT 0065. Documentary Photography
Units: 3
Prerequisite: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Production of photographic essays and individual images that capture what is happening in the world around us. Historical origins and cultural impact of documentary photography and photojournalism. Emphasis on ethics, communication with single images and photographic essays. Bringing together photography and text, contemporary practitioners, and organization of visual essays. (CSU)

PHOT 0070A. Studio Lighting
Units: 3
Prerequisite: Completion of PHOT 60A and PHOT 75 or PHOT 78 with grade(s) of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
The application of studio lighting techniques to portrait and product photography. Concentration on creative and technical control of lighting, background, props and composition. Utilizes both studio strobe and continuous light sources. (CSU)

PHOT 0070B. Advanced Studio Lighting
Units: 3
Prerequisite: Completion of PHOT 70A with a grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Additional creative and technical work with studio lighting and portfolio development. Concentration on refining studio techniques used in commercial and fine art photography. Students create a focused body of work over the course of the semester. (CSU)

PHOT 0075. Introduction to Photoshop
Units: 3
Also known as AAD 75
Advisory: Completion of AAD 70 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Introduction to the acquisition and computer enhancements of digital images for design and photography. Analysis and critique of images from initial concept to final project creation. Basic scanning, image adjustments, retouching, compositing, and file preparation for printing and other uses. (CSU, UC)

PHOT 0076. Advanced Projects in Photoshop
Units: 3
Also known as AAD 76
Prerequisite: Completion of PHOT 75 or AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Advanced digital project development using Photoshop. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Integration of other software programs. Evaluations and critiques of completed projects. (CSU)

PHOT 0079. Introduction to Digital Filmmaking and Video Production
Units: 3
Also known as AAD 79 and COMM 31A
Hours: 90 (36 lecture, 54 laboratory)
Use of digital cameras for producing short form video projects. Introduction to principles, techniques and the terminology of video production and digital filmmaking. Guided classroom exercises and projects, including pre-production planning, storytelling, video and audio recording techniques, on-location set-ups and studio set-ups, lighting for filmmaking, and basic video editing and output. (CSU)

PHOT 0080. Color Photography
Units: 3
Prerequisite: Completion of PHOT 78 or PHOT 75/AAD 75 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Application of color theory and technical skills to create expressive color photographs. Study of the history of color photography, color symbolism, and color as a communication element in photography. Composition, exposure, and theme in creating effective color photographs also covered. Implementation of a color-managed workflow to produce accurate color from digital capture to print. (CSU, UC)

PHOT 0088. Business Practices for Photographers
Units: 3
Advisory: Completion of a minimum of three photography courses
Hours: 54 lecture
Successful business practices for commercial, portrait, and fine art photographers. Elements of starting and running a photography business, including overhead, taxes, insurance, copyright law, contracts, pricing and marketing. Overview of business resources provided by professional photography organizations. Creation of a business plan related to the students' career goals. (CSU)

PHOT 0089. Documentary Filmmaking
Units: 3
Also known as AAD 89
Prerequisite: Completion of AAD 79/COMM 31A/PHOT 79 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Examines the principles, techniques and terminology that are specific to documentary filmmaking. Students produce documentary films that incorporate industry standard pre-production preparation such as creating contracts, research, location surveys, and script writing. Major topics include camera operation, capturing b-roll, location sound recording, mixing, editing and formatting for distribution. (CSU, UC)

PHOT 0090I. Night Photography Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Intensive field workshop covering methods and processes of night, artificial and available light photography. Topics include camera and lens use, accessory equipment, metering, lighting, and the unique aspects of the event, region or situation being studied. (CSU)

PHOT 0090J. Photojournalism Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Practical experience covering specific event(s). Visual styles, locations, methods, and processes of photojournalism explored. Topics include camera and lens use, composition, equipment, metering and lighting, working methods of photojournalists and the unique aspects of the event or region being studied. (CSU)

PHOT 0090L. Field Workshop: Landscape
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Exploration of landscape photography. Topics include camera and lens use, composition, equipment, metering and lighting, the social contribution of landscape photography and the unique aspects of region being studied. Location of field study will vary. Students must supply camera, digital media or film and presentation materials. (CSU)

PHOT 0090N. Color Nature Photography Field Workshop
Units: 0.5-3
Advisory: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Application of color photography concepts in the field. Topics include subject selection, the impact and use of color, capturing accurate vs. altered color, equipment, composition, metering and overcoming the challenges of location and weather. (CSU)

PHOT 0090P. Outdoor Portrait Workshop
Units: 0.5-3
Prerequisite: Completion of PHOT 60A or 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Photographing individuals and groups in an outdoor setting. Topics include camera, lens and equipment selection, camera use, lighting, posing, and composition. (CSU)

PHOT 0090T. Field Workshop: Travel Photography
Units: 0.5-3
Advisory: Completion of PHOT 60A with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Intensive field workshop covering specific locations, methods and processes of travel photography. Includes visual themes, narrative and individual images, composition, equipment, exposure, selection and presentation of photographs. Overview of the population, habitat, environment and geography, culture and traditions of the region being studied. (CSU)

PHOT 0090U. Drone Photography and Videography
Units: 0.5-2
Hours: 13 (7 lecture, 6 activity) per .5 unit
Camera operation and flight maneuvers used by photographers and cinematographers to capture still and motion footage from UAV's (drones). Topics covered include equipment selection, flight controls, safety, image capture and business opportunities. Students utilize department provided equipment. How to prepare for FAA certification will be discussed. (CSU)

PHOT 0090W. Wedding and Event Photography Field Workshop
Units: 0.5-1
Prerequisite: Completion of PHOT 60A or PHOT 78 with grade of "C" or better
Hours: 13 (7 lecture, 6 activity) per .5 unit
Documentation of weddings and events, such as: conferences, trade shows, public relations events, campaign rallies, performances, holiday parties and Quinceañeras. Working with portable flash, available light and mixed lighting. Posing and capturing groups and individuals in a timely manner. (CSU)

PHOT 0092. Alternative Processes
Units: 3
Prerequisite: Completion of PHOT 60A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Creative expression through alternative photographic processes, many of which were first developed in the 19th century and are known for producing expressive prints with a unique look. Merging of digital technology and non-traditional printing materials explored. Processes may include: cyanotype, salt printing, kallitype, anthotype, tintype, lumen, hand-coated silver emulsion, and inkjet transfers. (CSU)

PHOT 0093. Advanced Alternative Processes
Units: 3
Prerequisite: Completion of PHOT 92 with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)
Advanced study of alternative processes in photography designed to expand on the technical and creative concepts previously acquired. Exploration of the technical and aesthetic variations possible within the processes chosen for study. Creation of a cohesive fine art portfolio. (CSU)

PHOT 0095. Internship in Photography
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

Physics (PHYS)

PHYS 0000A. Preparation for Calculus-Based Physics
Units: 4
Prerequisite: Completion of MATH 27 or equivalent with grade of "C" or better
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Intended to provide stronger preparation for Physics 205 than Physics 105. Focuses on measurement and the development of the conceptual and mathematical frameworks necessary for problem-solving in physics. (CSU)

PHYS 0010. Basic Concepts in Physics
Units: 3
Prerequisite: Eligibility for Math D
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 lecture
Introduction to the laws of motion, properties of matter, heat, sound, electricity, magnetism, light, atomic and nuclear physics, and relativity. Emphasis on familiar phenomena in everyday life. Intended for nonscience majors. (CSU, UC-with unit limitation)

PHYS 0010L. Basic Concepts in Physics Laboratory
Unit: 1
Formerly known as PHYS 11
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in PHYS 10
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
An optional laboratory course taken in conjunction with PHYS 10. Integrates abstract concepts from PHYS 10 into concrete applications through experimentation. Topics include the SI system of measurement; motion; fluids and properties of matter; thermodynamics; waves; sound; electricity and magnetism; and light and optics. (CSU, UC-with unit limitation)

PHYS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PHYS 0105. General Physics I
Units: 4
Formerly known as PHYS 2A (PHYS 105 and 105L, combined)
Prerequisite: Completion of MATH 27 or equivalent with grade of "C" or better
Corequisite: Concurrent enrollment in PHYS 105L
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Noncalculus introduction to the principles of mechanics, properties of matter and heat. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 105L, C-ID PHYS 105) (CSU, UC-with unit limitation)

PHYS 0105L. General Physics I Laboratory
Unit: 1
Formerly known as PHYS 2A (PHYS 105 and 105L, combined)
Prerequisite: Completion of MATH 27 or high school trigonometry with grade of "C" or better
Corequisite: Concurrent enrollment in PHYS 105
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Laboratory portion of PHYS 105. Noncalculus introduction to the principles of mechanics, properties of matter and heat. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 105, C-ID PHYS 105) (CSU, UC-with unit limitation)

PHYS 0110. General Physics II
Units: 4
Formerly known as PHYS 2B (PHYS 110 and 110L, combined)
Prerequisite: Completion of PHYS 105 and 105L with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 110L
Hours: 72 lecture
Noncalculus introduction to the principles of waves, sound, light, electricity, magnetism, and modern physics. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 110L, C-ID PHYS 110) (CSU, UC-with unit limitation)

PHYS 0110L. General Physics II Laboratory
Unit: 1
Formerly known as PHYS 2B (PHYS 110 and 110L, combined)
Prerequisite: Completion of PHYS 105 and 105L with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 110
Hours: 54 laboratory
Laboratory portion of PHYS 110. Noncalculus introduction to the principles of waves, sound, light, electricity, magnetism, and modern physics. Emphasis on applications relevant to several majors, including premedical, predental, optometry, forestry, architecture, and biological science. (combined with PHYS 110, C-ID PHYS 110) (CSU, UC-with unit limitation)

PHYS 0140. Survey of Chemistry and Physics
Units: 4
Also known as CHEM 140
Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process
Hours: 108 (54 lecture, 54 laboratory)
A conceptual introduction to the basic principles of physics and chemistry including matter, physical and chemical properties, forces and motion, energy, electromagnetism, electromagnetic waves, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors. (C-ID CHEM/PHYS 140) (CSU, UC)

PHYS 0205. Principles of Physics: Mechanics
Units: 4
Formerly known as PHYS 4A (PHYS 205 and 205L, combined)
Prerequisite: Completion of MATH 30 and 31 with grades of "C" or better (MATH 31 may be taken concurrently); AND PHYS A or PHYS 105, or high school physics with grade(s) of "C" or better
Corequisite: Concurrent enrollment in PHYS 205L
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 72 lecture
Calculus-based introduction to the principles of kinematics, dynamics, energy, momentum, rotational motion, gravitation and fluids. The Physics 205/210/215 series presents the general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 205L, C-ID PHYS 205) (CSU, UC-with unit limitation)

PHYS 0205L. Principles of Physics Laboratory: Mechanics
Unit: 1
Formerly known as PHYS 4A (PHYS 205 and 205L, combined)
Prerequisite: Completion of MATH 30 and 31 with grades of "C" or better (MATH 31 may be taken concurrently); AND PHYS A, PHYS 105, or high school physics with grade(s) of "C" or better
Corequisite: Concurrent enrollment in PHYS 205
Advisory: Eligibility for ENGL 11 strongly recommended
Hours: 54 laboratory
Laboratory portion of PHYS 205. Calculus-based introduction to the principles of kinematics, dynamics, energy, momentum, rotational motion, gravitation and fluids. The Physics 205/210/215 sequence presents the general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 205, C-ID PHYS 205) (CSU, UC-with unit limitation)

PHYS 0210. Principles of Physics: Electricity and Magnetism
Units: 3
Formerly known as PHYS 4B (PHYS 210 and 210L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 210L
Hours: 54 lecture
Electrostatics, AC and DC circuits, magnetism, Maxwell's Equations, electromagnetic waves, and the electric and magnetic properties of matter. The 205-210-215 sequence presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 210L, C-ID PHYS 210) (CSU, UC-with unit limitation)

PHYS 0210L. Principles of Physics Laboratory: Electricity and Magnetism
Unit: 1
Formerly known as PHYS 4B (PHYS 210 and 210L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 210
Hours: 54 laboratory
Laboratory portion of PHYS 210. Electrostatics, AC and DC circuits, magnetism, Maxwell's Equations, electromagnetic waves, and the electric and magnetic properties of matter. The 205-210-215 sequence presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 210, C-ID PHYS 210) (CSU, UC-with unit limitation)

PHYS 0210R. Problem Solving for Physics 210
Unit: 1
Formerly known as PHYS 4Y
Corequisite: Concurrent enrollment in PHYS 210
Hours: 18 lecture
Optional problem solving course to accompany PHYS 210. Includes electric forces and fields, electrical potential, capacitors and dielectrics, magnetism, electromagnetic waves, and DC and AC circuits. (CSU, UC-with unit limitation)

PHYS 0215. Principles of Physics: Heat, Waves and Modern Physics
Units: 3
Formerly known as PHYS 4C (PHYS 215 and 215L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 215L
Hours: 54 lecture
Thermodynamics, kinetic theory of gases, waves, geometrical and physical optics, sound, and modern physics. The 205-210-215 series presents general principles and analytical methods used in physics for physical science and engineering majors. (combined with PHYS 215L, C-ID PHYS 215) (CSU, UC-with unit limitation)

PHYS 0215L. Principles of Physics Laboratory: Heat, Waves and Modern Physics
Unit: 1
Formerly known as PHYS 4C (PHYS 215 and 215L, combined)
Prerequisite: Completion of PHYS 205, PHYS 205L, and MATH 31 with grades of "C" or better
Corequisite: Concurrent enrollment in PHYS 215
Hours: 54 laboratory
Laboratory portion of PHYS 215. Covers topics of thermodynamics, kinetic theory of gases, waves, geometrical and physical optics, sound, and modern physics. (combined with PHYS 215, C-ID PHYS 215) (CSU, UC-with unit limitation)

PHYS 0215R. Problem Solving for Physics 215
Unit: 1
Formerly known as PHYS 4Z
Corequisite: Concurrent enrollment in PHYS 215
Hours: 18 lecture
Optional problem solving course to accompany PHYS 215. Includes thermodynamics, mechanical waves, optics, and modern physics.(CSU, UC-with unit limitation)

Political Science (POLS)

POLS 0002. Introduction to Comparative Government
Units: 3
Hours: 54 lecture
Compares the major political systems of selected countries of the world, both autocratic and democratic. Comparison includes the origins and development of governments, their constitutional principles, political cultures and ideologies, institutions, parties, and government policies. (C-ID POLS 130) (CSU, UC)

POLS 0003. Introduction to International Relations
Units: 3
Hours: 54 lecture
Introduction to the political relations between governments and other global actors. Examination of theories and concepts that help to explain conflict and cooperation in a range of issue areas. (C-ID POLS 140) (CSU, UC)

POLS 0004. Russian and East European Political Systems
Units: 3
Hours: 54 lecture
Comparison of Russian government and politics with that of other Eastern European states. Discussion of the past imperial and communist systems. Focus on social and political actors, decision-making institutions and major policy issues. (CSU, UC)

POLS 0005. California Politics and Government
Units: 3
Hours: 54 lecture
An examination of state and local governments and their relations to the federal government. Topics include interest groups, elections and policy issues. (CSU, UC)

POLS 0007. Politics of the Developing World
Units: 3
Hours: 54 lecture
Study of revolution and political changes of selected countries in the Developing World/Global South focusing on historical experiences of European and American imperialism and colonialism. Major emphasis on popular movements of self-determination and conflicts between traditional indigenous values and non-traditional Western ideology. Contemporary case studies include Latin America, Africa, and Asia. (CSU, UC)

POLS 0008. American Foreign Policy
Units: 3
Hours: 54 lecture
Overview of American diplomatic history and the politics of foreign policy formation and implementation. Survey of contemporary international issues confronting the U.S. (CSU, UC)

POLS 0009. Politics of the Middle East
Units: 3
Hours: 54 lecture
An introduction to the politics and political systems of the Middle East. Focuses on the influence of colonialism, nationalism and Islam on forms of government, social turmoil and international conflicts. (CSU, UC)

POLS 0012. Terrorism
Units: 3
Hours: 54 lecture
Overview of terrorism, including history, motives, and political impact. Implications of counterterrorism policies. (CSU, UC)

POLS 0016. Introduction to Political Theory
Units: 3
Hours: 54 lecture
Survey of major political theorists and their analyses of political concepts, such as state of nature, natural law, natural rights, and civil and political society. Examination of various theoretical approaches to politics, exploration of proposed solutions to basic political problems, and analysis of selected political theories and the relevance of theory to contemporary issues, such as environmentalism, feminism, and justice. (C-ID POLS 120) (CSU, UC)

POLS 0017. Introduction to Political Science Research Methods
Units: 3
Advisory: Completion of STAT C1000 with grade of "C" or better; completion with grade of "C" or better or concurrent enrollment in any POLS course
Hours: 54 lecture
Surveys research methods employed in political science. Introduces research design, experimental procedures, descriptive methods, instrumentation, collection, interpretation, and reporting of research data, and the ethics of research. (C-ID POLS 160) (CSU, UC)

POLS 0018. California Government
Unit: 1
Hours: 18 lecture
Introduction to politics and government in California. A survey of state and local institutions and processes. Fulfills California state and local government requirement for students who have taken the equivalent of POLS 0001 outside of California. Not open to students who have completed POLS 0005. (CSU, UC)

POLS 0027. Women and Politics in a Global Society
Units: 3
Hours: 54 lecture
Exploration of past and current influences on the political and legal status of women as well as women's participation in the political process throughout the world. Includes political theory and strategy as it relates to women. (CSU, UC)

POLS 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

POLS 0095. Internship in Political Science
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

POLS C1000. American Government and Politics
Units: 3
Formerly known as POLS 1
Hours: 54 lecture
This course is an introduction to government and politics in the United States and California. Students examine the constitutions, structure, and operation of governing institutions, civil liberties and civil rights, political behaviors, political issues, and public policy using political science theory and methodology. (C-ID POLS 110) (CSU, UC)

Psychology (PSYC)

PSYC 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

PSYC 0102. Navigating Psychology: The Major and Careers
Unit: 1
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Hours: 18 lecture
Provides an overview of the discipline of psychology, including expectations for the psychology major, and career options in various areas, such as academic psychology, applied behavior analysis, counseling and mental health, education, industrial-organizational psychology and related fields. Students design plans of study and clarify their career goals through activities such as interviewing a professional in the field of psychology, resume writing, and interviewing. (CSU)

PSYC 0103. Social Psychology
Units: 3
Formerly known as PSYC 3
Hours: 54 lecture
Study of human interaction with emphasis on the individual within a social context. Topics include development of the self, social perception, interpersonal attraction, prejudice and discrimination, attitude change, moral development, altruism, aggression, social influence, power and leadership, and interaction in groups. (C-ID PSY 170) (CSU, UC)

PSYC 0104. Developmental Psychology
Units: 3
Formerly known as PSYC 4
Advisory: Completion of PSYC C1000 with grade of "C" or better
Hours: 54 lecture
An overview of development from conception to death. Includes socioemotional, language and cognitive development, nature versus nurture, attachment, gender role development, and family structures. Examines psychological theories that apply to the lifespan. A multicultural and multiethnic approach is stressed and the differences in child parent interaction are explored in these contexts. (C-ID PSY 180) (CSU, UC)

PSYC 0105. Research Methods in Psychology
Units: 4
Formerly known as PSYC 5
Prerequisite: Completion of PSYC C1000 with grade of "C" or better; completion of PSYC 142 or STAT C1000 with grade of "C" or better
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Introduction to research methodology, experimental design, and hypothesis testing in the behavioral sciences. Includes the execution, analysis (with statistical software), interpretation, and reporting of individual research projects. (C-ID PSY 205B) (CSU, UC)

PSYC 0106. Psychology of Adjustment
Units: 3
Formerly known as PSYC 6
Hours: 54 lecture
Basic theories of personal and social adjustment. Use of psychological principles and methods in adapting to the challenges of life. Topics include self image and self esteem, interpersonal relations, stress management, mental health and illness, and approaches to personal growth. (C-ID PSY 115) (CSU, UC)

PSYC 0107. Abnormal Psychology
Units: 3
Formerly known as PSYC 7
Advisory: Completion of PSYC C1000 with grade of "C" or better; Eligibility for ENGL C1000
Hours: 54 lecture
Introduction to descriptive psychopathology: the origin, nature, and treatment of psychological and behavioral disorders, including discussion of relevant ethical and diagnostic issues. Major topics include research methods, schizophrenia, anxiety-related disorders, trauma- and stressor-related disorders, depressive disorders, bipolar disorders, obsessive-compulsive and related disorders, personality disorders, eating disorders, substance use and addictive disorders, gender dysphoria, and conflicting models of psychopathology. (C-ID PSY 120) (CSU, UC)

PSYC 0108. Psychology of Death and Dying
Units: 3
Formerly known as PSYC 8
Hours: 54 lecture
An investigation of beliefs, attitudes, and behaviors associated with death, dying and bereavement. Terminal illness, suicide, euthanasia, last rites, legal aspects, death anxiety, cross-cultural beliefs and various philosophical views on the phenomenon of death are explored. (CSU, UC)

PSYC 0110. Psychology of Intimate Relationships and Family
Units: 3
Formerly known as PSYC 10
Also known as HDEV 21
Hours: 54 lecture
Study of the meaning and functions of intimate relationships and family. Consideration given to the nature of commitments, sexuality, alternative relationships, communication, conflict resolution, economics, parenting, crises, and marital separation. Recommended for majors in Human Development and Family and for those in human service careers. (CSU, UC)

PSYC 0127. Psychology of Women
Units: 3
Formerly known as PSYC 27
Hours: 54 lecture
A critical study of psychological theory and data on the cultural and societal factors that influence the development of gender identity and expression, and the ways in which these social constructions shape women's experience. Emphasis is placed on intersectionality with particular emphasis on the effects of culture, class, and ethnicity. (CSU, UC)

PSYC 0130. Human Sexuality
Units: 3
Formerly known as PSYC 30
Hours: 54 lecture
Overview of human sexuality from birth through adulthood: Covers major topics such as gender, sexual anatomy, sexually-transmitted infections, sexual response and disorders, sexual orientation, sexual coercion, and commercial sex. (C-ID PSY 130) (CSU, UC)

PSYC 0140. Introduction to Biopsychology
Units: 3
Formerly known as PSYC 40
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
An introduction to biopsychology focusing on the relationship between the nervous system and behavior. Emphasis on physiological, biochemical, and neuroanatomical foundations of behavior and mental processes. Topics include the central nervous system function and its relation to psychoactive drug effects, sensory/perceptual processes, sleep and dreaming, learning phenomena, memory mechanisms, human communication disorders, and abnormal behavior. (C-ID PSY 150) (CSU, UC)

PSYC 0140L. Biopsychology Laboratory
Unit: 1
Formerly known as PSYC 40L
Corequisite: Completion with grade of "C" or better or concurrent enrollment in PSYC 140
Hours: 54 laboratory
Focuses on the applied study of the nervous system and its connection to behavior. Specific topics include organization of the brain, anatomy and physiology of the neuron and an examination of sensory motor systems and states of consciousness. Students are introduced to sheep brain and cow eye dissection procedures, interactive computer simulation programs and lab experiments including EEG and EMG data collection. (CSU, UC)

PSYC 0142. Introduction to Psychological Statistics
Units: 3
Formerly known as PSYC 42
Prerequisite: Completion of MATH D with grade of "C" or better
Hours: 54 lecture
Statistical procedures used for experimental analysis in the social and behavioral sciences. Descriptive and correlational statistics, parametric and nonparametric inference tests, and current controversies in hypothesis testing. (C-ID MATH 110) (C-ID SOCI 125) (CSU, UC-with unit limitation)

PSYC 0150. Alcohol, Drugs and Society
Units: 3
Formerly known as PSYC 50
Hours: 54 lecture
The use, misuse, and abuse of all major families of psychoactive drugs, including opioids, stimulants, tobacco, marijuana, hallucinogens, alcohol, psychotherapeutic drugs, and sedative-hypnotics. Topics covered include cross-cultural usage, theories of addiction and treatment, government regulation, and mechanisms of drug action. (CSU)

PSYC 0160. Psychology and Film
Units: 3
Formerly known as PSYC 60
Hours: 54 lecture
Analysis of a selection of modern and contemporary films that have played a critical role in shaping and reflecting cultural assumptions and fears about psychology and psychological states. Examination of how motion pictures depict mental illness, relationships, and other psychologically relevant issues, as well as how films depict the field of psychology itself. Topics include universal themes, the psychological value of filmmaking and viewing, application of theories and concepts, accuracy in the depiction of psychological variables, and psychological impact. (CSU, UC)

PSYC 0180. Cultural Psychology
Units: 3
Prerequisite: Completion of PSYC C1000 with grade of "C" or better
Hours: 54 lecture
Examination of psychological principles and theory emphasizing both contemporary and historical research on the influence of culture on human mind and behavior. Topics include the interplay between culture and developmental processes, cognition, emotion, motivation, world-view development, communication, gender, sexuality, health, social behaviors and cultural evolution. (CSU, UC)

PSYC 0200. Introduction to Research Methods in Psychology
Units: 3
Prerequisite: Completion of PSYC C1000 with grade of "C" or better; completion of PSYC 142 or STAT C1000 with grade of "C" or better
Advisory: Completion of ENGL C1000 with grade of "C" or better
Hours: 54 lecture
Introduction to research methodology, experimental design, and hypothesis testing in the behavioral sciences. Includes reading psychological literature and report writing, psychological measurement, and the design and analysis of several study types (included but not limited to: case studies, survey research, field studies, correlational methods, and experimental methods. (C-ID PSY 200) (CSU, UC)

PSYC C1000. Introduction to Psychology
Units: 3
Formerly known as PSYC 100
Advisory: Eligibility for college-level writing (C-ID ENGL 100) and reading (a course with an existing skill of ability to read a college level text)
Hours: 54 lecture
This course is an introduction to psychology, which is the study of the mind and behavior. Students focus on theories and concepts of biological, cognitive, developmental, environmental, social, and cultural influences; their applications; and their research foundations. (C-ID PSY 110) (CSU, UC)

Recreation Management (RECM)

RECM 0001. An Exploration of Recreation, Hospitality and Tourism Industries
Unit: 1
Hours: 18 lecture
An exploration of the Recreation and Hospitality majors with an emphasis on degree options, career mapping, internship opportunities, job outlooks, occupational and professional requirements, pay ranges, and employer expectations. Students will get hands-on experience related to various Recreation, Hospitality and Tourism occupations and gain insight into job roles and responsibilities through guest speakers. (CSU)

RECM 0010. Foundations of Recreation, Parks, and Tourism Management
Units: 3
Hours: 54 lecture
A foundational course focusing on the history, nature, scope and social aspects of leisure services in Western and international cultures. Includes philosophical and ethical issues as well as exploration of possible career paths. (CSU)

RECM 0020. Program Planning and Event Management
Units: 3
Hours: 54 lecture
Theory, delivery systems and processes of program planning, implementation, and evaluation applicable to a variety of public and private agencies. Addresses programs that serve different age groups, interests and needs within a range of environments. Leadership for both professionals and volunteers presented in terms of their relationship to the human services field. (CSU)

RECM 0030. Leadership in Recreation, Parks, and Tourism Management
Units: 3
Hours: 54 lecture
Leadership of recreation activities with emphasis on the social development and integration of individuals into group programs, mechanics of planning, techniques of presentation and a repertoire of social activities as tools of social recreation. (CSU)

RECM 0040. Leisure Aspects of the Hospitality Industry
Units: 3
Hours: 54 lecture
Provide students with tools to review the structure and financial performances of the hospitality industry; food and lodging, resorts, tourism enterprises, attractions, and related operations. Focusing on orientation of customer service, cultural/economic trends, and career opportunities. (CSU)

RECM 0042. Recreation and Parks: Natural, Cultural and Heritage Resources
Units: 3
Hours: 54 lecture
Examines the use of natural, cultural, and heritage resources for recreation, tourism and leisure purposes in a variety of settings under various agencies. Includes the study of various protected areas and facilities, including parks, forests, museums, and cultural sites and how they are influenced by social trends, conflicting use demands, agency responsibilities, environmental considerations, and fiscal implications. (CSU)

RECM 0070. Backpacking
Units: 2
Formerly known as PHED 76
Hours: 54 (18 lecture, 36 activity)
Basics of minimum impact camping and wilderness safety with maximum personal comfort and enjoyment. Emphasizes "leave-no-trace" camping skills, wilderness navigation, shelter use and site selection, group dynamics and leadership. Students should be ambulatory and in good physical health to complete the two required backpacking field trips. Camping, entrance, and transportation fees may be required. (CSU, UC-with unit limitation)

RECM 0071. Rock Climbing
Units: 2
Formerly known as PHED 77
Hours: 54 (18 lecture, 36 activity)
Covers various aspects of climbing including: how to use rope systems and other climbing gear safely, how to tie and use various knots, belaying techniques, call signals, balance, climbing techniques, footwork, flexibility, and rappelling. Students should be ambulatory and in good health to complete the required field trips. Entrance and transportation fees may be required. (CSU, UC-with unit limitation)

RECM 0072. Wilderness Survival
Units: 2
Formerly known as PHED 78
Hours: 54 (27 lecture, 27 laboratory)
Designed to enhance the student's understanding of the outdoors and the natural world. Interactive discussions and experiments involving shelter, water, fire, food, tracking, hazards, and other basic survival skills. Field study required. (CSU)

RECM 0084. Hospitality: Hotel and Lodging Operations
Units: 3
Hours: 54 lecture
Overview of hotel and lodging operating systems, business practices and careers, to include: front office, housekeeping, property maintenance, food and beverage, human resources management, information systems and sales and marketing. (CSU)

RECM 0095. Internship in Recreation Management
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

RECM 0100. Introduction to Hospitality
Units: 3
Hours: 54 lecture
Overview of structure and financial performances of hospitality industry; food and lodging, resorts, tourism enterprises, attractions and related operations. Focus on orientation to customer service, cultural/economic trends and career opportunities. (CSU)

RECM 0120. Hospitality Cost Control
Units: 3
Advisory: Completion of BUS 201 and BUS 202 with grades of "C" or better
Hours: 54 lecture
Analyzing and managing: food, beverage, labor and other costs within a hospitality operation. Emphasis on problem solving, applying cost control techniques to maximize profits while managing expenses. Topics include: establishing standards, cost-volume-profit-analysis, forecasting, purchasing and storage controls, menu costing and pricing, theft prevention and labor control. (CSU)

Rise (RISE)

RISE 0001. First Year Seminar
Units: 3
Hours: 54 lecture
Introduction to interdisciplinary active reading skills, information literacy, financial literacy, critical thinking, and student success skills. Examines intersectionality and cultural humility as related to student identities, experiences, support, and engagement. (CSU, UC)

RISE 0801. First Year Seminar
Units: 0
Hours: 54 lecture
Introduction to interdisciplinary active reading skills, information literacy, financial literacy, critical thinking, and student success skills. Examines intersectionality and cultural humility as related to student identities, experiences, support, and engagement. (pass/no pass grading) (noncredit)

Skill Development (SKDV)

SKDV 0001. Techniques of Tutoring
Unit: 1
Formerly known as SKDV 21A
Advisory: Eligibility for ENGL C1000
Hours: 18 lecture
Introduction to learning theories, styles and techniques as related to tutoring. Fundamentals of communication and motivation for effective tutoring. Strategies for planning tutoring sessions. Tutoring techniques and resources for addressing unique student needs. (CSU)

SKDV 0010. How to be a Successful Online Student
Unit: 1
Hours: 18 lecture
Designed to develop the skills for success in the online classroom. Includes defining online learning and uncovering its myths; online readiness; netiquette; learning styles; time management, study habits, goal setting and motivational techniques; the importance of fostering online community; use of emerging technologies including wikis, blogs and VoiceThreads; student services and resources. Exploration of the use of the campus course management system, completion of basic computer tasks and effective use of Internet tools. (CSU)

SKDV 0020. Information Literacy and Research Skills
Unit: 1
Hours: 18 lecture
Development of information literacy skills for academic and personal research. Emphasis on identifying, locating, evaluating and using information resources. (CSU)

SKDV 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

SKDV 0801. Supervised Tutoring
Units: 0
Designed to assist students who desire supplemental tutoring or learning assistance in critical thinking, composition or computation in for all subjects. Tutorial or learning assistance content is based on student need and augments coursework. Use of tutorial or learning assistance services enrolls students in this non-fee, non-credit course, and does not substitute for any other course or coursework. May be repeated. (noncredit)

Sociology (SOC)

SOC 0001. Introduction to Sociology
Units: 3
Hours: 54 lecture
Sociological analysis of social institutions, social interaction and behavior, collective behavior, social change, deviance, conformity, and social stratification. (C-ID SOCI 110) (CSU, UC)

SOC 0002. Social Problems
Units: 3
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the study of major social problems, addressing areas such as social stratification and social institutions. Utilizes a critical approach and emphasizes the social construction of social problems. (C-ID SOCI 115) (CSU, UC)

SOC 0003. Race, Ethnicity and Inequality
Units: 3
Hours: 54 lecture
Examines the historical and contemporary impacts of the social constructs of race and ethnicity in the United States. Closely analyzes racial and ethnic inequalities within social institutions such as politics, economics, education, housing, health and medicine, and criminal justice. Explores anti-racist movements, strategies, and practices to eliminate racial and ethnic inequality. (C-ID SOCI 150) (CSU, UC)

SOC 0004. The Family
Units: 3
Also known as HDEV 22
Advisory: Completion of SOC 1 with grade of "C" or better
Hours: 54 lecture
A sociological approach to the analysis of the family as a social institution. Of particular interest are the changing structure of family, gender roles, dating, marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

SOC 0005. Sociology of Women's Health
Units: 3
Also known as WMST 5
Advisory: Completion of ENGL A with grade of "C" or better
Hours: 54 lecture
Provides a sociological analysis of health issues that concern women throughout their life course. The impact of physiology, psychology, culture, society, and politics upon women's well-being are addressed using the feminist perspective. (CSU, UC)

SOC 0009. Introduction to Crime, Deviance, and Social Control
Units: 3
Advisory: Completion with grade of "C" or better or concurrent enrollment in SOC 1
Hours: 54 lecture
Sociological analysis of crime, the criminal justice system, deviance, and mechanisms of social control. Explores the history and social construction of crime, criminality, and deviance. Examines definitions of crime and deviance as well as methods used to control deviant behavior. (C-ID SOCI 160) (CSU, UC)

SOC 0010. Feminism and Social Action
Units: 3
Also known as WMST 4
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
Examines sociological underpinnings of social action and explores unique contributions of feminism in challenging traditional gender scripts and roles. Provides an overview of the ways in which people engage in deliberative social action to change the conditions of their lives and of their communities. Emphasizes sociological theory as applied to issues related to the institutions of family, health, religion, employment, sexual harassment, housing, and interpersonal violence. Students in this course will actively engage in the exploration, analysis, and solutions of feminist issues. (CSU, UC)

SOC 0015. Introduction to Statistics in Sociology
Units: 3
Prerequisite: Completion of intermediate algebra or appropriate placement
Advisory: Concurrent enrollment in a support course (SOC 15S or SOC 815S) is strongly recommended for those who have not recently completed intermediate algebra
Hours: 54 lecture
Introduction to the use of descriptive and inferential statistics in the analysis of sociological data, including: levels and types of measurement, measures of central tendency and variability, distributions, probability, estimation, hypothesis testing, correlation, and regression. Social science statistical software will be explored as an aid in processing and analyzing sociological data. (C-ID SOCI 125) (CSU, UC-with unit limitation)

SOC 0015S. Support for Introduction to Statistics in Sociology
Unit: 1
Corequisite: Concurrent enrollment in SOC 15
Hours: 18 lecture
Support option covering the core prerequisite skills, competencies, and concepts for Statistics in Sociology. Intended for students who are concurrently enrolled in SOC 15. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of sociological data analysis. Strongly recommended for students enrolled in SOC 15 with little or no recent algebra knowledge. (not degree applicable) (pass/no pass grading)

SOC 0027. Sociology of Gender
Units: 3
Hours: 54 lecture
A cross-cultural comparison of gender roles, gender identities, and sexualities viewed from sociological perspectives. Examines the social construction of gender inequities and the debates on sex and gender. Analyzes the impact of social, cultural, and political factors on gender expectations and practices. (C-ID SOCI 140) (CSU, UC)

SOC 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

SOC 0047. Introduction to Hip Hop and Social Justice
Units: 3
Formerly known as SOC 11
Hours: 54 lecture
Defining Hip Hop as both a noun and a verb, this course takes a critical look at the history, role, and influence of Hip Hop on social reality. Evaluates both the impact Hip Hop has had on culture and the manipulation of Hip Hop within social institutions. Builds a framework of understanding for socio-political and cultural conditions in exploring hip hop as a vehicle to social change and justice. (CSU, UC)

SOC 0095. Internship in Sociology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

SOC 0110. Introduction to Social Justice
Units: 3
Hours: 54 lecture
Course focuses on the interdisciplinary study of social justice. Examines social justice movements in the United States in relation to key social groups and identities. Provides a better understanding of the socio-economic, cultural, and political conditions among these key social groups. Students in this course will actively engage in addressing social justice issues. (C-ID SJS 110) (CSU, UC)

SOC 0815S. Support for Introduction to Statistics in Sociology
Units: 0
Corequisite: Concurrent enrollment in SOC 15
Hours: 18 lecture
Support option covering the core prerequisite skills, competencies, and concepts for Statistics in Sociology. Intended for students who are concurrently enrolled in SOC 15. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of sociological data analysis. Strongly recommended for students enrolled in SOC 15 with little or no recent algebra knowledge. (noncredit)

Spanish (SPAN)

SPAN 0001. Elementary Spanish - Level I
Units: 5
Advisory: Eligibility for ENGL C1000
Hours: 90 lecture
First of two semesters of Elementary Spanish. A beginning course which offers students practice in speaking, understanding, reading and writing Spanish, along with exploration of cultural aspects of the Spanish-speaking world. Corresponds to two years of high school study. (C-ID SPAN 100) (CSU, UC)

SPAN 0002. Elementary Spanish - Level II
Units: 5
Prerequisite: Completion of SPAN 1 or two years of high school Spanish with grade(s) of "C" or better
Hours: 90 lecture
Second of two semesters of Elementary Spanish. Provides further practice in speaking, understanding, reading and writing Spanish, along with exploration of cultural aspects of the Spanish-speaking world. (C-ID SPAN 110) (CSU, UC)

SPAN 0003. Intermediate Spanish - Level I
Units: 4
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 72 lecture
First of two semesters of Intermediate Spanish. Continued development of grammar, cultural understanding, conversation skills, writing, and reading through the study of grammar and literature. Students will interact with authentic language in a cultural context. (C-ID SPAN 200) (CSU, UC)

SPAN 0004. Intermediate Spanish - Level II
Units: 4
Prerequisite: Completion of SPAN 3 or four years of high school Spanish with grade(s) of "C" or better
Hours: 72 lecture
Second of two semesters of Intermediate Spanish. Continued development of grammar, cultural understanding, conversation skills, writing, and reading through the study of grammar and literature. Students will interact with authentic language in a cultural context. (C-ID SPAN 210) (CSU, UC)

SPAN 0017. Intermediate Conversational Spanish
Units: 3
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 54 lecture
Develops increasingly complex language abilities through new vocabulary and more advanced grammatical structures. Emphasizes oral communication, grammatical, reading, and writing skills at the intermediate level, and further explores cultural customs. (CSU, UC)

SPAN 0019. Spanish for Public Safety
Units: 3
Hours: 54 lecture
Introductory course in Spanish designed for students whose professional careers take them to the Public Safety field. This course will provide students with the basic necessary skills to establish a conversation and handle situations with the Spanish-speaking public. (CSU)

SPAN 0020. Spanish for the Healthcare Professions
Units: 3
Prerequisite: Completion of SPAN 2 or three years of high school Spanish with grade(s) of "C" or better
Hours: 54 lecture
Intermediate course in Spanish designed for students whose professional careers and personal interest take them to the healthcare field. Course enables students to convey conversations with Spanish-speaking patients and their families. Students develop basic and intermediate skills in the target language to carry on medical/nursing functions or tasks. Helpful for students who have a basic knowledge of Spanish whose goal is to apply the target language to a healthcare setting. (CSU)

SPAN 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

Theatre Arts (THEA)

THEA 0010A. Acting I
Units: 3
Formerly known as DRMA 10A
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of acting techniques focusing on volume and diction, breathing, posture, stage movement and positioning, gestures and listening. Practice of character interpretation and expression through improvisation, selected scenes and monologues. (C-ID THTR 151) (CSU, UC)

THEA 0010B. Acting II
Units: 3
Formerly known as DRMA 10B
Prerequisite: Completion of THEA 10A with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of acting techniques focusing on approach to character development with particular emphasis on the realistic convention. Activities include one or more acting projects, as well as work on both contemporary and classical monologues and scenes. (C-ID THTR 152) (CSU, UC)

THEA 0011. Stage Movement
Units: 3
Formerly known as DRMA 11
Hours: 72 (36 lecture, 36 activity)
Analysis and practice of movement styles used in the theatre; basic movement, control, relaxation, and interpretation. Character development through physical exploration and scene study. (CSU, UC)

THEA 0013. Introduction to Theatre
Units: 3
Formerly known as DRMA 13
Hours: 54 lecture
Addresses the impact of theatre as it mirrors the human condition. Covers the social and political impact in the major historical periods, styles, and genres of theatre demonstrated by procedures, production practices, and contributions of significant individual artists, such as playwrights, actors, designers, and directors. Course is open to both majors and non-majors interested in acquiring a critical understanding and appreciation of theatre as a performing art. Required theatre production attendance. (C-ID THTR 111) (CSU, UC)

THEA 0014. Stagecraft
Units: 3
Formerly known as DRMA 14
Hours: 90 (18 lecture, 72 activity)
Covers set construction for main stage productions. Students study tools, hardware, painting, and learn proper construction techniques. Fundamentals of rigging and machinery and how to mount and shift stage scenery are also included. (C-ID THTR 171) (CSU, UC)

THEA 0015. Stage Lighting
Units: 3
Formerly known as DRMA 15
Hours: 90 (18 lecture, 72 activity)
Covers basic principles of color, light sources and instruments, electricity, how to hang, do circuiting, create a cue sheet, lighting plot, and design elements for stage lighting to run a theatrical production. (C-ID THTR 173) (CSU, UC)

THEA 0016A. Costume History
Units: 3
Formerly known as DRMA 16A
Hours: 54 lecture
Study of costumes from the Greek period to the present, with an emphasis on the use of historical costumes for the stage. Period costume design projects examined. Designed for both Theatre Arts majors and non-majors who are interested in acquiring an appreciation for and the terminology of apparel through history. (CSU, UC)

THEA 0016B. Costume Construction
Units: 3
Formerly known as DRMA 16B
Hours: 90 (18 lecture, 72 activity)
Study and implementation of costume construction techniques, from pattern drafting and fabric selection to sewing, serging, fitting, draping, and dyeing. (CSU, UC)

THEA 0017. Stage Makeup
Units: 3
Formerly known as DRMA 17
Hours: 90 (18 lecture, 72 activity)
Theory and practical application of stage make-up and prosthetics. Projects include facial structure alterations, "old age," character, supernatural and various faux injuries. Discussion and critique of student projects. (C-ID THTR 175) (CSU, UC)

THEA 0018. Acting for Musical Theatre
Units: 3
Prerequisite: Completion of MUS 10 with grade of "C" or better or permission from instructor following audition
Advisory: Completion of THEA 10A or MUS 39A with grade of "C" or better or at least one year of private vocal lessons
Hours: 72 (36 lecture, 36 activity)
Requisite acting techniques to be successful in performing in a Broadway style musical. While the focus of the course is on acting, proper techniques in singing and movement will also be included. Students will practice and perform solos and duets. Dance or heavy movement are not emphasized in this course. (CSU, UC)

THEA 0019A. Stage Properties
Units: 3
Formerly Known as DRMA 19A
Hours: 90 (18 lecture, 72 activity)
Covers basic skills to create stage properties through a variety of construction and acquisition methods including locating, procuring, and fabricating specialized props for main stage productions. Students examine ways to utilize common, unusual and specialized materials. Includes period research for prop implementation and identification. (CSU, UC)

THEA 0019B. Scenic Painting
Units: 3
Formerly known as DRMA 19B
Hours: 90 (18 lecture, 72 activity)
Study of scenic painting practices and standards including mixing and matching paints, implementing various painting techniques, and utilizing specialized and experimental materials and tools for practical use in theatrical productions. (CSU, UC)

THEA 0021. Script Analysis
Units: 3
Formerly known as DRMA 21
Hours: 54 lecture
Introduces Dramatic Arts Majors and other students to the fundamental techniques of script analysis. Focus on students' ability to interpret and describe concepts and ideas related to historical and contemporary dramatic literature. Emphasis on development of techniques of script analysis specific to use in acting, directing, design, and critical and social analysis. (C-ID THTR 114) (CSU, UC)

THEA 0022A. Production Crew I
Units: 2
Formerly known as DRMA 22A
Hours: 80 activity
Participation in a college production as a technical assistant, assistant to the designer, or crew member. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022B. Production Crew II
Units: 2
Formerly known as DRMA 22B
Prerequisite: Completion of THEA 22A with grade of "C" or better
Hours: 80 activity
Provides an opportunity for students to participate in a college production as a member of the technical crew or production staff at an intermediate level of responsibility. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022C. Production Crew III
Units: 2
Formerly known as DRMA 22C
Prerequisite: Completion of THEA 22B with grade of "C" or better
Hours: 80 activity
Provides an opportunity for students to participate in a college production in an intermediate leadership level as a member of the production crew. Focus on one or more of the following areas during the development of the play: scenery building and painting, stage lighting, make-up, costuming, stage operations, theatrical design, stage management, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0022D. Production Crew IV
Units: 2
Formerly known as DRMA 22D
Prerequisite: Completion of THEA 22C with grade of "C or better
Hours: 80 activity
Provides an opportunity to participate at an advanced leadership level as a member of the production crew, technical staff or design team of a college production. Focus on one or more of the following areas during the development of the play: scenery, lighting, make-up, costuming, stage operations, stage management, publicity, and/or house management. (C-ID THTR 192) (CSU, UC)

THEA 0023A. Rehearsal and Performance - Cast I
Units: 3
Formerly known as DRMA 12B, DRMA 23A
Hours: 120 activity
The first of four courses that provides an opportunity for students to perform in their first role in a Sierra College production as a member of the cast. Students develop fundamental rehearsal and performance techniques. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023B. Rehearsal and Performance - Cast II
Units: 3
Formerly known as DRMA 23B
Prerequisite: Completion of THEA 23A with grade of "C" or better
Hours: 120 activity
The second of four courses that provides an opportunity for students to perform in their second role in a Sierra College production as a member of the cast. Students investigate more sophisticated performance techniques as well as develop intermediate approaches to script analysis and characterization. All actors are required to audition for roles. Acceptance into the class is dependent upon being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023C. Rehearsal and Performance - Cast III
Units: 3
Formerly known as DRMA 23C
Prerequisite: Completion of THEA 23B with grade of "C" or better
Hours: 120 activity
The third of four courses that provides an opportunity for students to perform in their third role in a Sierra college production as a member of the cast. Students apply increasingly advanced rehearsal and performance techniques to the study of characters with great complexity and depth. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0023D. Rehearsal and Performance - Cast IV
Units: 3
Formerly known as DRMA 23D
Prerequisite: Completion of THEA 23C with grade of "C" or better
Hours: 120 activity
The fourth of four courses that provides an opportunity for students to perform in their fourth role in a Sierra College production as a member of the cast. Students apply an advanced skill set of acting techniques toward rehearsal and performance, and will be expected to chart in detail with critical analysis of the process from page to stage. This will include background research of their character, the playwright, reviews, and previous productions. All actors are required to audition for roles. Acceptance into the class is determined on being cast in the production. (C-ID THTR 191) (CSU, UC)

THEA 0024. Stage Management
Units: 3
Advisory: Completion of THEA 22A with grade of "C" or better
Hours: 90 (18 lecture, 72 activity)
Introduces students to the step-by-step process of stage managing a full-scale, live theatrical production. Students will learn the requisite pre-production, post-production, and performance day responsibilities in order to effectively manage the production. Skills acquired for this course include methods of communication with director, designers, cast and crew in a leadership position, writing rehearsal reports, monitoring rehearsals, and posting adjustments to the rehearsal schedule, running paper tech, cue-to-cue rehearsals, and calling cues for the performance over headset. (C-ID THTR 192) (CSU, UC)

THEA 0028. Independent Study
Units: 1-3
Formerly known as DRMA 28
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

THEA 0029. One Act Workshop
Units: 3
Hours: 81 (27 lecture, 54 activity)
Students will learn the basic requirements for mounting a one-act play from the perspectives of the director, backstage crew and actor. Classes will include lecture and rehearsal time culminating in a public performance of a one-act play. (CSU)

THEA 0030. Diversity in American Theatre
Units: 3
Advisory: Completion of THEA 13 with grade of "C" or better
Hours: 54 lecture
Introduction to the works and contributions of underrepresented communities to American theatre. The course will identify and deconstruct the historical references and significance of major playwrights, composers, and producing theatres created by Asian/Pacific Americans; Black/African Americans; Latinx Americans; European-Americans; Indigenous Americans; and other diverse groups. The theatrical works crafted by these populations will include subjects of race/racism, stereotypes, oppression, class, people with disabilities, and gender role/identity. Topics will be covered through readings, lectures, discussions, video, in addition to required viewing of play and musical productions. (CSU, UC)

THEA 0095. Internship in Theatre Arts
Units: 0.5-4
Formerly known as DRMA 95
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

THEA 0809. Selected Topics in Film Studies
Units: 0
Formerly known as DRMA 809
Hours: 8 to 54 lecture as scheduled
Course designed for older adults. Introduction to a series of films examined for originality, creative virtuosity, impact, structure, and direction. Selected films illustrate a specific dimension of film genre. Genres change with each offering. May be repeated. (noncredit)

Welding Technology (WELD)

WELD 0001A. Introduction to Welding and Fabrication
Units: 2
Formerly known as WELD 15
Hours: 72 (18 lecture, 54 laboratory)
Hands-on survey class that focuses on the three common welding processes of Manual Metal Arc Welding, Gas Metal Arc Welding, and Gas Tungsten Arc Welding, including correct setup and "how to" techniques. Plasma Arc Cutting and Oxyacetylene Cutting processes are also covered. This class is a survey of basic welding, cutting and fabrication used by the welding industry, metalworking artists, and interested hobbyists. Perfect for students who have never welded before. (CSU)

WELD 0001B. Basic Welding Fabrication
Units: 2
Formerly known as WELD 70
Prerequisite: Completion of WELD 1A with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Foundational fabrication course includes elements of design and fabrication methods, tool and equipment utilization, materials planning, and print reading. Designed for welding students wanting to learn the basic skills of welding shop steel fabrication. (not transferable)

WELD 0002A. Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 2
Formerly known as WELD 40
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Metal Arc Welding. Explores the various modes of metal transfer when using the Gas Metal Arc Welding process. Prepares students to work in welding shop environment. (not transferable)

WELD 0002B. Gas Metal Arc Welding of Stainless Steel on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 2A with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Covers equipment, metal preparation, and welding of stainless steels in all positions using Gas Metal Arc Welding. Instruction in equipment setup for different metals, filler selection, material identification, and welding techniques using Gas Metal Arc Welding. Students will learn to read and correctly complete welding procedures performed in industry. Helps prepare students for employment in high demand jobs. (not transferable)

WELD 0002C. Gas Metal Arc Welding Certifications on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 2B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Practice and completion of Gas Metal Arc Welding Certifications on sheet and plate. Upon successful completion of the course, students will hold multiple industry-recognized welding certifications in Gas Metal Arc Welding on sheet and plate in 3G and 4G welding positions. Students may choose to seek employment after successful completion of this course. (not transferable)

WELD 0003A. Gas Tungsten Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 2
Formerly known as WELD 10
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Tungsten Arc Welding. Prepares students to work in welding shop environment. (CSU)

WELD 0003B. Gas Tungsten Arc Welding of Mild Carbon and Stainless Steel on Sheet and Plate
Units: 2
Formerly known as WELD 50
Prerequisite: Completion of WELD 3A with grade of "C" or better
Hours: 72 (18 lecture, 72 laboratory)
Covers equipment, metal preparation, and welding of stainless steels in all positions using Gas Tungsten Arc Welding. Instruction in equipment setup for different metals, filler selection, material identification, and welding techniques using Gas Tungsten Arc Welding. Students will learn to read and correctly complete welding procedures performed in industry. Helps prepare students for employment in high demand jobs. (CSU)

WELD 0003C. Gas Tungsten Arc Welding Certifications on Sheet and Plate
Units: 2
Prerequisite: Completion of WELD 3B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Practice and completion of Gas Tungsten Arc Welding Certifications on sheet and plate. Upon successful completion of the course, students will hold multiple industry-recognized welding certifications in Gas Tungsten Arc Welding on sheet and plate in 3G and 4G welding positions. Students may choose to seek employment after successful completion of this course. (not transferable)

WELD 0005A. Manual Metal Arc Welding of Mild Carbon Steel Fillet Welds
Units: 2
Formerly known as WELD 20
Hours: 72 (18 lecture, 54 laboratory)
An introduction to the principles of manual metal arc welding (MMAW), setup/use of MMAW equipment, and safe use of tools and equipment. Provides instruction in welding mild carbon steel fillet weld joints in various positions. Prepares students who wish to pursue a career in structural or pipe welding outdoors at various construction sites. (C-ID WELD 101X) (not transferable)

WELD 0005B. Manual Metal Arc Welding of Mild Carbon Steel Groove Welds
Units: 2
Formerly known as WELD 25
Prerequisite: Completion with grade of "C" or better or concurrent enrollment in WELD 5A
Hours: 72 (18 lecture, 54 laboratory)
An expansion of the principles of Manual Metal Arc Welding (MMAW). Provides instruction in welding mild carbon steel groove weld joints in various positions, with backing and open root joints. Prepares students who wish to pursue a career in structural or pipe welding outdoors at various construction sites. (not transferable)

WELD 0005C. Manual Metal Arc Welding Certifications on Closed and Open Root Plate
Units: 2
Formerly known as WELD 80
Prerequisite: Completion of WELD 5B and WELD 2A with grades of "C" or better
Advisory: Students must be competent in vertical and overhead position welding using certification welding processes of MMAW, FCAW-G and FCAW-S
Hours: 72 (18 lecture, 54 laboratory)
Designed to certify the welder within the guidelines of American Welding Society (AWS) Structural Steel Code D1.1. Focus on manipulative skill development with MMAW E-7018 in 3G and 4G, MMAW E-6010 in 3G and 4G open root. Students will earn industry recognized certifications in Manual Metal Arc Welding. (not transferable)

WELD 0011. Welding Metallography
Units: 4
Formerly known as WELD 60
Prerequisite: Completion of WELD 1A, WELD 2A, WELD 3A or WELD 5A with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)
Exploration of the production and properties of ferrous metals used in the welding industry. The chemical and physical properties of metals, crystallization, and theoretical concepts of alloying. Laboratory experiments in metal identification, hardness and destructive testing, heat treating, sample preparation, and microphotography. (CSU)

WELD 0015A. Manual Metal Arc Welding on Pipe Level 1
Units: 2
Formerly known as WELD 30
Prerequisite: Completion of WELD 5B with grade of "C" or better
Hours: 72 (18 lecture, 54 laboratory)
Welding of pipe using accepted practices of industry with Manual Metal Arc Welding Process. Emphasis on the welding techniques used for out-of-position welding (2G, 5G, 6G, and 6GR pipe full penetration welds). (CSU)

WELD 0028. Independent Study
Units: 1-3
Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU)

WELD 0095. Internship in Welding Technology
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

WELD 0801A. Introduction to Welding and Fabrication
Units: 0
Hours: 72 (18 lecture, 54 laboratory)
Hands-on survey class that focuses on the three common welding processes of Manual Metal Arc Welding, Gas Metal Arc Welding, and Gas Tungsten Arc Welding, including correct setup and "how to" techniques. Plasma Arc Cutting and Oxyacetylene Cutting processes are also covered. This class is a survey of basic welding, cutting, and fabrication used by the welding industry, metalworking artists, and interested hobbyists. Perfect for students who have never welded before. (noncredit)

WELD 0802A. Gas Metal Arc Welding of Mild Carbon Steel on Sheet and Plate
Units: 0
Hours: 72 (18 lecture, 54 laboratory)
Designed for those interested in beginning stages of welding. Students are taught to weld on mild carbon steel sheet and plate in various welding positions and joint configurations using Gas Metal Arc Welding. Explores the various modes of metal transfer when using the Gas Metal Arc Welding process. Prepares students to work in welding shop environment. (noncredit)

WELD 0810. Welding Technology Industry Training 1
Units: 0
Hours: 42 (6 lecture, 36 laboratory)
Covers welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Metal fabrication skills for specific employment needs and welding certification testing are provided as requested by employers. (noncredit)

WELD 0811. Welding Technology Industry Training 2
Units: 0
Hours: 42 (6 lecture, 36 laboratory)
Covers advanced welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Advanced metal fabrication skills for specific employment needs and advanced welding certification testing are provided as requested by employers. (noncredit)

Women and Gender Studies (WMST)

WMST 0001. Introduction to Women's Studies
Units: 3
Prerequisite: Eligibility for ENGL N
Hours: 54 lecture
Introduction to the origins, purpose and methods of Women's Studies. The subject matter will explore a wide range of social issues affecting women of diverse backgrounds and identities. Gender will be studied as it intersects with race, ethnicity, sexuality, class, dis/ability, age, religion, nationality and other systems of difference. (C-ID SJS 120) (CSU, UC)

WMST 0002. Introduction to LGBT Studies/Queer Theory
Units: 3
Also known as LGBT 1
Hours: 54 lecture
A broad and general exploration of Lesbian, Gay, Bisexual, Transgender, Queer Studies and its relationship to Feminism. Emphasis on Sexual Orientation/Gender Identity and Expression and their intersections with Race/Ethnicity, Class, the LGBT Rights movement in the United States and globally. (C-ID SJS 130) (CSU, UC)

WMST 0003. Introduction to Women, Gender and Religion
Units: 3
Also known as HUM 9
Advisory: Eligibility for ENGL C1000
Hours: 54 lecture
Religion from a feminist perspective through a cross-cultural examination of major religious traditions of the East and West, as well as tribal faith practices. Emphasis on the historical role of women and gender in rituals, sacred texts, institutional structures, doctrine and religious iconography with respect to the impact on contemporary women regarding faith, politics and identity. (CSU, UC)

WMST 0004. Feminism and Social Action
Units: 3
Also known as SOC 10
Advisory: Completion of ENGL N with grade of "C" or better
Hours: 54 lecture
Examines sociological underpinnings of social action and explores unique contributions of feminism in challenging traditional gender scripts and roles. Provides an overview of the ways in which people engage in deliberative social action to change the conditions of their lives and of their communities. Emphasizes sociological theory as applied to issues related to the institutions of family, health, religion, employment, sexual harassment, housing, and interpersonal violence. Students in this course will actively engage in the exploration, analysis, and solutions of feminist issues. (CSU, UC)

WMST 0005. Sociology of Women's Health
Units: 3
Also known as SOC 5
Advisory: Completion of ENGL A with grade of "C" or better
Hours: 54 lecture
Provides a sociological analysis of health issues that concern women throughout their life course. The impact of physiology, psychology, culture, society, and politics upon women's well-being are addressed using the feminist perspective. (CSU, UC)

WMST 0006. Introduction to Disability Studies
Units: 3
Hours: 54 lecture
Overview of the social and personal meaning of disability and chronic illness. Students will explore definitions and conceptual models for the study of disability, the history of disabled people, bio-ethical perspectives, the depiction of disability in literature and the arts, public attitudes, and legal/social policies. The course will investigate the intersections of disability with social factors such as gender, sexual orientation, race, ethnicity, and class. Community engagement is a key component throughout the course. (CSU, UC)

WMST 0095. Internship in Women and Gender Studies
Units: 0.5-4
Designed for advanced students to work in an area related to their educational or occupational goal. Provides new on-the-job technical training under the direction of a worksite supervisor, allowing students to expand knowledge and skills in the chosen field. Mandatory orientation session and faculty approval to determine eligibility. One unit of credit is equal to 54 hours of work. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

WMST 0300. Selected Topics in Women and Gender Studies
Units: 1-3
Hours: 18 lecture per unit
Examines various topics within the field of women's and gender studies. Different issues will be covered based on the interests and expertise of the faculty teaching the course. Approaches topics from broadly intersectional perspectives using feminist concepts and methods. Potential topics include: Disability, Death and Caregiving; Gender and Creativity; Masculinity; Gender and Wellness; Feminism War; Gender and Social Movements; Gender Human Rights; Reproductive Justice; New Feminisms. (CSU)

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