

A photograph of a college campus in autumn. Large trees with vibrant orange, red, and yellow leaves dominate the foreground and middle ground. In the background, a black metal fence separates a paved walkway from a grassy area. Several students are visible: two sitting at a table, two walking, and a couple sitting on a bench. A building with a covered walkway is partially visible behind the fence. The sky is overcast and grey.

SIERRA COLLEGE
Catalog
2015–2016

Dream. Learn. Do.

Rocklin. Roseville. Grass Valley. Truckee. Online.

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ABOUT SIERRA

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Locations and Contact Information

Sierra Joint Community College District

Rocklin Campus

5000 Rocklin Road
Rocklin, California 95677
(916) 624-3333

Nevada County Campus

250 Sierra College Drive
Grass Valley, California 95945
(530) 274-5300

Tahoe-Truckee Campus

11001 College Trail
Truckee, California 96161
(530) 550-2225

Roseville Gateway Center

333 Sunrise Avenue
Roseville, California 95661
(916) 781-6200

www.sierracollege.edu

District Mission and Institutional Outcomes

Mission Statement

Sierra College provides 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's programs and services encourage students to identify and to expand their potential. Sierra College students are supported in developing the knowledge, skills and abilities to be fully engaged and contributing members of the community.

Vision Statement

We will challenge ourselves and our community to become fulfilled citizens in a global environment by contributing to and engaging in the thoughtful application of knowledge guided by respect for others and the world in which we live.

Core Values

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

1. Support and model excellence in teaching, learning, scholarship, and creativity.
2. Provide the tools for continuing success in an ever-changing world.
3. Provide and demonstrate the value of an inclusive and equitable community.
4. Demonstrate collaboration in decision making.
5. Foster active citizenship in our community, our nation, and our world.
6. Create and nurture meaningful connections to our community.
7. Recognize that students are active participants in their education.
8. Support and demonstrate the sustainable use of all resources.

Student Learning Outcomes

Student learning outcomes 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 2015

August 24	INSTRUCTION BEGINS
September 5-7	Holiday (Labor Day)
September 7	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 8	Census Date
September 18	Deadline to Initiate Credit By Examination (Challenge)

September 25	Last Day to Request Pass/No Pass Grading for Full-Semester Class
October 1	Last Day to Request December 2015 Degree or Certificate
November 3	Last Day to Withdraw from Full-Semester Class and Receive a "W"
November 13	Holiday (Veterans Day)
November 26-28	Holiday (Thanksgiving)
December 12	Semester Ends
December 19- January 3	Campus Closed

Spring Semester 2016

January 18	Holiday (Dr. Martin Luther King, Jr. Day)
January 25	INSTRUCTION BEGINS
February 7	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 8	Census Date
February 12-15	Holiday (Presidents' Weekend)
February 19	Deadline to Initiate Credit By Examination (Challenge)
February 29	Last Day to Request Pass/No Pass Grading for Full-Semester Class
March 1	Last Day to Request May and/or August 2016 Degree or Certificate
March 21-26	Spring Break
April 14	Last Day to Withdraw from Full-Semester Class and Receive a "W"
May 19	Commencement—Nevada County Campus
May 20	Commencement—Rocklin Campus
May 20	Semester Ends
May 30	Holiday (Memorial Day)

Summer 2016

June 13	INSTRUCTION BEGINS
July 4	Holiday (Independence Day)
August 4	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.

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 Association. Men and women student athletes have earned five different 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, and is authorized to operate under the U.S. Department of Education through the Higher Education Opportunity Act of 2008. ACCJC may be contacted at:

10 Commercial Boulevard
Suite 204
Novato, CA 94949
(415) 506-0234
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.

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.

Center for Applied Competitive Technologies (CACT)

Serves small to medium sized manufacturing and technology companies by providing technical assistance, technology transfer, and workforce training. Services are delivered via demonstration sites, workshops, and business consulting. For further information see the website at www.sierracollegetraining.com/cact.php (<http://www.sierracollegetraining.com/cact.php>).

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. The Kaleidoscope schedule of not-for-credit, fee-based classes is published in spring, summer, and fall. Classes are offered in areas of business, career, computers, creative arts, food and wine, health, home and garden, and many other current interest subjects. Additionally, special activities such as sports camps, motorcycle training, bus trips and extensive travel are offered. 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 Education website at www.sccommed.org (<http://www.sccommed.org>).

Distance Learning

Online and television courses which allow students to complete college studies from the convenience of their home. Online courses may be accessed from anywhere at anytime through an Internet connection. Hybrid courses, which are a combination of online and on-ground formats, are also offered. Television courses are broadcast live and distributed to various cable companies within the District, streamed live on the Internet, and available on iTunes U. Students interact with the professor via telephone.

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.

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 OLLI website at www.sierracollege.edu/olli (<http://www.sierracollege.edu/olli>).

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

Counseling Services

Professional counselors provide assistance with vocational and academic assessments, career planning, course advisement, transfer assistance and personal/crisis counseling.

Support Services

Services include admissions and records, financial aid, scholarships, housing, tutoring, EOPS/CARE, CalWORKs, TRiO, health services and support for disabled students, former foster youth, international students and veterans.

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 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 at www.sierracollege.edu/about-us/board/policies (<http://www.sierracollege.edu/about-us/board/policies>).

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
5000 Rocklin Road
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

Bob Romness

Area 1

Dave Ferrari

Area 2

Scott Leslie, Board Vice President/Clerk

Area 3

Bill Halldin, Board President

Area 4

Cari Dawson Bartley

Area 5

Nancy B. Palmer

Area 6

Aaron Klein

Area 7

Student Trustee

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

A

Sharon Adams

Dean, Student Services

B.A., Patten College

M.A., Point Loma Nazarene College

Ed.D., Alliant International University

B

Steven (Estifanos) Baissa

Dean, Student Equity

B.A., St. Olaf College
M.B.A., California State University, Sacramento

Kimberly Bateman

Dean, Sierra College - Tahoe-Truckee Campus

B.A., Sierra Nevada College
M.A., Humboldt State University
Ph.D., Pacifica Graduate Institute

Rebecca Bocchicchio

Dean, Liberal Arts

B.A., California Polytechnic State University, San Luis Obispo
M.A., University of California, Davis
Ph.D., University of California, Davis

C

Erik Cooper

Dean, Planning, Research and Resource Development

B.A., California State University, Sacramento
M.S., University of Oregon
Ed.D., California State University, Sacramento

D

Mandy Davies

Assistant Superintendent/Vice President, Student Services

B.A., Mills College
M.A.T., Alaska Pacific University
M.P.A., Arizona State University

Ryan Davis

Assistant Superintendent/Vice President, Human Resources

B.A., University of California, Riverside
M.Ed., National University
J.D., University of the Pacific

William Duncan, IV

Superintendent/President

B.S., California State University, Bakersfield
M.B.A., California State University, Bakersfield

E

Patricia Efsseaff

Dean, Student Services

B.A., University of California, Berkeley
M.A., University of San Francisco

F

Anne Fleischmann

Associate Dean, Liberal Arts

B.A., Haverford College
M.A., Columbia University, New York City
Ph.D., University of California, Davis

J

Darlene Jackson

Associate Dean, Business and Technology

B.S., University of California, Davis
M.A., Mills College

L

Sonja Lolland

Dean, Business and Technology

B.A., University of California, Davis
M.B.A., California State University, Sacramento
Ed.D., University of California, Davis

Susan Lucyga

Associate Dean, Liberal Arts

B.A., University of Hawaii, Manoa
M.A., Old Dominion University

M

Lucas Moosman

Dean, Athletics/Athletic Director

B.A., University of Redlands
M.A., University of California, Berkeley

O

Stephanie Ortiz

Executive Dean, Sierra College - Nevada County Campus

B.A., California State University, Fullerton
M.S., California State University, Long Beach

P

Sabrina Pape

Dean, Library and Learning Resource Center

B.A., State University of New York at Geneseo
M.L.S., State University of New York at Geneseo

R

Heather Roberts

Dean, Sciences and Mathematics

B.S., Texas A and M University
M.S., Baylor University
Ph.D., Texas Tech University

S

Nancy Schwab

Associate Dean, Allied Health

B.S.N., University of Cincinnati
M.S.N., Ohio State University

Debra Sutphen

Assistant Superintendent/Vice President, Instruction

B.S., Northern Arizona University
M.A., Northern Arizona University
Ph.D., Washington State University

Y

Christopher Yatooma

Assistant Superintendent/Vice President, Administrative Services

B.A., Wayne State University
M.A., University of Maryland University College

Faculty

A

Barry Abrams

Professor, English

B.A., Claremont McKenna College
M.A., University of California, Los Angeles
Ph.D., University of California, Los Angeles

Scott Adams

Assistant Professor, Drama

B.A., California State University, Sacramento
M.A., California State University, Sacramento

Charles Albright

Assistant Professor, Mathematics

B.A., California State University, Sacramento
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Alejandro Amigo

Professor, Earth Science

M.S., University of Buenos Aires
Ph.D., University of Florida
M.A., University of California, Davis

Kirkman Amyx

Assistant Professor, Photography

B.F.A., Art Center College of Design
M.F.A., San Jose State University

Jacqueline Anderson

Professor, Mathematics

B.A., Westmont College
M.S., University of Nevada, Reno

Matt 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

Cheryl Axton

Professor, Counseling

B.A., Sonoma State University
M.A., Chapman University

B

Paul Badaracco

Professor, Biological Sciences

B.A., University of California, Santa Barbara
M.A., University of California, Santa Barbara

Daniel Balaguy

Professor, Mathematics

B.A., California State University, Sacramento
M.S., University of Montana

Maile Barron

Professor, Mathematics

B.S., University of California, Davis
M.A.T., University of California, Davis

B.S., California State University, Sacramento

Alfred Batchelder

Professor, English

B.A., California State University, Sacramento
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M.A., University of Oregon
Ph.D., University of California, San Diego

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M.A., California State University, Sacramento

W

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B.S., San Jose State University

M.B.A., San Jose State University
Certified Public Accountant

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

William Wenzel

Professor, Welding Technology

A.A., American River College

Margaret Williams

Professor, Communication Studies

B.A., California State University, Sacramento
M.A., California State University, Sacramento
Ed.D., University of California, Davis

Robert Willson

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Alexander Wong

Professor, Automotive Technology

A.A., San Francisco City College
B.S., San Jose State University
M.S., University of Cincinnati
Professional Engineer

Ian Wu

Professor, Mathematics

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M.A., California State University, Sacramento

Y

Dean Yoshizumi

Professor, Psychology

B.A., California State University, Fullerton
M.A., California State University, Los Angeles
Ph.D., University of Iowa

Z

Nicholas Zoffel

Professor, Communication Studies

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B.A., San Jose State University
M.A., San Jose State University
Ph.D., Bowling Green State University

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Judy Ahlquist

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D'Ambra Amaro-Mendoza
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Welding Technology

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Distance Learning

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Jarrett Blake
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George Bromm
Earth Science

Daniel Brown
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Greg Brown
Reprographics

Ron Brown
Reprographics

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Information and Instructional Technology

Robert Buderer
Automotive Technology

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Christine Calvert
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Aracely Canon
Liberal Arts

Rikki Cartwright
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Human Resources

Kerrie Cassidy

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Dade Clark

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Custodial

Sonni Cooper

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Olivia Correia

Custodial

Joe Corro

Custodial, SC-NCC

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Facilities Maintenance, SC-TTC

Cary Cose

Facilities Maintenance, SC-TTC

Kourtney Crandell

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Christina Culley

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Counseling

Dianne Dakis

Payroll

Spencer Davis

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Chris Davison

Grounds Maintenance

Robert Dean

Information and Instructional Technology

Monica Delbar

Liberal Arts

Christopher Derks

Learning Resource Center

Sheila Dobbin

Career and Transfer Connections

Ninette Dollesin

Instruction

Laurie Donahue

Finance and Administration

Cassandra Donnelly

Outreach

Greg Dorando

Information and Instructional Technology

Tabitha Dorando

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Laura Doty

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Custodial

Ruth Echavarria

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Scott Ergas

Student Equity

Liliya Fedorchuk

CalWORKs

Caroline Fernandes

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Matt Fertel

Applied Art and Design/Photography

Linda Fisher

Finance

Edward Fisk

Custodial, SC-NCC

Dawn Flannery

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Lorraine Flynn

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Sydney Gatson

TRiO

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Aleksandr Gladyshev
Custodial

Nataliya Gladyshev
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Yvonne Glashan
Financial Aid

Ryan Goodpastor
Residence Life

James Griffin
Financial Aid, SC-NCC

Sandra Guarcello
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Jeanne Guerin
Writing Center

Sally Guess
Finance

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Laura Harris
Instruction

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Mathematics

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Campus Life

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Maria Hernandez
English as a Second Language

Celeste Hewitt
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Student Equity

Riana Howard
Student Equity

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Colin Irwin
Facilities and Operations

Brandon Johnson
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Sue Keller
Health, Physical Education, Recreation/Athletics

Craig Kelly
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Deborah Kenitzer
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Sergey Khudyakov
Custodial

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Custodial

Tim Kyle
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Agriculture/Biological Sciences

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Payroll

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Center for Applied Competitive Technologies

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Dennese Phleger

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Anna Platz

Bursar's Office

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Kara Rodriguez

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Sarah Sanders

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Peter Schlamp

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Sarah Schweyer

Sciences and Mathematics

Thad Selmants

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Facilities Maintenance

Oleg Slabchak

Transportation

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Osher Lifelong Learning Institute

Scott Snyder

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Earl Syversen

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Wednesday Taylor

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Melinda Thomas

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Theater Production

Thor Tivol

Theater Production

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Danita Tucker

Parking and Security

Mark Tucker

Plant Operations

Alistair Turner

Outreach/International Students

Teri Turner

Purchasing/Students

Li Yin Twang

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Corrine Vieira

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Maria Von Der Ahe

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Reprographics

David Waite

Research and Planning

Valarie Walker

Public Safety

Peggy Wallace

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Student Success and Support

Judy Wasley

Admissions and Records

Cody Watson

Learning Center

Patty White

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Trudie Wiggins

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Linda Williams

Financial Aid

John Willoughby

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Rudy Yanez

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Accounts Payable

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Gerrold W. Anderson

Design Drafting

Gerald C. Angove

President and District Superintendent

Nancy Allsup

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David Auslam

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Linda Atoms

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Linda Banta

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Dean, Planning, Research and Resource Development

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Bright Rope

(James Thomas)

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Bruce W. Broadwell

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Chemistry

Sheila R. Butler

Counseling

William Carmody

Music

Craig D. Chamberlain

Construction Technology

Rex H. Chappell

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Robert H. Corbett

Psychology

Donald Cospers

Sociology

John R. Creelman

Economics/History

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D. Charles Dailey

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Perry Edwards

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Susan Eiland-Rickman

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Roy T. Elliott

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C. David Emerson

Counseling

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Dean, Student Services

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Neal Lemerise

Forestry

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Jacquelynn J. Marchi

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Cynthia G. Mariano

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Patt McDermid

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Counseling

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Drafting Technology/Engineering

Barton E. Newlin
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Laurie S. Pieracci
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Terry Prouty
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Roger V. Rasmussen
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Ernest R. Riley
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Fernando Rodriguez
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Valerie A. Rogers
Counseling

F. Barton Ruud
Counseling

Irene C. Sadler
French

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Roger J. Tofft

Physical Education

Tennis Tollefson

Fire Technology

Susan Trant

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Bill M. Tsuji

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Chemistry

Jerry D. Van Rein

Agriculture

John F. Volek

Dean of Athletics

Sandi Lou Warren

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Frederick A. Weber

Music

Keith L. Weidkamp

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Margaret R. White

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Donald C. Whitehead

Music

Elaine K. Whittlesy

Mathematics

Edward C. Wicks

Construction Technology

Larry C. Wight

History/Political Science

Nicholas S. Willick

Administration of Justice

Harriet S. Wilson

Biological Sciences

Woodrow Wilson

Director, District Planning

Richard F. Yoo

Public Speaking

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Dean

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Associate Dean

Darlene Jackson

Department Coordinator

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Division Office

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Department Office

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Department Phone

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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 including effective patrol services to the public; courts, specializing in responsibilities to the public through the trial system; corrections, where the deviant member of society is subjected to society's effort to change the deviant behavior; and in-service training courses certified by Police Officer Standards and Training (POST).

The Administration of Justice program offers a number of POST approved certificated police officer training programs. The department offers two of the three modules (ADMJ 0115 and ADMJ 0120) necessary to meet the training requirements to be a California Police Officer. Successful completion of these two modules allows students to be hired as Level II Reserve Police Officers.

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 positions in law enforcement, retail security, corrections and pre-law.

Faculty

Corey Morgan

Assistant Professor, Administration of Justice

B.S., Union Institute and University

M.S., Saint Joseph's University

Blair Spaulding

Professor/Coordinator, Administration of Justice

B.A., University of California, Santa Barbara

Liaison Counselors

Terri Maddux, Paul Neal

Administration of Justice Advisory Committee

- Brandon Banks, Owner, Security and Firearms Training Academy, North Highlands
- Ed Bonner, Sheriff, Placer County, Auburn
- Michael Doane, Lieutenant, Roseville Police Department
- Angela Ford, District Attorney, Placer County
- John Foster, Police Chief, Grass Valley Police Department
- Suzanne Gazzaniga, Superior Court Judge, Placer County
- Missy Morris, Training Coordination, Roseville Police Department
- Greg Murphy, Lieutenant, University of California, Davis Police Department
- Forrest Richardson, Lieutenant, Rocklin Police Department
- Mario Rodriguez, Senior Consultant, POST
- Dan Ruden, Chief of Police, Lincoln Police Department
- John Ruffcorn, Chief of Police, Auburn Police Department
- Ralph Swasey, ROP Law Enforcement Instructor, Placer and Del Oro High Schools
- Brian Vizzusi, Lieutenant, Galt Police Department
- Richard Ward (Retired), Captain, California Highway Patrol

Degrees/Certificates

Associate Degree for Transfer

- Administration of Justice for Transfer (p. 29)

Associate Degrees

- Administration of Justice—Corrections Concentration (p. 30)
- Administration of Justice—Courts Concentration (p. 30)
- Administration of Justice—Law Enforcement Concentration (p. 30)

Skills Certificate

- Reserve Peace Officer (p. 31)

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 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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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	General Principles of Psychology	
SOC 0001	Introduction to Sociology	
SOC 0015	Introduction to Statistics in Sociology	
	or MATH 0013 Elementary Statistics	

Total Units **18-19**

Administration of Justice—Corrections Concentration

AA or AS Degree

The Corrections Concentration 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 (p. 250);
- California State University General Education Breadth pattern (p. 257);
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	2
Select 6 units from the following:		6
ADMJ 0052	Criminal Court Process	

ADMJ 0056	Introduction to Evidence	
ADMJ 0060	Defensive Tactics for Law Enforcement	
ADMJ 0061A	Firearms Familiarization	
ADMJ 0061B	Advanced Firearms	
ADMJ 0069	Institutional Corrections and Casework	
ADMJ 0070	Substantive Law	
ADMJ 0072	Illegal Drugs - Recognition and Influence	
ADMJ 0073	Writing for Criminal Justice	
ADMJ 0074	Computer Use in Criminal Justice	
ADMJ 0075	Values and Ethics in Criminal Justice	
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	

Total Units **23**

Administration of Justice—Courts Concentration

AA or AS Degree

The Courts Concentration 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 (p. 250);
- California State University General Education Breadth pattern (p. 257);
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	2

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

ADMJ 0070	Substantive Law	
ADMJ 0073	Writing for Criminal Justice	
ADMJ 0074	Computer Use in Criminal Justice	
ADMJ 0075	Values and Ethics in Criminal Justice	
ADMJ 0077	Terrorist Tactics and the Role of the First Responder	
ADMJ 0200	Family Violence: Spousal/Partner, Child and Elder Abuse	

Total Units **23**

Administration of Justice—Law Enforcement Concentration

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	2
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 0060	Defensive Tactics for Law Enforcement	
ADMJ 0061A	Firearms Familiarization	
ADMJ 0061B	Advanced Firearms	
ADMJ 0061C	Firearms: Semi-Automatics	
ADMJ 0061D	Firearms Instructor	
ADMJ 0061E	Firearms Instructor POST	
ADMJ 0070	Substantive Law	
ADMJ 0072	Illegal Drugs - Recognition and Influence	
ADMJ 0073	Writing for Criminal Justice	
ADMJ 0074	Computer Use 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 0088	Computer Forensics Fundamentals (also CIS 88)	
ADMJ 0089	Fraud Examination	
ADMJ 0110	P.C. 832: Arrest and Control	
ADMJ 0112	P.C. 832: Firearms	
ADMJ 0115	POST Modular III Training	
ADMJ 0120	POST Modular II Training	
ADMJ 0200	Family Violence: Spousal/Partner, Child and Elder Abuse	

Total Units 23-26

Reserve Peace Officer

Skills Certificate

Designed to give students basic support knowledge and abilities required to enter the law enforcement workforce as Reserve Peace Officers with or without obtaining an associate degree. The focus is on skills relative to the field of law enforcement. This skills certificate provides career technical skills; it is not equivalent to an associate degree.

Required Courses

ADMJ 0115	POST Modular III Training	7
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ADMJ 0120	POST Modular II Training	9
Total Units		16

Courses

Understanding course descriptions (p. 268)

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, motor 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 0060. Defensive Tactics for Law Enforcement*Unit: 1*

Hours: 36 (18 lecture, 18 laboratory)

Skills and techniques to address combative subjects both armed and unarmed; includes take downs, control holds, escapes, handcuffing, and weapon retention or removal. (not transferable)

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*

Prerequisite: Completion of any of the following: ADMJ 61A; 61C; 112; 115; 120; Basic Police Academy Course certified by California P.O.S.T. 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*

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*

Prerequisite: Successful completion of ADMJ 61A, 61B and 61C; or completion of ADMJ 61B and a California Commission on Peace Officer Standards and Training (POST) certified Police Academy

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 0061E. Firearms Instructor POST*Units: 2.5*

Prerequisite: Successful completion of a California Commission on Peace Officer Standards and Training (POST) certified Police Academy and possess a POST basic certificate

Hours: 80 (36 lecture, 44 laboratory)

Knowledge and skills to train police officers 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. Safety fee required. (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 recommended

Hours: 54 lecture

A 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

Prerequisite: 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*Units: 3*

Hours: 54 lecture

An in-depth study of penal and other codes which have an application to law enforcement. 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. Writing for Criminal Justice*Units: 3*

Hours: 54 lecture

Techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner in the various types of criminal justice system reports; letters, memoranda, directives, and administrative reports; emphasis on criminal justice terminology, use of English, and organization of information. Practical experience in note taking and report writing; presentation of testimony in court. (CSU)

ADMJ 0074. Computer Use in Criminal Justice*Units: 3*

Hours: 72 (54 lecture, 18 laboratory)

An introduction to system strategies and computer techniques used by law enforcement agencies. Computer procedures, terminology, and program applications that produce crime support data. Database applications found in law enforcement identification, CAD (Computer Assisted Dispatch) systems, statistics, investigations and records management systems. (CSU)

ADMJ 0075. Values and Ethics in Criminal Justice*Units: 3*

Hours: 54 lecture

Stresses the importance of values and ethics and appropriate moral judgments necessary in the administration of justice field. 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 0088. Computer Forensics Fundamentals*Units: 3*

Also known as CIS 88

Advisory: Completion of ADMJ 54 and CIS 147 with grades of "C" or better

Hours: 54 lecture

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. (CSU)

ADMJ 0089. Fraud Examination*Units: 3*

Advisory: Completion of ADMJ 54

Hours: 54 lecture

Covers principles and methodology of fraud detection and deterrence. Includes topics such as skimming, cash larceny, check tampering, register disbursement schemes, billing schemes, payroll and expense reimbursement schemes, non-cash misappropriations, corruption, accounting principles and fraud, fraudulent financial statements, and interviewing witnesses. (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. 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. P.C. 832: Arrest and Control*Units: 2*

Hours: 44 (36 lecture, 8 laboratory)

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 Commission on Peace Officer Standards and Training (POST). No longer meets modular Police Academy requirements. (not transferable)

ADMJ 0112. P.C. 832: Firearms*Units: 0.5*

Advisory: Completion of ADMJ 110 with grade of "C" or better

Hours: 24 (8 lecture, 16 laboratory)

Covers 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. (pass/no pass grading) (not transferable)

ADMJ 0115. POST Modular III Training*Units: 7*

Advisory: Completion of ADMJ 61A, ADMJ 73, and ENGL A with grades of "C" or better

Hours: 167 (107 lecture, 60 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 Modular II Training*Units: 9*

Advisory: Completion of ADMJ 61C, ADMJ 73, and ENGL A with grades of "C" or better

Hours: 223 (138 lecture, 85 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: 2*

Hours: 40 lecture

Covers career pathways in the 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. (not transferable)

ADMJ 0200. Family Violence: Spousal/Partner, Child and Elder Abuse*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)

ADMJ 0610. Special Weapons and Tactics - Advanced*Units: 0.5*

Prerequisite: Completion of POST Basic Academy and employment as a Peace Officer assigned to a Special Weapons and Tactics team

Hours: 24 (5 lecture, 19 laboratory)

Reality based training focusing on team challenges designed to test a SWAT team's methods and capabilities. Emphasis on team movement, hostage rescues, advanced firearms usage, physical endurance, and team problem exercises. May be repeated for credit to meet legally mandated requirements. (pass/no pass grading) (not degree applicable)

ADMJ 0630. Professional Training for Criminal Justice Personnel*Units: 0.5-3*

Prerequisite: Appropriate federal and/or state certification (POST/STC) entry standards

Hours: 54 laboratory per unit

Satisfies required standards for law enforcement personnel in areas of knowledge, techniques and perishable skills. Emphasis on laws of arrest; search and seizure; first aid and CPR; firearms; defensive tactics; illegal drugs, officers safety; civil liability; ethics; communication skills; interview and interrogations; investigations; crime scene processing; and report writing. May be repeated for credit to meet legally mandated education/training requirements. (pass/no pass grading) (not degree applicable)

ADMJ 0631. Spanish for Law Enforcement*Units: 0.5*

Prerequisite: Completion of PC 832, Academy Module III or POST Basic Academy

Hours: 9 lecture

Functional Spanish course designed for Law Enforcement personnel. Students will learn the basic commands to complete a car stop, handcuffing and the Miranda advisement. (pass/no pass grading) (not degree applicable)

ADMJ 0632. Crime Scene Investigations for the Patrol Officer*Units: 0.5*

Prerequisite: Completion of POST Basic Academy

Hours: 16 lecture

Fine tune the skills obtained in the Basic Academy regarding crime scene investigations for the patrol officer. Topics include fingerprinting, chain of evidence, videographing and the recognition of evidence and the importance of recording placement. (pass/no pass grading) (not degree applicable)

ADMJ 0633. Media Relations for Law Enforcement*Units: 0.5*

Hours: 9 lecture

Designed to prepare the line officer to work with the media and give a press release. (pass/no pass grading) (not degree applicable)

ADMJ 0634. Report Writing Review for Law Enforcement*Units: 0.5*

Prerequisite: Completion of PC 832 (ADMJ 110), Academy Module III (ADMJ 115), or POST Basic Academy

Hours: 9 lecture

Course designed for law enforcement personnel who need a refresher report writing course. (pass/no pass grading) (not degree applicable)

ADMJ 0635. Interview and Interrogation for Law Enforcement*Units: 0.5*

Prerequisite: Completion of POST Basic Academy

Hours: 9 lecture

Designed to provide officers with the knowledge to recognize distinct differences between interviews and interrogations. Legal issues and how to obtain truth from suspects, witnesses and victims will also be covered. (pass/no pass grading) (not degree applicable)

ADMJ 0636. Basic Traffic Collision Investigation*Unit: 1*

Prerequisite: Completion of POST Basic Academy

Hours: 24 (18 lecture, 6 laboratory)

Designed to provide officer with basic traffic collision investigation, including knowledge and skills necessary to conduct traffic collisions investigations to develop reasonable cause for establishing fault pursuant to California Vehicle Code section 40600. (pass/no pass grading) (not degree applicable)

ADMJ 0637. Drug Abuse Recognition*Unit: 1*

Prerequisite: Completion of POST Basic Academy

Hours: 24 lecture

Provides officers with the knowledge and skills to recognize signs and symptoms of drug influence, the DAR 7-step system, drug trends, how drugs affect the central nervous system, drug laws, report preparation and expert court testimony. (pass/no pass grading) (not degree applicable)

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.

Agriculture Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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 Macfarlane**Professor, Agriculture**

B.S., California State University, Chico

M.S., University of California, Davis

Liaison Counselors

Marcia Braga, Florence Charlie

Agriculture Advisory Committee

- Cindy Fake, UCCE, Placer County
- Laura Goss, Agriculture Teacher, East Nicolaus High School
- John Inglett, Manager, Wester Tree Nursery, Oroville
- Roger Ingram, UCCE, Placer County
- Dan Kemp, Agriculture Teacher, Bear River High School, Grass Valley
- Dan Macon, Owner, Flying Mule Farms, Auburn
- John Nitta, Owner, High Ranch Nursery, Loomis
- Mike Trueblood, Agriculture Teacher, Lincoln High School
- Christine Turner, Retired Agriculture Commissioner, Placer County
- Josh Turner, Agriculture Commissioner, Placer County
- Barbara Vineyard, Former Sierra College Board Member, Rancher, Lincoln

Degrees/Certificates

Associate Degree

- Sustainable Agriculture (p. 36)

Certificate of Achievement

- Sustainable Agriculture (p. 36)

Skills Certificate

- Sustainable Agriculture Business (p. 36)

Sustainable Agriculture

AS Degree and/or 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 degree/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. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- or Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

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	

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

AGRI 0196	Introduction to Sustainable Agriculture	3
AGRI 0212	Direct Farm Marketing	2
AGRI 0215	Introduction to Agricultural Business and Economics	3
BUS 0140	Small Business Management	3
Total Units		11

Courses

Understanding course descriptions (p. 268)

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. 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

Formerly known as HORT 2

Also known as BIOL 21

Advisory: Eligibility for ENGL 1A

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 0164. Sustainable Tree Care*Units: 3*

Formerly known as HORT 40

Hours: 90 (36 lecture, 54 laboratory)

Sustainable horticultural principles and practices for management and care of trees in urban and landscape settings. Includes tree biology and culture, proper tree selection, maintenance, planting, staking, pruning techniques, tree hazard assessment, and risk management. Current issues in urban forestry and trees in the urban environment will 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)

AGRI 0198. Food, Society and the Environment*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

Hours: 108 (54 lecture, 54 laboratory)

An overview of the principles of animal science and the interrelationships of domestic animals and mankind. Introduces various disciplines, including cell function, genetics, anatomy and physiology, reproduction, nutrition, animal health, animal products and animal behavior. (CSU, UC)

AGRI 0203. Animal Feeds and Nutrition*Units: 4*

Formerly known as AGRI 12

Advisory: Eligibility for ENGL 1A

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 0215. Introduction to Agricultural Business and Economics*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An overview of the role agriculture business plays in United States and world economies. Production and supply, marketing and demand, resource allocation, commodity pricing under perfect and imperfect competition are some of the topics 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 1A

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. (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.

Anthropology Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 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

Jennifer Molina-Stidger

Professor, Anthropology/Women and Gender Studies

B.A., University of California, Davis

M.A., University of New Mexico

Liaison Counselors

Marcia Braga, Reyes Ortega

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern
- or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

ANTH 0001	Physical Anthropology	3
ANTH 0002	Cultural Anthropology	3

ANTH 0005	Introduction to Archaeology	3
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Select 3-4 units from the following:

ANTH 0001L	Physical Anthropology Laboratory	3-4
ANTH 0006	Introduction to Linguistic Anthropology	
MATH 0013	Elementary Statistics	
or SOC 0015	Introduction to Statistics in Sociology	

Select 3-4 units from the following or any unused courses from the preceding area:

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:

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 0012	Anthropology of Games and Play	
ANTH 0014	Globalization Studies	
ANTH 0027	Anthropology of Sex, Gender and Sexuality	

Total Units **18-21**

Courses

Understanding course descriptions (p. 268)

ANTH 0001. Physical Anthropology

Units: 3

Hours: 54 lecture

Broad introduction to the science of physical anthropology. Topics include: the field of anthropology, the scientific method, evolutionary theory, genetics and inheritance, human variation, biology and behavior of living primates, and fossil evidence of human evolution. (CSU, UC)

ANTH 0001L. Physical 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. (C-ID ANTH 115L) (CSU, UC)

ANTH 0002. Cultural Anthropology

Units: 3

Hours: 54 lecture

Introduction to anthropological approaches in the study of human culture and diversity. Examines continuity and diversity in peoples' lifestyles, social institutions, and cultural practices in a variety of global societies. Cultural phenomena studied include language, power, kinship, gender, sexuality, ethnicity, ecology, economics, politics, religion and ritual. Explores cultural change. Addresses the contemporary relevance of cultural anthropology. (C-ID ANTH 120) (CSU, UC)

ANTH 0004. Native Peoples of North America*Units: 3*

Hours: 54 lecture

Anthropological survey of the peoples and cultures of North America. Emphasizes native ecological adaptations, languages, social organizations, religion, mythologies and world view, and artistic representations. Critical examination of the impact of tribal nations on each other as well as the interactions with other groups of people. Examines the roots of present-day conditions of Native communities and the 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 1A with grade of "C" or better

Hours: 54 lecture

Exploration of the role of language in social interaction and world view. Examines minority languages, dialects, bilingualism, literacy, and social influences on language change. Introduction and application of analytical techniques of linguistics and demonstration of their relevance to language in sociocultural issues. (C-ID ANTH 130) (CSU, UC)

ANTH 0007. Native Peoples of California*Units: 3*

Hours: 54 lecture

Study of the many cultures of the native inhabitants of California from the prehistoric period to the present time. Introduction to the diversity and complexity of aboriginal California. Includes environmental adaptation, material culture, social structure, ideology and response to change. Explores the impact of interactions with other groups of people as well as the contributions of Native 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. Cross-cultural survey and analysis of the forms and functions of myths, rituals, altered states of consciousness, spirit possession, messianic and cargo cults, witchcraft, and curing. Investigation of the relationship between medicine, science, myth, and supernatural belief systems in Western and non-Western societies. (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 pathology and trauma. (CSU, UC)

ANTH 0012. Anthropology of Games and Play*Units: 3*

Hours: 54 lecture

Study the role of play, the experience of fun and the influence of games in our lives. Develops methodological and conceptual tools used in the academic and/or commercial analysis of games and their development. Use knowledge and skills gained to design and implement our own games. (CSU)

ANTH 0014. Globalization Studies*Units: 3*

Hours: 54 lecture

Exploration of globalization and its effects. Addresses issues such as the historical, political, economic, cultural and environmental impacts of globalization. Development of tools for evaluating globalization in general as well as its local manifestations. (CSU, UC)

ANTH 0027. Anthropology of Sex, Gender and Sexuality*Units: 3*

Hours: 54 lecture

A cross-cultural comparison of gender roles and sexuality viewed from biological, evolutionary and socio-cultural perspectives. Addresses contemporary, traditional and prehistoric societies. Explores the relationship between language and gender ideologies and practices in all societies. (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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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

Thomas Fillebrown

Professor, Applied Art and Design

B.A., Humboldt State University

M.A., Montana State University

Rebecca Gregg

Professor, Photography/Applied Art and Design

B.S., University of Texas, Austin

M.S., California State University, Los Angeles

Natalie Rishe

Professor, Applied Art and Design

B.F.A., University of Nevada, Reno

M.F.A., University of California, Davis

Randy Snook

Professor, Photography/Applied Art and Design

B.A., California State University, Sacramento

M.F.A., Lesley University Art Institute of Boston

Liaison Counselors

Nancy Martinis, Rebecca Ortega

Degrees/Certificates

Associate Degrees

- Applied Art and Design—Graphic Design Concentration (p. 40)
- Applied Art and Design—Illustration Concentration (p. 41)
- Applied Art and Design—Multimedia Concentration (p. 41)

Certificates of Achievement

- Applied Art and Design—Graphic Design Concentration (p. 42)
- Applied Art and Design—Illustration Concentration (p. 42)
- Applied Art and Design—Multimedia Concentration (p. 42)

Skills Certificates

- Digital Illustration (p. 43)
- Graphic Design (p. 43)
- Video Production and Editing (p. 43)
- Visual Arts and Media (p. 43)
- Web Design (p. 43)

Applied Art and Design—Graphic Design Concentration AA or AS Degree

Successful completion of the curriculum in Graphic Design qualifies students for entry level positions in graphic design, Web design, desktop publishing and packaging design. This option also prepares students for transfer to a four-year college program in Graphic 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 12 units from the following:

12

AAD 0012	Visual Communication (also COMM 0012)
AAD 0070	Introduction to Digital Design
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)
AAD 0044	Sketching for Design
or ART 0004A	Drawing I
ART 0002	Two-Dimensional Design Foundations
or ART 0006C	Color Theory

Select 9 units from the following:

9

AAD 0052	Publication Design I
AAD 0053	Publication Design II
AAD 0054	Typography
AAD 0060	Graphic Design: Principles and Process
AAD 0061	Graphic Design II: Digital Design and Production
AAD 0062	Graphic Computer Illustration

Select 3-4 units from the following, or unused courses from preceding areas:

3-4

AAD 0020	Portfolio Development and Presentation
AAD 0028	Independent Study
AAD 0030	Photographing Works of Art (also PHOT 0030)
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)
AAD 0085	Introduction to Web Design
AAD 0086	Intermediate Web Design
AAD 0090	Interactivity and Animation for the Web
AAD 0095	Internship in Applied Art and Design
PHOT 0060A	Elementary Photography
or PHOT 0080	Color Photography

Total Units

24-25

Applied Art and Design—Illustration Concentration

AA or AS Degree

Successful completion of the curriculum in Illustration qualifies students for entry level positions as digital illustrators for use in graphic design, advertising and book and card illustration. This option also prepares students for transfer to a four-year college program in Illustration. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 12 units from the following: 12

AAD 0012	Visual Communication (also COMM 0012)
AAD 0070	Introduction to Digital Design
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)
AAD 0044 or ART 0004A	Sketching for Design Drawing I
ART 0002 or ART 0006C	Two-Dimensional Design Foundations Color Theory

Select 9 units from the following: 9

AAD 0055	Illustration (also ART 0055)
AAD 0062	Graphic Computer Illustration
AAD 0071	Introduction to Digital Painting (also ART 0071)
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)
AAD 0076	Advanced Projects in Digital Imaging (also PHOT 0076)
AAD 0083	Introduction to Three-Dimensional Modeling
ART 0004B or ART 0005A	Drawing II Figure Drawing I

Select 3 units from the following, or unused courses from preceding areas: 3

AAD 0020	Portfolio Development and Presentation
AAD 0028	Independent Study
AAD 0030	Photographing Works of Art (also PHOT 0030)
AAD 0060	Graphic Design: Principles and Process
AAD 0085	Introduction to Web Design
AAD 0095	Internship in Applied Art and Design
ART 0007A or ART 0008A	Oil Painting I Watercolor Painting I
PHOT 0060A or PHOT 0080	Elementary Photography Color Photography

PHOT 0078	Digital Photography
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Total Units 24

Applied Art and Design—Multimedia Concentration

AA or AS Degree

Successful completion of the curriculum in Multimedia 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 Multimedia. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 12 units from the following: 12

AAD 0012	Visual Communication (also COMM 0012)
AAD 0070	Introduction to Digital Design
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)
AAD 0044 or ART 0004A	Sketching for Design Drawing I
ART 0002 or ART 0006C	Two-Dimensional Design Foundations Color Theory

Select 9-11 units from the following: 9-11

AAD 0079	Introduction to Video Production (also COMM 0031A)
AAD 0080	Introduction to Video Editing
AAD 0083	Introduction to Three-Dimensional Modeling
AAD 0085	Introduction to Web Design
AAD 0086	Intermediate Web Design
AAD 0090	Interactivity and Animation for the Web

Select 3 units from the following, or unused courses from preceding areas: 3

AAD 0028	Independent Study
AAD 0054	Typography
AAD 0060	Graphic Design: Principles and Process
AAD 0062	Graphic Computer Illustration
AAD 0071	Introduction to Digital Painting (also ART 0071)
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)
AAD 0076	Advanced Projects in Digital Imaging (also PHOT 0076)
AAD 0095	Internship in Applied Art and Design
ART 0005A	Figure Drawing I
BUS 0122	Marketing in the Digital Age

CSCI 0062	Web Programming I	
CSCI 0063	Web Programming II	
Total Units		24-26

Applied Art and Design—Graphic Design Concentration Certificate of Achievement

The certificate in Graphic Design qualifies students for entry level positions in graphic design, web design, desktop publishing and packaging design. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Select 12 units from the following: 12

AAD 0012	Visual Communication (also COMM 0012)	
AAD 0070	Introduction to Digital Design	
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
ART 0002	Two-Dimensional Design Foundations	
or ART 0006C	Color Theory	

Select 12 units from the following: 12

AAD 0052	Publication Design I	
AAD 0053	Publication Design II	
AAD 0054	Typography	
AAD 0060	Graphic Design: Principles and Process	
AAD 0061	Graphic Design II: Digital Design and Production	
AAD 0062	Graphic Computer Illustration	

Select 8-10 units from the following, or unused courses from preceding areas: 8-10

AAD 0020	Portfolio Development and Presentation	
AAD 0028	Independent Study	
AAD 0030	Photographing Works of Art (also PHOT 0030)	
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)	
AAD 0085	Introduction to Web Design	
AAD 0090	Interactivity and Animation for the Web	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
PHOT 0060A	Elementary Photography	
or PHOT 0080	Color Photography	

Total Units 32-34

Applied Art and Design—Illustration Concentration Certificate of Achievement

The certificate in Illustration qualifies students for entry level positions as digital illustrators for use in graphic design, advertising and book and card illustration. The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

Select 12 units from the following: 12

AAD 0012	Visual Communication (also COMM 0012)	
AAD 0070	Introduction to Digital Design	

AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
ART 0002	Two-Dimensional Design Foundations	
or ART 0006C	Color Theory	

Select 12 units from the following: 12

AAD 0055	Illustration (also ART 0055)	
AAD 0062	Graphic Computer Illustration	
AAD 0071	Introduction to Digital Painting (also ART 0071)	
AAD 0076	Advanced Projects in Digital Imaging (also PHOT 0076)	
AAD 0083	Introduction to Three-Dimensional Modeling	
ART 0004B	Drawing II	
or ART 0005A	Figure Drawing I	

Select 8-9 units from the following, or unused courses from preceding areas: 8-9

AAD 0020	Portfolio Development and Presentation	
AAD 0028	Independent Study	
AAD 0030	Photographing Works of Art (also PHOT 0030)	
AAD 0060	Graphic Design: Principles and Process	
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)	
AAD 0085	Introduction to Web Design	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
ART 0007A	Oil Painting I	
or ART 0008A	Watercolor Painting I	
PHOT 0060A	Elementary Photography	
or PHOT 0080	Color Photography	
PHOT 0078	Digital Photography	

Total Units 32-33

Applied Art and Design—Multimedia Concentration Certificate of Achievement

The certificate in Multimedia 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

Select 12 units from the following: 12

AAD 0012	Visual Communication (also COMM 0012)	
AAD 0070	Introduction to Digital Design	
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	
AAD 0044	Sketching for Design	
or ART 0004A	Drawing I	
ART 0002	Two-Dimensional Design Foundations	
or ART 0006C	Color Theory	

Select 12-14 units from the following: 12-14

AAD 0079	Introduction to Video Production (also COMM 0031A)	
AAD 0080	Introduction to Video Editing	
AAD 0083	Introduction to Three-Dimensional Modeling	
AAD 0085	Introduction to Web Design	
AAD 0086	Intermediate Web Design	
AAD 0090	Interactivity and Animation for the Web	

Select 8-9 units from the following, or unused courses from preceding areas: 8-9

AAD 0028	Independent Study	
AAD 0054	Typography	
AAD 0060	Graphic Design: Principles and Process	
AAD 0062	Graphic Computer Illustration	
AAD 0071	Introduction to Digital Painting (also ART 0071)	
AAD 0073	Digital Art Studio: Concepts and Practices (also ART 0073)	
AAD 0076	Advanced Projects in Digital Imaging (also PHOT 0076)	
AAD 0095	Internship in Applied Art and Design (up to 3 units)	
ART 0005A	Figure Drawing I	
BUS 0122	Marketing in the Digital Age	
CSCI 0062	Web Programming I	
CSCI 0063	Web Programming II	

Total Units 32-35

Digital Illustration

Skills Certificate

Designed for students interested in becoming proficient in illustration. Valuable for those preparing for careers in illustration, 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

AAD 0044	Sketching for Design	3
or ART 0004A	Drawing I	
AAD 0055	Illustration (also ART 0055)	3
AAD 0062	Graphic Computer Illustration	3
AAD 0071	Introduction to Digital Painting (also ART 0071)	3

Total Units 12

Graphic Design

Skills Certificate

Designed for students interested in becoming proficient with design concepts, software and image manipulation related to creating print and publication design. Valuable for those preparing for a career as a graphic designer, or for those upgrading their skills. This is a specialty skills certificate designed to provide career technical skills for print design and publication software; it is not equivalent to an associate degree.

Required Courses

AAD 0052	Publication Design I	3
AAD 0060	Graphic Design: Principles and Process	3

AAD 0070	Introduction to Digital Design	3
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	3

Total Units 12

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

AAD 0044	Sketching for Design	3
or ART 0004A	Drawing I	
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	3
AAD 0079	Introduction to Video Production (also COMM 0031A)	3
AAD 0080	Introduction to Video Editing	4

Total Units 13

Visual Arts and Media

Skills Certificate

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

AAD 0012	Visual Communication (also COMM 0012)	3
AAD 0044	Sketching for Design	3
or ART 0004A	Drawing I	
AAD 0070	Introduction to Digital Design	3
PHOT 0060A	Elementary Photography	3

Total Units 12

Web Design

Skills Certificate

Intended for students interested in becoming proficient with software and technologies for creating webpage design. 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

AAD 0062	Graphic Computer Illustration	3
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	3
AAD 0085	Introduction to Web Design	3
AAD 0090	Interactivity and Animation for the Web	4

Total Units 13

Courses

Understanding course descriptions (p. 268)

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 0020. Portfolio Development and Presentation

Units: 3

Advisory: Completion of AAD 70, 75, or 85 with grade of "C" or better
Hours: 72 (36 lecture, 36 activity)

Function and use of the portfolio as a marketing device for artists and designers. Styles, materials, resources in portfolio design. Evaluation of professional goals and image building. Students create and present both a print and digital portfolio of their work as a final project. For advanced students. (CSU)

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 0030. Photographing Works of Art

Units: 0.5

Also known as PHOT 30

Hours: 13 (7 lecture, 6 laboratory)

Methods and procedures involved in reproducing works of art into digital files, prints, or slides for cataloging, portfolios, or publication. Covers equipment needed for both artificial and natural light situations, camera considerations, proper exposure, and presentation of copy work for both two-dimensional and three-dimensional art. Students must furnish digital or film camera, processing, storage and presentation materials. (CSU)

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 0050. Introduction to the Macintosh Computer

Units: 0.5

Hours: 13 (7 lecture, 6 activity)

Introduction to the Macintosh computer hardware and operating system. Basic skills including menu bar, opening and saving files, navigating, mouse and keyboard use. Memory, storage, and resolutions issues. Icons, terminology and common acronyms. Overview of peripherals and software used in art and design. (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. Critical application of basic computer operating principles. Emphasis on publication design and the use of type and layout as key elements in graphic communication. Covers importing text and graphics, arranging publication pages, and producing camera ready artwork for reproduction. (CSU)

AAD 0053. Publication Design II

Units: 3

Prerequisite: Completion of one of the following courses with grade of "C" or better: AAD 52, 54 or 62

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

Prerequisite: Completion of one of the following with grade of "C" or better: AAD 52, 53, 61, 62, or 75

Advisory: Completion of AAD 60 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, proper application of type in a variety of print publications and screen environments, hand drawn and computer generated typed forms. (CSU)

AAD 0055. Illustration

Units: 3

Also known as ART 55

Prerequisite: Completion of one of the following courses with grade of "C" or better: AAD 44, 60, 62, 75 or ART 4A

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: Principles and Process

Units: 3

Advisory: Completion of AAD 44, AAD 70, ART 4A, or ART 6A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Introductory course emphasizing concept development, fundamental principles of design and design solutions. Exploration of materials and techniques for visualizing and presenting ideas, analyzing and critiquing design and combining diverse elements in effective layouts from concept through final critique. (CSU)

AAD 0061. Graphic Design II: Digital Design and Production*Units: 3*

Prerequisite: Completion of one of the following with grade of "C" or better AAD 52, 62, or 75

Advisory: Completion of AAD 60

Hours: 90 (27 lecture, 63 activity)

Advanced problem solving skills in graphic design through projects and critique. Use of the computer to design and produce full color graphics and print materials, including industry standards and procedures for working with art directors, service bureaus, and printers in pre-press operations. (CSU)

AAD 0062. Graphic Computer Illustration*Units: 3*

Advisory: Completion of AAD 60, AAD 70, or ART 4A with a 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 World Wide 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 camera ready artwork for reproduction using appropriate file formats and standards for integration into other electronic media. (CSU, UC)

AAD 0066. Business Practices for the Applied Arts*Unit: 1*

Hours: 18 lecture

Fundamental business practices for graphic designers, multimedia and illustration artists, photographers and other creative service providers. Initial client contact to final billing process. Basic elements of running a small studio including overview of license, taxes and bookkeeping. Production of invoices, purchase orders, job sheets and organizational forms. Discussion of business ethics in the arts, copyright protection, and working relationships with clients and suppliers. (CSU)

AAD 0070. Introduction to Digital Design*Units: 3*

Hours: 72 (36 lecture, 36 activity)

Introduction to fundamental concepts and techniques of art and design on the computer. Includes basic computer skills, digital image capture, image manipulation, drawing, page layout, and preparation of images for print, web or multimedia. 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: 108 (27 lecture, 81 laboratory)

Introduction to drawing and painting on the computer. Exploration of tools, color palettes, brush options, paper textures, effects and manipulation of layers and masks in a digital painting program. Includes integration of off-computer drawing and painting processes and techniques with digital image development. Projects are created in preparation for printing on artist's quality papers, or for use in other digital applications and the World Wide Web. (CSU)

AAD 0073. Digital Art Studio: Concepts and Practices*Units: 3*

Also known as ART 73

Prerequisite: Completion of ART 4A or AAD 44 with grade of "C" or better

Advisory: Completion of AAD 70 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, video, mixed media, digital imaging, installation, and new genres. Topics include integration of traditional design, color, and compositional principles with contemporary digital tools in an art studio context. (CSU, UC)

AAD 0075. Introduction to Digital Imaging*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 manipulation of photographs 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 Digital Imaging*Units: 3*

Also known as PHOT 76

Advisory: Completion of PHOT 75/AAD 75 and PHOT 60A with grades of "C" or better recommended

Hours: 72 (36 lecture, 36 activity)

Advanced digital project development. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Use of various output methods appropriate for specific projects. Evaluations and critiques of completed projects. (CSU)

AAD 0079. Introduction to Video Production*Units: 3*

Also known as COMM 31A

Hours: 90 (36 lecture, 54 laboratory)

Introduction to principles, techniques and the terminology of video production and post-production. Guided classroom exercises and projects, including pre-production planning, video and audio recording techniques, remote (field) system set-ups and studio set-ups, lighting for single camera video shoots, and basic video editing and output. (CSU)

AAD 0080. Introduction to Video Editing*Units: 4*

Advisory: Completion of AAD 79/COMM 31A with grade of "C" or better

Hours: 108 (36 lecture, 72 activity)

An introduction to video editing using non-linear systems. Topics include basic video and audio capture, use of still images and graphics in video, addition of transitions, effects and filters, sequencing and pacing, sound manipulation, and the creation of original titles and audio tracks. Export and compression are covered for various outputs including Web, DVD, tape and archive. (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)

Three-dimensional modeling on the computer including construction of three-dimensional forms, use of surface textures, application of lighting effects, and animation of completed constructions. Students will create original projects including environments, objects, buttons, three-dimensional texts and animations for use in fine art, graphic design, multimedia and the World Wide Web. (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 HTML; cascading style sheets; design issues specific to web delivery; the creation and optimization of graphics and images for the web, including rollovers, banners and buttons; 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. Current topics in website creation covered as they relate to visual design and user interfaces such as strategies for combining layout, graphics, text, typography, and interactivity in fully functioning websites. Special topics include coverage of industry standards and current technologies. (CSU)

AAD 0090. Interactivity and Animation for the Web*Units: 4*

Prerequisite: Completion of AAD 70 with grade of "C" or better
Hours: 108 (54 lecture, 54 laboratory)

Introduction to interactive, multimedia authoring and animation for the Web. Assembly of media elements including digital images, sound, and video into cross-platform projects. Use of multimedia tools, scripts, and animation. Stylistic concerns, content development, and copyright issues studied. Students create original, interactive multimedia projects appropriate for CD and World Wide Web presentation. (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. 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)

- Generate design solutions integrating concept, content and form, and produce a workflow consisting of the many phases of the design process.
- Critique and communicate elements and principles of design as applied to contemporary and historical design.
- Create designs for various delivery methods such as print, web and multimedia, utilizing the appropriate formats required.

- Prove a command of industry standard software applications in preparation for the job market in the fields of design, illustration and/or multimedia.
- Develop a portfolio of work that illustrates the styles, medium and subject area interest of the student.
- Demonstrate knowledge of the key principles of copyright, fair use, public domain and the use of appropriated images and content in design projects.

Art Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 intercultural 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 Chapman**Assistant Professor, Art/Art History**

B.A., University of California, Davis
M.A., University of California, Davis

Sandra Escobar**Assistant Professor, Art**

B.A., California State University, Northridge
M.A., California State University, Northridge
M.F.A., California State University, Chico

John Keating**Professor, Art/Art History/Humanities**

B.A., Gonzaga University
M.F.A., San Francisco Art Institute

Patrick Marasso**Assistant Professor, Art**

B.F.A., California State University, Long Beach

M.A., California State University, Sacramento

Casey O'Connor

Professor, Art

B.F.A., San Francisco Art Institute
M.F.A., Alfred University

Samuel Tubiolo

Professor, Art

B.F.A., Rochester Institute of Technology
M.A., University of New Mexico
M.F.A., University of New Mexico

Liaison Counselors

Marcia Braga, Katie Juras

Degrees/Certificates

Associate Degree for Transfer

- Studio Arts for Transfer (p. 47)

Associate Degree

- Studio Art (p. 47)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

ARHI 0120	History of Western Art II: Renaissance through Romanticism	3
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ARHI 0130	History 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	History 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	Creative Design in Metal	
ART 0032	Introduction to Fiber Arts	
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	Elementary 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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

ARHI 0120	History of Western Art II: Renaissance through Romanticism	3
ARHI 0130	History 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	History 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	Creative Design in Metal	
ART 0024	Advanced Art Metal Design	
ART 0028	Independent Study	
ART 0032	Introduction to Fiber Arts	
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 Development and Presentation
or AAD 0071	Introduction to Digital Painting
or AAD 0090	Interactivity and Animation for the Web
or PHOT 0060B	Intermediate Photography

Total Units

27

Courses

Understanding course descriptions (p. 268)

ART 0002. Two-Dimensional Design Foundations

Units: 3

Formerly known as ART 6A

Hours: 90 (36 lecture, 54 laboratory)

Introduction to the concepts, applications, and historical 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

Advisory: Eligibility for ENGL 1A

Hours: 90 (36 lecture, 54 laboratory)

Introduction to 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. Instruction in the use of black and white drawing media including pencil, charcoal, and ink. References to various historical and cultural styles 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 and cultural styles and techniques. (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)

Drawing the human form using live models. Emphasis on the concepts of form in space, proportions, anatomical construction, dimensional composition. Development of self-expression and creativity through artwork employing the figure as the primary subject matter. Study of figurative art in historical and cultural contexts. Use of a wide variety of drawing materials to achieve various aesthetic effects. (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)

Drawing the human form using live models. Continued concepts of form in space, proportions, anatomical construction, and dimensional composition. Development of self-expression and creativity through art work employing the figure as the primary subject matter. Study of figurative art in historical and cultural contexts. Use of a wide variety of drawing materials, including color media to achieve various aesthetic effects. Emphasis on completed compositions. (CSU, UC)

ART 0006C. Color Theory*Units: 3*

Advisory: Completion of ART 6A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Basic principles and properties of color. Theoretical study and direct studio projects of such colorists as Josef Albers and Johannes Itten. 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 of oil painting. Painting techniques explored in historical/cultural contexts, as well as student's individual style and interest. Composition, colors, and sources of inspiration studied through class assignments. Students are encouraged to develop self-expression and creativity. (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 processes, with emphasis on development of personal expression and style. (CSU, UC)

ART 0008A. Watercolor Painting I*Units: 3*

Prerequisite: Completion of ART 4A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Introduction to the watercolor techniques as a transparent painting medium. Includes exploration of traditional and nontraditional watercolor methods, composition, color use, development of sources of personal inspiration, and historical traditions studied through lecture, reading and direct class painting assignments. (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)

Further in-depth study of techniques and processes of transparent watercolor. Emphasis on practice and improvement in painting techniques and development of personal expression and style. (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)

Introduction to techniques of acrylic painting. Painting explored in historical context as well as student's individual style and interest. Composition, color use, and sources of inspiration studied through class assignments. (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 techniques and processes 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, teaching students to connect 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)

Further exploration of sculpture philosophy and materials with a greater 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 will be explored through the development of three-dimensional projects. (CSU, UC)

ART 0018A. Ceramics I*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 90 (36 lecture, 54 laboratory)

Introduction to the ideas, techniques, history and tradition of the art and craft of ceramics. Ceramics explored through handbuilding, wheel throwing, decorating and glazing of ceramic works. (CSU, UC)

ART 0018B. Ceramics II*Units: 3*

Prerequisite: Completion of ART 18A with grade of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Course builds on techniques learned in ART 18A. Potter's wheel, handbuilding, slip casting. Glaze technology 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. Students are introduced to a variety of construction materials beginning with ceramics. More advanced students may explore other materials such as plaster, bronze, and stone. (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. Creative Design in Metal*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 Art Metal Design*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 0032. Introduction to Fiber Arts*Units: 3*

Formerly known as ART 302

Hours: 90 (36 lecture, 54 laboratory)

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. Overview of historical background and contemporary Fiber Art. (C-ID ARTS 282) (CSU, UC)

ART 0033. Art Metal Casting*Units: 3*

Hours: 90 (36 lecture, 54 laboratory)

Exploration of cast metal for sculpture, including functional and nonfunctional art forms. Emphasis on history, design, techniques, vocabulary and safety. Includes lost wax, rigid investments, sand casting and other traditional and nontraditional art foundry methods, for both bronze and aluminum. (CSU)

ART 0034. Collage and Assemblage*Units: 3*

Formerly known as ART 303

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 wood cut, lino cut, collagraph, and monotype. (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, and monotype. (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 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

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 one of the following courses with grade of "C" or better: AAD 44, 60, 62, 75 or ART 4A

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: 108 (27 lecture, 81 laboratory)

Introduction to drawing and painting on the computer. Exploration of tools, color palettes, brush options, paper textures, effects and manipulation of layers and masks in a digital painting program. Includes integration of off-computer drawing and painting processes and techniques with digital image development. Projects are created in preparation for printing on artist's quality papers, or for use in other digital applications and the World Wide Web. (CSU)

ART 0073. Digital Art Studio: Concepts and Practices*Units: 3*

Also known as AAD 73

Prerequisite: Completion of ART 4A or AAD 44 with grade of "C" or better

Advisory: Completion of AAD 70 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, video, mixed media, digital imaging, installation, and new genres. Topics include 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. 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Chapman**Assistant Professor, Art/Art History**

B.A., University of California, Davis

M.A., University of California, Davis

John Keating**Professor, Art/Art History/Humanities**

B.A., Gonzaga University

M.F.A., San Francisco Art Institute

Liaison Counselors

Marcia Braga, Katie Juras

Degrees/Certificates

Associate Degree for Transfer

- Art History for Transfer (p. 51)

Associate Degree

- Art History (p. 52)

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

- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

ARHI 0110	History of Western Art I: Prehistory through the Middle Ages	3
ARHI 0120	History of Western Art II: Renaissance through Romanticism	3
ARHI 0130	History 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 and Aesthetics of Photography	
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	Elementary Photography	
Total Units		21

Art History

AA Degree

The AA program in Art History provides students with an understanding of the history of visual arts and architecture. Successful completion of the curriculum in Art History will prepare students for transfer to four-year colleges or universities. The program curriculum introduces students to the different art historical methodologies that shape the study of arts 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. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

ARHI 0110	History of Western Art I: Prehistory through the Middle Ages	3
ARHI 0120	History of Western Art II: Renaissance through Romanticism	3
ARHI 0130	History of Western Art III: Modern through Contemporary	3
ART 0004A	Drawing I	3
Select 6 units from the following:		6
ARHI 0132	History of Women in Art	
ARHI 0134	History and Aesthetics of Photography	
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:		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	Elementary Photography	
Total Units		21

Courses

Understanding course descriptions (p. 268)

ARHI 0101. Art Appreciation

Units: 3

Formerly known as ART 10

Hours: 54 lecture

Introductory course for non-art majors providing a basic understanding of art. Course topics include interpretation, development of visual vocabulary, and an exploration of various media and techniques. (CSU, UC)

ARHI 0110. History of Western Art I: Prehistory through the Middle Ages

Units: 3

Formerly known as ART 1A

Hours: 54 lecture

Study of architecture, sculpture and painting of the Ancient Near East and Europe from Prehistory through Middle Ages. (C-ID ARTH 110) (CSU, UC)

ARHI 0120. History of Western Art II: Renaissance through Romanticism*Units: 3*

Formerly known as ART 1B

Hours: 54 lecture

Study of painting, architecture, sculpture and graphic arts of European cultures from the Renaissance through mid-nineteenth century. (combined with ARHI 130, C-ID ARTH 120) (CSU, UC)

ARHI 0130. History 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 practice. (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

Women in the arts in western civilization including their influence as artists and patrons as well as representations of women from ancient times to the present. (CSU, UC)

ARHI 0134. History and Aesthetics of Photography*Units: 3*

Formerly known as ART 11

Also known as PHOT 10

Hours: 54 lecture

Historical and thematic survey of photography as an art form and communication tool from its invention to the present. Explores various critical perspectives including aesthetic and design principles, influential themes, periods, and photographers. Investigates technical considerations, photography's role in the development of 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 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

Islamic art and architecture from Arabic, Persian, and Indian cultures. Formation of Islamic art, history, and philosophy. Works of art from Muslim countries and regions. Comparison with art from other major Asian religions such as Buddhism and Hinduism as well as European traditional art inspired by religion. (CSU, UC)

ARHI 0814. Art Appreciation: Identification of Various Periods of Art*Units: 0*

Formerly known as ART 814

Hours: 8 to 18 lecture as scheduled

Course designed for older adults. An overview of the development of various periods of art movements. Includes impact of culture, religion, and political atmosphere on art and the identification of major works of art and artists in each period. Each class section focuses on one period or genre, such as Italian Renaissance, French Impressionism, Dutch Baroque, Arts of Islam, Feminist Art, Chinese Painting, or Art of the City. May be repeated. (noncredit)

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

Sciences and Mathematics

Dean

Heather Roberts

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. The program is not designed to prepare students for Astronomy majors and does not presume extensive backgrounds in science and mathematics.

Faculty

David Dunn**Professor, Astronomy**

B.S., University of California, Davis
 M.S., University of Iowa
 Ph.D., University of Iowa

Dave Kenyon

Professor, Astronomy

B.S.E.E.T., DeVry Institute of Technology
 M.S.E.E., Stanford University

Barry Rice

Professor, Astronomy

B.S., Rensselaer Polytechnic Institute
 Ph.D., University of Arizona

Liaison Counselors

Terri Maddux, Paul Neal

Courses

Understanding course descriptions (p. 268)

ASTR 0002. Introduction to Planetary Systems

Units: 3

Advisory: Completion of ENGL 50

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 50

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 and almanacs. 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 50

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 50

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 50

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

Health, Physical Education, Recreation/Athletics

Dean

Lucas Moosman

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

Darci Brownell

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.S., National University

Mary Conway

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Scott Decker

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., University of California, Davis
M.A., United States Sports Academy

Edward Eaton

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., San Jose State University
M.A.T., San Jose State University

Heather Eubanks

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Lutheran University
M.A., Azusa Pacific University

John Fusano

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason Gantt

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California State University, Sacramento
M.S., California State University, Sacramento

Roz Goldenberg

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Northridge
M.A., Humboldt State University

Brandie Murrish

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben Noonan

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Jeff Tisdell

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., University of Nevada, Reno

Robert Willson

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Laney College
 B.A., Sonoma State University
 M.A., Saint Mary's College of California

Liaison Counselors

Brian Gosney, Tonya Times

Courses

Understanding course descriptions (p. 268)

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 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 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 (CCCCA) 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 CCAA 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 0160. Intercollegiate Tennis (M)*Units: 1-3*

Formerly known as PHED 163

Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced tennis skills, conditioning and previous competitive experience

Hours: 58 laboratory per unit

Intercollegiate men'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 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 Sand Volleyball (W)*Units: 1-3*

Prerequisite: Enrollment limitation: permission of instructor required; for students with advanced sand volleyball skills, conditioning and previous competitive experience

Hours: 58 laboratory per unit

Intercollegiate women's sand 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 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 and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, Rocklin Campus

Overview

The Automotive Technology Program is supported by the Central Valley New Car Dealership Association (CVNCDA), is a member of Professional Automotive Training Centers (PATC) and has a Memorandum of Understanding (MOU) with Nissan of North America. All full-time automotive instructors are Master ASE Certified or above. The Automotive Technology Program is Automotive Service Excellence (ASE) certified in the following areas: Engine Repair, Automatic Transmission/Transaxles, Manual Drivetrains and Axles, Suspension/Steering, Brakes, Electric/Electronic Systems, Heating/Air Conditioning and Engine Performance.

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.

Faculty

Stephen Smith

Professor, Automotive Technology

A.A., Cosumnes River College
B.A., California State University, Chico
M.A., California State University, Chico

Alexander Wong

Professor, Automotive Technology

A.A., San Francisco City College
B.S., San Jose State University
M.S., University of Cincinnati
Professional Engineer

Liaison Counselors

Elena Farrelly, Dale Quadros

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

Associate Degree

- Automotive Analysis (p. 59)

Certificates of Achievement

- Air Conditioning and Body Electrical (p. 60)
- Alignment and Brake (p. 60)
- Automatic Transmission (p. 60)
- Automotive Engine Machining (p. 60)
- Emission and Driveability Tune-Up (p. 61)
- Master Automotive Technician (p. 61)
- Powertrain (p. 61)

Skills Certificate

- Entry Level Automotive Service and Repair (p. 61)

Automotive Analysis

AA or AS Degree

Successful completion of the curriculum in Automotive Analysis qualifies students for entry-level positions in the various areas of automotive technology and provides them with an overview for selecting specific areas for further training and education. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0061	Vehicle and Engine Analyzing	4
AUTO 0064	Hydraulic and Brake Systems	4
AUTO 0068A	Basic Automatic Transmissions	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0079	Suspension and Wheel Alignment	4

AUTO 0150	Introduction to Automotive Technology Profession	0.5
Select 4 units from the following:		4
AUTO 0066A	Engine Reconditioning	
AUTO 0069	Automotive Air Conditioning and Heating	
AUTO 0075	Automotive Electronics	
AUTO 0080	Automotive Powertrains Manual Transmissions	
Total Units		25

Recommended Electives

AUTO 0095	Internship in Automotive Technology	0.5-4
BUS 0020	Introduction to Business	3
BUS 0100	Management Concepts and Applications	3

Certificates of Achievement

The Automotive Technology certificate program is designed to qualify students for specialized positions in automotive repair and related industries and to upgrade the skills of technicians already in the field. The program also includes the Master Automotive Technician Certificate, which certifies competence in all areas of conventional automotive repair and maintenance.

Certificate patterns consist of course concentration in specific areas, plus study in relevant areas such as Introductory Welding for Metalworking (WELD 0015). General education courses are not required. Specialized certificates require 18 to 36 units of course work, while the Master Automotive Technician Certificate requires 58.5 units. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

LICENSES:

- Automotive Emission Control
- Automotive Lighting Systems
- Automotive Brake Systems

The Automotive Technology program offers courses designed for mechanics who want to apply for a new license, or renew a license, in the areas of emission control, lighting and brake systems. See AUTO 0031 and AUTO 0064.

Air Conditioning and Body Electrical**Certificate of Achievement****Required Courses**

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0061	Vehicle and Engine Analyzing	4
AUTO 0069	Automotive Air Conditioning and Heating	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0075	Automotive Electronics	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5

Select 2 units from one or both of the following:		2
AUTO 0060	Skill and Speed Development	
AUTO 0095	Internship in Automotive Technology	

Total Units **19**

Alignment and Brake**Certificate of Achievement****Required Courses**

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0060	Skill and Speed Development	1
AUTO 0064	Hydraulic and Brake Systems	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0079	Suspension and Wheel Alignment	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5
WELD 0015	Introductory Welding for Metalworking	2

Select 3-4 units from the following: **3-4**

AUTO 0028	Independent Study (up to 2 units)	
AUTO 0095	Internship in Automotive Technology (up to 2 units)	
BUS 0140	Small Business Management	

Total Units **19-20**

Automatic Transmission**Certificate of Achievement****Required Courses**

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0060	Skill and Speed Development	1
AUTO 0068A	Basic Automatic Transmissions	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0080	Automotive Powertrains Manual Transmissions	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5
WELD 0015	Introductory Welding for Metalworking	2

Select 3-4 units from the following: **3-4**

AUTO 0028	Independent Study (up to 2 units)	
AUTO 0095	Internship in Automotive Technology (up to 2 units)	
BUS 0140	Small Business Management	

Total Units **19-20**

Automotive Engine Machining**Certificate of Achievement****Required Courses**

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0060	Skill and Speed Development	1
AUTO 0066A	Engine Reconditioning	4
AUTO 0066B	Engine Reconditioning	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5
WELD 0015	Introductory Welding for Metalworking	2

Select 6-7 units from the following: **6-7**

AUTO 0028	Independent Study (up to 2 units)	
AUTO 0095	Internship in Automotive Technology (up to 4 units)	
WELD 0040	Wire Feed Welding Processes - Career Path or WELD 0050 Gas Tungsten Arc Welding (TIG) - Career Path	

Total Units **18-19**

Emission and Driveability Tune-Up

Certificate of Achievement

Required Courses

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0060	Skill and Speed Development	1
or AUTO 0095	Internship in Automotive Technology	
AUTO 0061	Vehicle and Engine Analyzing	4
AUTO 0062A	Engine Fuel System Principles and Controls	4
AUTO 0062B	Computer Controlled Carburetion and Fuel Injection	4
AUTO 0063	Advanced Engine Performance Diagnosis	4
AUTO 0069	Automotive Air Conditioning and Heating	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0075	Automotive Electronics	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5

Select one of the following: 0-4.5

AUTO 0031	Automotive Emission Control Systems (OR)	
Completion of BAR Smog Check Inspection Training (Level 1) Certificate		

Select one of the following: 0-1.5

AUTO 0034	Advanced BAR Smog Check Inspection Training (Level 2) (OR)	
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Possession of California Smog Certificate License

Total Units 30-36

Master Automotive Technician

Certificate of Achievement

Required Courses

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0031	Automotive Emission Control Systems	4.5
AUTO 0061	Vehicle and Engine Analyzing	4
AUTO 0062A	Engine Fuel System Principles and Controls	4
AUTO 0063	Advanced Engine Performance Diagnosis	4
AUTO 0064	Hydraulic and Brake Systems	4
AUTO 0066A	Engine Reconditioning	4
AUTO 0068A	Basic Automatic Transmissions	4
AUTO 0069	Automotive Air Conditioning and Heating	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0079	Suspension and Wheel Alignment	4
AUTO 0080	Automotive Powertrains Manual Transmissions	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5
WELD 0015	Introductory Welding for Metalworking	2

Select 3 units from one or both of the following: 3

AUTO 0060	Skill and Speed Development	
AUTO 0095	Internship in Automotive Technology	

Select 8 units from the following: 8

AUTO 0062B	Computer Controlled Carburetion and Fuel Injection	
AUTO 0066B	Engine Reconditioning	

AUTO 0075 Automotive Electronics

Total Units 58.5

Powertrain

Certificate of Achievement

Required Courses

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0060	Skill and Speed Development	1
AUTO 0068A	Basic Automatic Transmissions	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0080	Automotive Powertrains Manual Transmissions	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5
WELD 0015	Introductory Welding for Metalworking	2

Select 3-4 units from the following: 3-4

AUTO 0028	Independent Study (up to 2 units)	
AUTO 0095	Internship in Automotive Technology (up to 2 units)	
BUS 0140	Small Business Management	

Total Units 19-20

Entry Level Automotive Service and Repair

Skills Certificate

Designed to give students the automotive service/repair knowledge and abilities to successfully enter the workforce as an entry level automotive service technician requiring minimal supervision. This skills certificate focuses on skills and knowledge needed to diagnose, service and repair automotive electrical, brake, suspension and steering. This is a specialty skills certificate designed to provide career technical skills to enter the automotive repair business; it is not equivalent to an associate degree.

Required Courses

AUTO 0001	Automotive Data Acquisition	0.5
AUTO 0064	Hydraulic and Brake Systems	4
AUTO 0071A	Automotive Electrical Systems	4
AUTO 0079	Suspension and Wheel Alignment	4
AUTO 0150	Introduction to Automotive Technology Profession	0.5

Total Units 13

Courses

Understanding course descriptions (p. 268)

AUTO 0001. Automotive Data Acquisition

Units: 0.5

Hours: 11 (7 lecture, 4 activity)

Retrieval and application of automotive service data from on-line technical data bases including ALLDATA and Mitchell on Demand, as well as other websites related to automotive service information, shop management systems and documentation. Recommended for all Automotive Program students during their first semester of study. (not transferable)

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 0031. Automotive Emission Control Systems*Units: 4.5*

Hours: 81 lecture

Training for meeting BAR Level 1 towards inspector license (E0), fundamental knowledge of engine and emission control theory, design, and operation. Successful completion meets the first step of the Bureau of Automotive Repair (BAR) training requirements for inexperienced or minimally experienced candidates for the Smog Check Inspector license (E0). (not transferable)

AUTO 0034. Advanced BAR Smog Check Inspection Training (Level 2)*Unit: 1.5*

Prerequisite: Completion of AUTO 31 with grade of "C" or better or equivalent as determined by instructor

Hours: 29 lecture

Provides students with the procedural knowledge, skills, and abilities needed to perform Smog Check inspections. Successful completion meets the BAR Level 2 training requirements necessary to take the California BAR Smog Check Inspector (E0) licensing examination. (not transferable)

AUTO 0059. Introduction to Automotive Service*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Designed for students with little or no formal background or training in the automotive field. Shop safety, tool usage, and hazardous waste management are covered. Vehicle topics include: engine operation, lubrication, cooling, ignition, electrical, suspension, fuel systems, brakes, tires and drive train. (CSU)

AUTO 0060. Skill and Speed Development*Units: 1-2*

Prerequisite: Completion of AUTO 1 and one of the following courses: AUTO 64, 66A, 68A, or 71A with grades of "C" or better

Hours: 54 laboratory per unit

Designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations. Individual projects selected by students with the agreement and guidance of instructor. Required of all automotive majors and automotive certificate students in area of specialization. Materials fee. (not transferable)

AUTO 0061. Vehicle and Engine Analyzing*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Study of automotive engine theories and principles. Emphasis on construction, repair, and adjustment methods of engine systems and components on engine performance diagnostic analysis using the latest equipment and methods. Also covers generic on-board diagnostic second generation (OBD2) engine control. Preparation for ASE Certification exam. (not transferable)

AUTO 0062A. Engine Fuel System Principles and Controls*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Basic principles of engine air/fuel management to meet emission and fuel economy needs. Emphasis on basic circuitry and adjustment procedures. A study of the relationship of today's oxygenated blends, engine performance and fuel controls using computerized and non-computerized carburetion and fuel injection. Preparation for ASE Certification examination. (CSU)

AUTO 0062B. Computer Controlled Carburetion and Fuel Injection*Units: 4*

Prerequisite: Completion of AUTO 61, 62A, and 71A with grades of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

Applications, theory of operation, and service to electronic computer controlled carburetion, fuel injection, and emission control systems. Diagnosis and repair driveability and engine performance faults involving all types of low and high pressure electronic feedback fuel injection systems on modern low and zero emission vehicles. Preparation for ASE Certification exam and smog repair technician license exam. (not transferable)

AUTO 0063. Advanced Engine Performance Diagnosis*Units: 4*

Prerequisite: Completion of AUTO 1 and 62B with grades of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

BAR Specified Diagnostic and Repair Training. Study of engine performance, electrical/electronics, advanced level engine performance diagnosis. Preparation for BAR Smog Check Repair Technician E1 License and ASE Certification exam. Formerly BAR A6, A8, and L1 alternative courses. (not transferable)

AUTO 0064. Hydraulic and Brake Systems*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Application of industry standards and practices for the inspection, diagnosis, service, and repair of automotive and light truck braking systems. Theory of operation as well as service procedures for disc and drum brake systems, hydraulic systems, power-assist devices, and anti-lock brake systems. Prepares students for California State Brake Adjuster License and ASE Brake Certification exam. (CSU)

AUTO 0066A. Engine Reconditioning*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Introduction to the machines and measuring processes used in the reconditioning of automotive and light truck engines including: cylinder head re-surfacing, valve guide repair, valve re-facing, valve seat replacement and finishing by grinding as well as carbide forming bits. Precision measurement of parts with micrometers and dial bore gauges. Part cleaning and inspection processes including Magnaflux and penetrating dye. Preparation for ASE Certification A-1. (CSU)

AUTO 0066B. Engine Reconditioning*Units: 4*

Prerequisite: Completion of AUTO 66A with grade of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

Advanced engine repair course. Students required to completely rebuild one liquid-cooled automotive engine. Engine and parts to be supplied by the student; cost varies from \$300 to \$1,000 or more. Preparation for ASE Certification exam A-1. (CSU)

AUTO 0068A. Basic Automatic Transmissions*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Theory of operation as well as service and repair practices for automatic transmissions and transaxles. Topics include: hydraulic torque converters and pumps, planetary gear sets, clutches and bands, hydraulic systems and apply devices, and electronic controls. Emphasis on diagnosis, adjustment, service, and rebuilding of transmissions used on domestic and foreign automobiles. Testing on a transmission dynamometer. Preparation for ASE Certification exam A-2. (not transferable)

AUTO 0069. Automotive Air Conditioning and Heating*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Principles in automotive air conditioning and heating systems. Emphasis on theory, controls, diagnosis, service, repair, and installation. A study in heat transfer, with methods of troubleshooting and repair of live vehicle air conditioning and heating systems. Includes use of State and Federal approved recovery and recycling equipment. Required to obtain EPA Section 609 refrigerant training certificate. Preparation for ASE Certification examination. (CSU)

AUTO 0071A. Automotive Electrical Systems*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Study of the theory, testing, diagnosis, and service of common body and engine electrical circuits, including batteries, switching, fusing, relays, thermal timers, DC motors, alternator principles, series circuits, and parallel circuits. Live system failure diagnosis using voltmeters, ammeters, and ohmmeters. Preparation for ASE Certification exam. (CSU)

AUTO 0075. Automotive Electronics*Units: 4*

Prerequisite: Completion of AUTO 71A with grade of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

Advanced study in automotive electronics, Controller Area Network (CAN), and control systems; resistor, capacitor, inductor, diode, and transistor circuitry with application to solid state sensors, controllers, and actuators. In-depth study of electrical diagnostics using computer-based diagnostic equipment and digital storage oscilloscope. Preparation for ASE Certification examination. (CSU)

AUTO 0079. Suspension and Wheel Alignment*Units: 4*

Formerly known as AUTO 77 and 78

Hours: 108 (54 lecture, 54 laboratory)

Principles of wheel alignment, steering and suspension systems and their components. Methods of measuring and adjusting alignment geometry for automobiles and light trucks including four wheel alignment. Identification and correction of damaged and worn steering components. Emphasis on analyzing the cause and correction of improper suspension and alignment conditions including conventional and strut-type suspension systems. Preparation for ASE Certification. (CSU)

AUTO 0080. Automotive Powertrains Manual Transmissions*Units: 4*

Hours: 108 (54 lecture, 54 laboratory)

Theory of operation as well as service and repair procedures for automotive and light truck manual transmission and drive train systems. Topics include: diagnosis and overhaul techniques for manual transmissions/transaxles, drivelines, four-wheel-drive transfer cases, clutches, and differentials (including limited slip). Preparation for ASE Certification A-3 Manual Drive Train and Axles. (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. 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 0150. Introduction to Automotive Technology Profession*Units: 0.5*

Hours: 9 lecture

Career exploration in the automotive technology industry. Includes orientation to the automotive technology program at Sierra College, employment opportunities, career pathways, educational planning for associate degree, certificate and transfer. Research on labor market and occupational information and development of an educational plan. (pass/no pass grading) (not transferable)

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

Sciences and Mathematics

Dean

Heather Roberts

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

Paul Badaracco**Professor, Biological Sciences**

B.A., University of California, Santa Barbara

M.A., University of California, Santa Barbara

April Bird**Assistant Professor, Biological Sciences**

B.S., University of California, Santa Cruz

M.S., University of Oregon

Laura Brahce**Assistant Professor, Biological Sciences**

B.A., University of Colorado, Boulder

M.P.H., University of Michigan

Keely Carroll**Professor, Biological Sciences**

B.S., California State University, Sacramento

M.S., California State University, Sacramento

Emine Gunhan**Assistant Professor, Biological Sciences**

M.D., Ankara University

M.S., Louisiana State University

Ph.D., University of California, Davis

Shawna Martinez**Professor, Biological Sciences**

B.S., University of California, Davis

M.S., California State University, Sacramento

Keri Muma**Professor, Biological Sciences**

B.S., University of the Pacific

M.S., University of the Pacific

Warren Place**Professor, Biological Sciences**

B.S., Humboldt State University

Ph.D., University of California, Davis

Jennifer Skillen**Professor, Biological Sciences**

B.S., University of California, Davis

Ph.D., Michigan State University

Ishtar Thomas**Professor, Biological Sciences**

B.A., California State University, Sacramento

M.S., California State University, Sacramento

Sasha Warren**Professor, Biological Sciences**

A.A., Chabot College

B.S., Humboldt State University

Ph.D., University of California, Davis

Liaison Counselors

Terri Maddux, Cherie Mathews, Sandra Muraki

Degrees/Certificates**Associate Degree for Transfer**

- Biology for Transfer (p. 64)

Associate Degrees

- Biological Sciences (p. 65)
- Watershed Ecology (p. 66)

Certificate of Achievement

- Watershed Ecology (p. 66)

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
- completion of the Intersegmental General Education Transfer Curriculum for Science, Technology, Engineering, and Mathematics (IGETC for STEM) (p. 263) pattern.¹

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

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.

Required Courses

BIOL 0001	General Biology	4
BIOL 0002	Botany	4.5
BIOL 0003	General Zoology	4.5
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
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	General Physics I and General Physics I Laboratory
& PHYS 0110 & PHYS 0110L	and General Physics II and General Physics II Laboratory

PHYS 0205 Principles of Physics: Mechanics
& 0205L and Principles of Physics Laboratory:
& PHYS 0210 Mechanics
& PHYS 0210L and Principles of Physics: Electricity and
Magnetism
and Principles of Physics Laboratory:
Electricity and Magnetism

Total Units **36-38**

¹ IGETC for STEM is only an option for students earning AS-T degrees in Biology for Transfer and/or Chemistry for Transfer. 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.)

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 12-15 units from the following: 12-15

BIOL 0001	General Biology
BIOL 0002	Botany
BIOL 0003	General Zoology
BIOL 0004	Microbiology (OR)
or BIOL 0008A	Microbiology I
& BIOL 0008B	and Microbiology II
BIOL 0005	Human Anatomy (OR)
or BIOL 0007A	Human Anatomy I
& BIOL 0007B	and Human Anatomy II

BIOL 0006 Human Physiology

Select 8-11 units from the following courses or unused courses from the previous area: 8-11

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 0008 Trigonometry

MATH 0012 College Algebra

MATH 0013 Elementary Statistics

MATH 0016A Calculus for Social and Life Sciences

MATH 0016B Calculus for Social and Life Sciences

MATH 0029 Pre-Calculus Mathematics

MATH 0030 Analytical Geometry and Calculus I

MATH 0042 Business Calculus

PHYS 0105 General Physics I
& 0105L and General Physics I Laboratory

PHYS 0110 General Physics II
& 0110L and General Physics II Laboratory

PHYS 0205 Principles of Physics: Mechanics
& 0205L and Principles of Physics Laboratory:
Mechanics

PHYS 0210 Principles of Physics: Electricity and
& 0210L Magnetism
and Principles of Physics Laboratory:
Electricity and Magnetism

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
Mountain

BIOL 0016P Death Valley and Desert Ecosystems

BIOL 0016Q Ecology of Mid-Western North America

BIOL 0016R Canyon Lands of the Southwest

BIOL 0016T Coastal Habitats of Northern California

BIOL 0016U Coastal Habitats of Central California

BIOL 0016V Deserts of Southern California

BIOL 0016W	Biology/Ecology of the Klamath and the Southern Cascade
BIOL 0016Y	Ecology of Selected Wilderness Ecosystems
BIOL 0016Z	Ecology of the American River
BIOL 0023	Wildflower Identification

Total Units **20.5-30**

Recommended Electives

CSCI 0010	Introduction to Computing	3
or CSCI 0050	Introduction to Unix/Linux	
ESS 0001	The Environment and the Human Impact	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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	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
ESS 0001	The Environment and the Human Impact
GEOG 0001	Physical Geography
MATH 0013	Elementary Statistics

Total Units **26-29**

¹ Only 3 units total may be taken from the BIOL 0016 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

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	4
BIOL 0095	Internship in Biological Sciences	1
ENGL 0001A	Introduction to Composition	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
ESS 0001	The Environment and the Human Impact
GEOG 0001	Physical Geography

MATH 0013 Elementary Statistics

Total Units

29-32

¹ Only 3 units total may be taken from the BIOL 0016 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. 268)

BIOL 0001. General Biology

Units: 4

Prerequisite: Completion of high school chemistry or CHEM A or higher with grade(s) of "C" or better; AND eligibility for ENGL 11

Advisory: Eligibility for ENGL 1A

Hours: 108 (54 lecture, 54 laboratory)

First course in the General Biology sequence for biology majors and pre-allied health students. Covers general biological concepts, with an emphasis on cellular and molecular biology, genetics, and evolution. (CSU, UC)

BIOL 0002. Botany

Units: 4.5

Prerequisite: Completion of BIOL 1 with grade of "C" or better

Advisory: Eligibility for ENGL 11 strongly recommended

Hours: 144 (54 lecture, 90 laboratory)

Introduction to botany, including classification, morphology, anatomy, physiology, diversity, ecology, and evolution emphasizing members of the Kingdoms Plantae, Fungi, Protista, and Prokaryotae. Topics relating to flowering plants stressed. Correlation of topics with scientific method and modern biological research. Non-life science majors see BIOL 14 and 22. (CSU, UC)

BIOL 0003. General Zoology

Units: 4.5

Prerequisite: Completion of BIOL 1 or 33 with grade of "C" or better

Advisory: Eligibility for ENGL 11 strongly recommended

Hours: 144 (54 lecture, 90 laboratory)

Detailed survey of the animal kingdom stressing evolution and ecology of animals and functional anatomy of their major organ systems.

Recommended for life science majors, premedical, preveterinary and related professional programs. (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. (CSU, UC-with unit limitation)

BIOL 0005. Human Anatomy

Units: 4

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 1A

Hours: 108 (54 lecture, 54 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 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 1A

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. This course is primarily intended for Nursing, Allied Health, Kinesiology, and other health or life science majors. (C-ID BIOL 120B) (CSU, UC-with unit limitation)

BIOL 0007A. Human Anatomy I

Units: 2.5

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 1A

Hours: 72 (36 lecture, 36 laboratory)

Structure, relationships among structures, and histology of the human body from cellular to organ system levels of organization. Includes integumentary, skeletal, nervous, and sensory systems. Cadaver prosections are used for instruction. The sequence of BIOL 7A/7B is equivalent to BIOL 5. Students enrolling in BIOL 5 after having taken BIOL 7A will lose credit for BIOL 7A. (combined with BIOL 7B, C-ID BIOL 110B) (CSU, UC-with unit limitation)

BIOL 0007B. Human Anatomy II

Units: 2.5

Prerequisite: Completion of BIOL 7A with grade of "C" or better

Hours: 72 (36 lecture, 36 laboratory)

Structure, relationships among structures, and histology of the human body from cellular to organ system levels of organization. Includes muscle, cardiovascular, lymphatic, endocrine, respiratory, digestive, urinary and reproductive systems. Cadaver prosections are used for instruction. The sequence of BIOL 7A/7B is equivalent to BIOL 5. (combined with BIOL 7A, C-ID BIOL 110B) (CSU, UC-with unit limitation)

BIOL 0008A. Microbiology I*Units: 2.5*

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: 81 (27 lecture, 54 laboratory)

Introduction to the biochemistry, morphology, classification and physiology of microorganisms, especially bacteria. Emphasis on the significance of microorganisms to human health and global ecology. The sequence of BIOL 8A/8B is equivalent to BIOL 4. Students enrolling in BIOL 4 after having taken BIOL 8A will lose credit for BIOL 8A. (CSU, UC-with unit limitation)

BIOL 0008B. Microbiology II*Units: 2.5*

Prerequisite: Completion of BIOL 8A with grade of "C" or better

Advisory: Eligibility for ENGL 11 strongly recommended

Hours: 81 (27 lecture, 54 laboratory)

Introduction to microbial genetics and metabolic regulation, viruses, microbial control, host defense, immunization, epidemiology, mechanisms of pathogenicity, and significance of microorganisms, especially bacteria and viruses. 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. The sequence of BIOL 8A/8B is equivalent to BIOL 4. CSU, UC-with unit limitation)

BIOL 0010. Introduction to Biology*Units: 3*

Advisory: Eligibility for ENGL 1A

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. (CSU, UC-with unit limitation)

BIOL 0011. Concepts of Biology*Units: 4*

Advisory: Eligibility for ENGL 1A 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 strongly recommended

Hours: 90 (36 lecture, 54 laboratory)

Introduction to methods for sampling and studying environmental parameters of ecosystems and organisms. Identification of microscopic and macroscopic organisms, quantitative and qualitative field research techniques and procedures applicable to environmental assessment and population monitoring. Field trips required. (CSU)

BIOL 0014. Natural History, Ecology and Conservation*Units: 4*

Advisory: Eligibility for ENGL 1A

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 biological environment. (CSU, UC)

BIOL 0015. Marine Biology*Units: 4*

Advisory: Eligibility for ENGL 11

Hours: 108 (54 lecture, 54 laboratory)

Introduction to basic biological and ecological principles of major saltwater environments. Stresses conservation and appropriate utilization of marine resources. Designed for both science and non-science majors. Laboratory hours partially fulfilled by required field trips. Hiking and boat travel may be necessary. Camping and entrance fees may be required. Students may be required to provide their own transportation on field trips. (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. Students may be required to provide their own transportation. (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 within Nevada County are investigated in the field to identify and study the characteristics of plants and animals and discover their relationships with the physical environment. Students may be required to provide their own transportation. (CSU)

BIOL 0016C. Vernal Pools and the California Prairie*Units: 0.5*

Hours: 13 (7 lecture, 6 laboratory)

Field study that explores the ecological past, present, and future of California's Great Valley ecosystems. Emphasis on remaining natural areas and conservation efforts. Special attention given to grasslands and vernal pool habitats. Students may be required to provide their own transportation. (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. Students may need to provide their own transportation. (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. Students may be required to provide their own transportation. (CSU)

BIOL 0016G. Field Paleontology and Ancient Environments*Units: 1-4*

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/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. Students may be required to provide their own transportation. (CSU)

BIOL 0016H. Ecology of the Mendocino Coast*Unit: 1*

Hours: 30 (12 lecture, 18 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. Hiking may be necessary. Camping and entrance fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016I. Biology of Mono Lake and the Great Basin*Unit: 1*

Hours: 30 (12 lecture, 18 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. Students may be required to provide their own transportation. (CSU)

BIOL 0016J. Ecology of Point Reyes National Seashore*Unit: 1*

Hours: 30 (12 lecture, 18 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. Hiking may be necessary. Camping and entrance fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016K. Foothill Ecology of the Sierra Nevada*Unit: 1.5*

Hours: 45 (18 lecture, 27 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. Camping fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016L. Aquatic and Riparian Environments of California Waterways*Unit: 1.5*

Hours: 45 (18 lecture, 27 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 bay/estuary environments are investigated. Study sites may include Lake Tahoe, the American River, San Francisco Bay and other aquatic locations. Hiking or boat travel may be necessary. Camping, entrance and transportation fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016M. Marine Mammals and Birds*Unit: 1.5*

Hours: 45 (18 lecture, 27 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. Hiking and boat travel may be necessary. Camping and entrance fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016N. Ecology of the Modoc Plateau*Unit: 1.5*

Hours: 45 (18 lecture, 27 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. Hiking may be necessary. Camping, entrance and transportation fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016O. Ecology of the High Sierra and White Mountain*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. Fees may be required for camping and other activities. Students may be required to provide their own transportation. (CSU)

BIOL 0016P. 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. Hiking may be necessary. Camping, entrance and transportation fees may be required. Students may be required to provide their own transportation. (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. Each ecological area explored as to its climate, common plants and animals, range, distribution, relationships, geology, historical changes, paleoecology and other environmental factors. Fossil and other evidence of past environments compared to present communities. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

BIOL 0016R. Canyon Lands of the Southwest*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Field biology and ecology of the Southwestern Canyon lands and semi-arid regions associated with the Grand Canyon, Zion, Bryce and nearby natural areas. Local plants, animals, microenvironments, river systems, human impacts and resource management and special biotic relationships with the canyon landscapes emphasized. Hiking may be necessary. Camping, entrance and transportation fees may be required. (CSU)

BIOL 0016T. Coastal Habitats of Northern California*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Field course exploring the unique biological and ecological features of the California north coast, which may include Redwoods National Park, Prairie Creek Redwoods, and Big Lagoon. Coastal ecosystems studied include the redwood forest, coastal grassland, rocky tidepool, marshes, stream, bog, coastal strand, and mixed-evergreen forest (their climate, geology, ecology, and plant and animal diversity). The human impacts of a growing population with resource demands discussed. Hiking may be necessary. Camping, entrance and transportation fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016U. Coastal Habitats of Central California*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 forests, oak woodland, grasslands and coastal scrub. Areas are contrasted with other coastal regions. Human impacts and living styles viewed as they effect the natural environments. Hiking and boat travel may be necessary. Camping, entrance and transportation fees may be required. (CSU)

BIOL 0016V. Deserts of Southern California*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Explore and study the "hot" deserts of Southern California (the Mojave and Sonoran/Colorado Deserts and regional variations), discovering their 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 include, at least, Joshua Tree National Park, Mojave Desert, Salton Sea, and Anza-Borrego State Park. Focuses upon the interdependency between the physical environments and the biological inhabitants that live there. Hiking may be necessary. Camping, entrance and transportation fees may be required. Students may be required to provide their own transportation. (CSU)

BIOL 0016W. Biology/Ecology of the Klamath and the Southern Cascade*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Field study that introduces the biology/ecology of the Klamath and southern Cascade Mountain Ranges. Study sites include a variety of locations and habitats such as Mt. Lassen, Crater Lake, and Marble Mountains. Special topics include ecological succession and montane biogeography. Fees for camping and transportation may be required. (CSU)

BIOL 0016Y. Ecology of Selected Wilderness Ecosystems*Units: 2*

Hours: 54 (27 lecture, 27 laboratory)

Field study of selected wilderness sites, comparing their biological inventory, ecological relationships, physical environments, and sensitivity to human interactions and activities. Both qualitative and quantitative field survey techniques are used to record ecological data at each study site. Management techniques, history, and objectives of wilderness preservation and resource use conflicts are emphasized. Camping and transportation fees may be required. Students may be required to provide their own transportation. (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. Students may be required to provide their own transportation. (CSU)

BIOL 0021. Introduction to Plant Science*Units: 4*

Also known as AGRI 156

Advisory: Eligibility for ENGL 1A

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*

Advisory: Eligibility for ENGL 1A

Hours: 108 (54 lecture, 54 laboratory)

Botanical characteristics, taxonomy, physiology, and community relationships of the major trees and shrubs in the Western United States. Discussion of commercial uses and geographic ranges of these plants. 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 1A

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 1A

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 nonscience majors. (CSU, UC-with unit limitation)

BIOL 0035. Introduction to Entomology*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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 11. (CSU, UC-with unit limitation)

BIOL 0056L. Biology: A Human Perspective Laboratory*Unit: 1*

Corequisite: 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. (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. 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 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.

Business

Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

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 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/Computer Information Systems

B.S., University of Alabama
M.B.A., Walden University

Anne Diamond

Assistant Professor, Business

A.A., American River College
B.S., California State University, Sacramento
M.B.A., California State University, Sacramento
Certified Public Accountant

Kurt 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 Jensen

Professor, Business

B.S., California State University, Chico
M.B.A., University of Oregon
Certified Public Accountant

Steven Linthicum

Professor, Business/Computer Information Systems

B.S., Arizona State University
J.D., University of the Pacific, McGeorge School of Law

Christine Magnani

Professor, Business

B.A., California State University, Sacramento
M.A., Chapman University, Orange
M.A., University of Nebraska, Lincoln

Thomas Read

Professor, Business

B.S., University of California, Berkeley
M.B.A., University of California, Los Angeles

Walter Walczykowski

Professor, Business

B.S., San Jose State University
M.B.A., San Jose State University
Certified Public Accountant

Liaison Counselors

Florence Charlie, Elena Farrelly, Reyes Ortega

Accounting Advisory Committee

- Ed Arnheiter, Professor, Drexel University, Sacramento
- Dan Baker, Partner, Gallina LLP, Roseville
- Carey Buck, C.P.A., Trinity Fresh, Sacramento
- Vanessa Burke, CFO, City of Stockton
- Paul Hayes, Woodcreek High School, Roseville
- Sabrina Higby, C.P.A., Higby Tax, Loomis
- James Kim, SVP and CFO, Community 1st Bank, Auburn
- Jon Nexsen, Ernst and Young, Roseville
- Kim Pellow, Director, Brandman University, Roseville
- Hugh Pfsich, Professor, California State University, Sacramento
- Michelle Phillips, C.P.A., Roseville
- Steve Phillips, C.P.A., Auburn
- Dan Seiler, C.P.A., Propp, Christensen, Caniglia, LLP, Roseville
- Bruce W. Stephenson, Chairperson, C.P.A., Gallina, LLP, Roseville
- Dale Waldschmitt, Pacific Coast Companies, Inc., Rancho Cordova
- Mike Welty, C.P.A., Utomomy, Inc., Rocklin
- Peter Wiese, C.P.A., Crowe Horwath, LLP, Sacramento
- Sherri Yokomizo, Oracle Corp., Sacramento

Degrees/Certificates

Associate Degree for Transfer

- Business Administration for Transfer (p. 72)

Associate Degrees

- Accounting (p. 73)
- Administrative Professional (p. 73)
- Business Administration (p. 74)
- Business Entrepreneurship (p. 74)
- General Business (p. 74)
- Management (p. 75)
- Marketing (p. 75)
- Real Estate (p. 75)

Certificates of Achievement

- Accounting (p. 73)
- Administrative Professional (p. 73)
- Business Entrepreneurship (p. 74)
- General Business (p. 74)
- Management (p. 75)
- Marketing (p. 75)
- Real Estate (p. 75)

Skills Certificate

- Small Business (p. 76)

Business Administration for Transfer

AS-T Degree

Business Administration 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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

BUS 0001	Financial Accounting I	3
BUS 0002	Financial Accounting II	3
BUS 0003	Managerial Accounting	3
BUS 0048	Business Law	3
ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
Select 4 units from the following:		4
MATH 0013	Elementary Statistics	
MATH 0042	Business Calculus	
Select 6-7 units from the following or unused course from the preceding area:		6-7
BUS 0020	Introduction to Business	
or BUS 0102	Business Communications	
CIS 0050	Applying Computer Software	
or CIS 0062	Business Information Systems	
or CSCI 0010	Introduction to Computing	
Total Units		28-29

Accounting

AA or AS Degree and/or Certificate of Achievement

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0001	Financial Accounting I	3
BUS 0002	Financial Accounting II	3
BUS 0003	Managerial Accounting	3
BUS 0009	Federal Income Taxation of Individuals	3
CIS 0050	Applying Computer Software	3
or CSCI 0010	Introduction to Computing	
CIS 0080	Spreadsheets in a Business Environment	3
Select 3 units from the following:		3
BUS 0008	Computerized Accounting for Windows	
BUS 0020	Introduction to Business	
BUS 0048	Business Law	
BUS 0055	International Business Practices	
BUS 0064	Business Mathematics	
BUS 0101	Personal Money Management	
BUS 0115	Introduction to Banking	
BUS 0150	Business Capstone	

Total Units 21

Administrative Professional

AA or AS Degree and/or Certificate of Achievement

(formerly Office Technology—Administrative Support Concentration)

Successful completion of the curriculum for the administrative professional qualifies students for entry-level positions requiring skills and abilities to provide administrative support for businesses and similar organizations. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0000A	Elements of Accounting	3
or BUS 0001	Financial Accounting I	
BUS 0008	Computerized Accounting for Windows	3
BUS 0020	Introduction to Business	3
BUS 0102	Business Communications	3

or ENGL 0012	Writing in the Workplace	
CIS 0050	Applying Computer Software	3
CIS 0070	Word Processing-Beyond the Basics	3
CIS 0080	Spreadsheets in a Business Environment	3
Select 3 units from the following:		3
BUS 0000B	Accounting and Finance for the Small Business Owner	
BUS 0052	Creating a Virtual Office (also CIS 0052)	
BUS 0053	Marketing a Virtual Office (also CIS 0053)	
BUS 0054	Managing a Virtual Office (also CIS 0054)	
BUS 0055	International Business Practices	
BUS 0064	Business Mathematics	
BUS 0085	Introduction to Oral Communication	
BUS 0095	Internship in Business	
or CIS 0095	Internship in Computer Information Systems	
BUS 0115	Introduction to Banking	
BUS 0116	Customer Service Skills	
CIS 0090	Database Management	
CIS 0100	Software for Dynamic Presentations	
CIS 0120	Creating Business Graphics with Microsoft Publisher	
CIS 0136	Project Management Concepts and Software	
Total Units		24

Business Administration

AA or AS Degree

The AA or AS degree in Business Administration is primarily for students who plan to transfer with a business major. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

BUS 0001	Financial Accounting I	3
BUS 0002	Financial Accounting II	3
BUS 0003	Managerial Accounting	3
CIS 0050	Applying Computer Software	3
or CIS 0062	Business Information Systems	
or CSCI 0010	Introduction to Computing	
BUS 0048	Business Law	3
or ECON 0001B	Principles of Microeconomics	
ECON 0001A	Principles of Macroeconomics	3
or ECON 0001B	Principles of Microeconomics	
MATH 0013	Elementary Statistics	3-4
or MATH 0024	Modern Business Mathematics	

or MATH 0042 Business Calculus

Total Units **21-22**

Recommended Elective

BUS 0150 Business Capstone 3

Business Entrepreneurship

AA or AS Degree and/or Certificate of Achievement

(formerly Small Business)

The Business Entrepreneurship curriculum prepares students to be owners, managers or employees in small to mid-size businesses. This program also serves as a business foundation for students seeking careers in entrepreneurial pursuits or small business development. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0000B	Accounting and Finance for the Small Business Owner	3
or BUS 0001	Financial Accounting I	
BUS 0020	Introduction to Business	3
BUS 0028	Independent Study	1-3
or BUS 0095	Internship in Business	
BUS 0102	Business Communications	3
BUS 0120	Introduction to Marketing	3
BUS 0140	Small Business Management	3

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

BUS 0048	Business Law	
BUS 0052	Creating a Virtual Office (also CIS 0052)	
BUS 0055	International Business Practices	
BUS 0085	Introduction to Oral Communication	
BUS 0101	Personal Money Management	
BUS 0115	Introduction to Banking	
BUS 0150	Business Capstone	
CIS 0050	Applying Computer Software	

Total Units **22-24**

General Business

AA or AS Degree and/or Certificate of Achievement

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0000A	Elements of Accounting	3
or BUS 0001	Financial Accounting I	
BUS 0020	Introduction to Business	3
BUS 0048	Business Law	3
BUS 0064	Business Mathematics	3
BUS 0085	Introduction to Oral Communication	3
or BUS 0102	Business Communications	
CIS 0050	Applying Computer Software	3
or CSCI 0010	Introduction to Computing	

Select 6 units from the following: 6

BUS 0008	Computerized Accounting for Windows	
BUS 0040	Real Estate Principles	
BUS 0049	Law and Society	
BUS 0055	International Business Practices	
BUS 0100	Management Concepts and Applications	
BUS 0101	Personal Money Management	
BUS 0115	Introduction to Banking	
BUS 0120	Introduction to Marketing	
BUS 0150	Business Capstone	
CIS 0080	Spreadsheets in a Business Environment	

Total Units 24

Management

AA or AS Degree and/or Certificate of Achievement

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0000A	Elements of Accounting	3
or BUS 0001	Financial Accounting I	
BUS 0020	Introduction to Business	3
BUS 0048	Business Law	3

or BUS 0049	Law and Society	
BUS 0100	Management Concepts and Applications	3
BUS 0102	Business Communications	3
BUS 0103	Human Resource Management	3
BUS 0140	Small Business Management	3

Select 3 units from the following: 3

BUS 0055	International Business Practices	
BUS 0101	Personal Money Management	
BUS 0115	Introduction to Banking	
BUS 0120	Introduction to Marketing	
BUS 0150	Business Capstone	
CIS 0050	Applying Computer Software	

Total Units 24

Marketing

AA or AS Degree and/or Certificate of Achievement

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0020	Introduction to Business	3
BUS 0120	Introduction to Marketing	3
BUS 0121	Advertising	3
BUS 0123	Retailing	3
BUS 0124	Selling Dynamics	3

Select 6 units from the following: 6

BUS 0001	Financial Accounting I	
BUS 0048	Business Law	
BUS 0055	International Business Practices	
BUS 0064	Business Mathematics	
BUS 0100	Management Concepts and Applications	
BUS 0115	Introduction to Banking	
BUS 0122	Marketing in the Digital Age	
BUS 0150	Business Capstone	
CIS 0050	Applying Computer Software	
or CSCI 0010	Introduction to Computing	

Total Units 21

Real Estate

AA or AS Degree and/or 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 and escrow and 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 (p. 250);
- California State University General Education Breadth (CU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0000A	Elements of Accounting	3
or BUS 0001	Financial Accounting I	
BUS 0040	Real Estate Principles	3
BUS 0041	Real Estate Practice	3
BUS 0047	Legal Aspects of Real Estate	3
BUS 0048	Business Law	3
BUS 0124	Selling Dynamics	3
Select 3 units from the following:		3
BUS 0052	Creating a Virtual Office (also CIS 0052)	
BUS 0064	Business Mathematics	
BUS 0085	Introduction to Oral Communication	
Total Units		21

Small Business

Skills Certificate

Successful completion of the Small Business skills certificate gives students practical skills to start or purchase and effectively manage a small business. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

BUS 0000B	Accounting and Finance for the Small Business Owner	3
BUS 0048	Business Law	3
BUS 0120	Introduction to Marketing	3
BUS 0140	Small Business Management	3
Total Units		12

Courses

Understanding course descriptions (p. 268)

BUS 0000A. Elements of Accounting

Units: 3

Hours: 54 lecture

An introductory course for students without previous study in bookkeeping or accounting. Provides practical skills for individuals to hold bookkeeping or account clerk positions; also appropriate for business owners, managers, administrative assistants and others needing practical knowledge of basic accounting. Includes basic accounting principles, ownership structures, payroll, internal controls, and financial statement analysis. (not transferable)

BUS 0000B. Accounting and Finance for the Small Business Owner

Units: 3

Hours: 54 lecture

Practical study of the accounting and financial management methods essential for the efficient operation of small businesses. Provides entrepreneurs with skills to prepare and analyze financial statements, understand the accounting cycle, prepare financial projections and manage cash flow, accounts receivable, accounts payable and inventory. (not transferable)

BUS 0001. Financial Accounting I

Units: 3

Hours: 54 lecture

Forms of business entities; principles of accounting; accounting cycle; recording transactions; preparing and analyzing financial statements; internal controls; bank reconciliation; petty cash; inventories and cost of goods sold. (combined with BUS 2, C-ID ACCT 110) (CSU, UC)

BUS 0002. Financial Accounting II

Units: 3

Prerequisite: Completion of BUS 1 or equivalent with a grade of "C" or better

Hours: 54 lecture

Accounting principles; receivables; tangible and intangible assets; current and long-term liabilities including bonds; capital stock and treasury stock; analysis of financial statements. (combined with BUS 1, C-ID ACCT 110) (CSU, UC)

BUS 0003. Managerial Accounting

Units: 3

Prerequisite: Completion of BUS 2 or equivalent 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 0008. Computerized Accounting for Windows

Units: 3

Prerequisite: Completion of BUS A or BUS 1 or equivalent

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 0009. Federal Income Taxation of Individuals*Units: 3*

Hours: 54 lecture

Study of the United States individual income tax system. Rights and responsibilities of taxpayers under the Internal Revenue Code. Introduction to filing status, exemptions, income exclusions and inclusions, capital gains/losses, itemized deductions, employee business expenses, sale of home, and tax planning. (CSU)

BUS 0019. Investments*Units: 3*

Hours: 54 lecture

An introduction to investment opportunities, principles and practices. Includes investments in government and corporate securities, mutual funds, real estate, and tax advantaged securities. (CSU)

BUS 0020. Introduction to Business*Units: 3*

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. (C-ID BUS 110) (CSU, UC)

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 0040. Real Estate Principles*Units: 3*

Formerly known as REAL 74

Hours: 54 lecture

Fundamental real estate course covering laws and principles of California real estate; gives understanding, background, and terminology necessary for advanced study in specialized courses. Helpful to those preparing for the real estate salesperson license examination. (CSU)

BUS 0041. Real Estate Practice*Units: 3*

Formerly known as REAL 75

Advisory: Completion of BUS 40 with grade of "C" or better

Hours: 54 lecture

Day-to-day operations in real estate, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics. Helpful to those preparing for the real estate salesperson license examination. (CSU)

BUS 0047. Legal Aspects of Real Estate*Units: 3*

Formerly known as REAL 76

Advisory: Completion of BUS 40 with grade of "C" or better

Hours: 54 lecture

Study of the practical aspects of California real estate law, including sources of law, government regulation, property ownership divisions, transfer, title, contracts, escrow, and landlord/tenant relationships. (CSU)

BUS 0048. Business Law*Units: 3*

Hours: 54 lecture

The law and its relationship to business with an emphasis on evaluating and managing potential legal and ethical problems. Includes contracts and sales, business torts, employment law, business organizations, and the regulatory environment. (C-ID BUS 125) (CSU, UC)

BUS 0049. Law and Society*Units: 3*

Hours: 54 lecture

Introduction to the American legal system, including theoretical and practical perspectives on the relationship of law to individuals and to society. Includes the U.S. Constitution, criminal law system, civil dispute resolution, consumer rights, interpersonal and property rights, and the law of the workplace. (CSU, UC)

BUS 0052. Creating a Virtual Office*Units: 3*

Also known as CIS 52

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the Virtual Office Profession. Explores issues to be addressed when creating a virtual office. Topics include managing time, customizing workplace environment, evaluating and buying technology, communicating with technology, and business ethics. (not transferable)

BUS 0053. Marketing a Virtual Office*Units: 3*

Also known as CIS 53

Advisory: Completion of BUS 52/CIS 52 and CIS 70 with grades of "C" or better

Hours: 54 lecture

Introduction to marketing techniques and skills needed for a virtual or home-based office. Students identify, evaluate, and employ various virtual marketing techniques such as online networking, developing marketing kits and plans, researching professional organizations, creating websites, and utilizing Web-based resources and social media to market skills, services, and products. (not transferable)

BUS 0054. Managing a Virtual Office*Units: 3*

Also known as CIS 54

Advisory: Completion of CIS 50, BUS 52/CIS 52, and BUS 53/CIS 53 with grades of "C" or better

Hours: 54 lecture

Examines specialized professional administrative concepts and documents used to manage information in the virtual workplace. Organizational concepts, decision making, effective business relationships, time and stress management, business plans, ethics, customer service, virtual business technology, and teamwork skills are emphasized. (not transferable)

BUS 0055. International Business Practices*Units: 3*

Advisory: Eligibility for ENGL 1A 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 0064. Business Mathematics*Units: 3*

Prerequisite: Placement by matriculation assessment process or completion of MATH 582 with grade of "C" or better or equivalent

Hours: 54 lecture

A practical application of business mathematics, including fractions, decimals, basic algebraic equations, percentages and their application, cash and trade discounts, markups and markdowns, notes and interest, compound interest, and present value. (not transferable)

BUS 0085. Introduction to Oral Communication*Units: 3*

Advisory: Completion of ENGL A or equivalent with a grade of "C" or better or placement by matriculation assessment process recommended

Hours: 54 lecture

Introduction to oral communication necessary in workplace and community. Involves verbal/nonverbal techniques, listening skills, group dynamics, interviewing processes, conflict management, research techniques and delivering oral presentations with emphasis on business situations. Build skills through interactive activities in a supportive environment. (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. 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 0100. Management Concepts and Applications*Units: 3*

Hours: 54 lecture

Foundation course that explores supervision concepts with a contemporary perspective. 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 0101. Personal Money Management*Units: 3*

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 and investments. Students will create a personal financial plan, including goals, budgets and a savings plan. (CSU)

BUS 0102. Business Communications*Units: 3*

Prerequisite: Completion of ENGL 1A with grade of "C" or better

Hours: 54 lecture

Ethical and effective written and oral communication principles and techniques for business situations. Planning, organizing, writing and revising business correspondence for internal and external use. Practice in preparing reports, effectively transferring information, and delivering a professional-level oral business presentation. Use of word processing and presentation-graphics software. Provides students a better perspective on communication challenges in the workplace. (C-ID BUS 115) (CSU)

BUS 0103. Human Resource Management*Units: 3*

Advisory: Completion of ENGL A with grade of "C" or better or placement by matriculation assessment process

Hours: 54 lecture

A foundational management course for understanding how to manage human capital. Topics, practical application projects and case studies that demonstrate the importance of human resources to drive innovation and competitive advantage. Five functional areas covered include staffing, human resource development, employee relations, workplace health and safety, and compensation. (CSU)

BUS 0115. Introduction to Banking*Units: 3*

Hours: 54 lecture

Practical approach to understanding banking operations and principles. Covers basic concepts of financial regulation, the U.S. banking system, money, deposit accounts, the check payment system, electronic banking, lending, bank performance, product sales, and safeguarding of customer information. (CSU)

BUS 0116. Customer Service Skills*Units: 3*

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 0120. Introduction to Marketing*Units: 3*

Hours: 54 lecture

The fundamental concepts, relationships, and structure necessary for an overall understanding of the field of marketing. Includes identifying and selecting target markets, understanding consumer behavior, and making product, pricing, distribution, and promotion decisions. (CSU)

BUS 0121. Advertising*Units: 3*

Hours: 54 lecture

Principles and practices of effective advertising. Marketing research, consumer behavior, target marketing, and media strategy are examined as tools for effective advertising. Creative methods and strategies are examined for the development of various types of advertising. (CSU)

BUS 0122. Marketing in the Digital Age*Units: 3*

Advisory: Completion of BUS 120 and CIS 37 with grades of "C" or better or equivalent

Hours: 54 lecture

Exploration, analysis and development of effective marketing techniques using the tools available in an evolving world of technology and digital information. Emphasis on marketing on the internet and using the latest technological tools to enhance marketing efforts. (CSU)

BUS 0123. Retailing*Units: 3*

Hours: 54 lecture

Concepts and principles involved in making decisions for retail firms. Sales methods, customer relations, store organization, principles of pricing, visual merchandising, buying and advertising are covered. Brick and mortar stores, catalogs, home shopping networks, and E-retailing examined. (CSU)

BUS 0124. Selling Dynamics*Units: 3*

Hours: 54 lecture

Introduction to communication skills and practical techniques needed in professional selling. Emphasizes the history, career, rewards, and duties of a professional sales consultant. Illustrates the importance of the sales function to the organization's success. Examines the social, ethical, and legal issues of selling. (CSU)

BUS 0140. Small Business Management*Units: 3*

Hours: 54 lecture

Practical aspects of starting, buying and managing a small business. Focus on home-based, service, "bricks and mortar," and e-businesses; forms of ownership, franchising, and preparing a business plan; financing a business; accounting and marketing fundamentals; managing human resources, technology, and insurance. (CSU)

BUS 0150. Business Capstone*Units: 3*

Prerequisite: Completion of one of the following courses with grade of "C" or better: BUS 2, 48, 102, 120, 140, or equivalent

Advisory: Completion of four or more required courses from a business degree or certificate program with a GPA of 3.0 or higher

Hours: 54 lecture

Integration and application of acquired knowledge to real world business problems. Students work in cross-functional groups (accounting, management, marketing, etc.) and utilize problem-solving principles and techniques to evaluate business case studies. Students explore employment and academic opportunities; development of communication, teamwork, leadership, and analytical skills vital to career success. Includes guest speakers and field trips to business, nonprofit and/or governmental organizations. Capstone course intended for students who have taken several business courses and will soon complete their studies. (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)

Program Student Learning Outcomes (PSLOs)

- Communicate effectively in oral and written forms.
- Analyze and critically evaluate information to solve a variety of business problems.
- Evaluate and use appropriate technology in the changing business environment.
- Display competency in the functional area of business related to the student's certificate or degree.

- Analyze ethical and social issues and make business decisions that reflect professional responsibility.

Chemistry

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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

Michael Brelle**Professor, Chemistry**

B.S., California State University, Chico
Ph.D., University of California, Santa Cruz

Florence (Nini) Cardoza**Professor, Chemistry**

B.A., San Francisco College for Women
M.S., University of California, San Francisco

Keri Clemens**Professor, Chemistry**

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

Pamela Gamel**Professor, Chemistry**

B.S., University of California, Davis
M.S., University of California, San Francisco

Jason Giuliani**Professor, Chemistry**

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

Stuart Hay**Assistant Professor, Chemistry**

B.S., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Susan Kurnett

Assistant Professor, Chemistry

B.A., University of California, Irvine

M.S., California State University, Sacramento

Rhiannon Porter

Assistant Professor, Chemistry

B.S., California Polytechnic State University, San Luis Obispo

Ph.D., University of California, Davis

Mark Springsteel

Professor, Chemistry

B.S., California State University, Fullerton

Ph.D., University of California, Davis

Liaison Counselors

Terri Maddux, Sandra Muraki

Degrees/Certificates

Associate Degree for Transfer

- Chemistry for Transfer (p. 80)

Associate Degree

- Chemistry (p. 80)

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
- completion of the Intersegmental General Education Transfer Curriculum for Science, Technology, Engineering or Mathematics (IGETC for STEM) (p. 263) pattern.¹

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

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.

Required Courses

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

¹ IGETC for STEM is only an option for students earning AS-T degrees in Biology for Transfer and/or Chemistry for Transfer. 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.)

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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

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

Courses

Understanding course descriptions (p. 268)

CHEM 0000A. Foundations of College Chemistry

Units: 4

Prerequisite: Completion of first year high school algebra or MATH A with grade(s) of "C" or better; eligibility for ENGL 50 or ENGL N

Advisory: Eligibility for ENGL 1A

Hours: 108 (54 lecture, 54 laboratory)

A nontransferable course primarily intended to prepare students for general college 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 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 11 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 CHEM 3B with grade of "C" or better

Advisory: Eligibility for ENGL 11 strongly recommended

Hours: 162 (54 lecture, 108 laboratory)

A continuation of CHEM 1A. Includes modern theories of bonding, thermodynamics, electro-chemistry, nuclear chemistry, chemical kinetics, and a brief introduction to organic and biochemistry through related lecture and laboratory exercises. Note: CHEM 1A/1B sequence may be started any semester. (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 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 11 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 11 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 intermolecular forces, solid state chemistry, solution chemistry, thermodynamics, electro-chemistry, nuclear chemistry, chemical kinetics, and brief introductions to organic and biochemistry. (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 1A; 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: 162 (54 lecture, 108 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 1A

Hours: 162 (54 lecture, 108 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 one year high school algebra or MATH A with grade of "C" or better

Corequisite: Concurrent enrollment in CHEM 2A

Advisory: Eligibility for ENGL 1A; completion of high school chemistry or CHEM A with grade of "C" or better; completion of two years of high school algebra or MATH D with grade(s) of "C" or better

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 1A

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 with grade of "C" or better, or placement by matriculation assessment process, or equivalent

Corequisite: Concurrent enrollment in CHEM 3X

Advisory: Eligibility for ENGL 11 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 11 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, redox, acid-base theory, equilibrium, and chemical bonding. This sequence fulfills the prerequisite for CHEM 1B. (CSU, UC-with unit limitation)

CHEM 0003X. Problem Solving for Chemistry 3A*Units: 2*

Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process, or equivalent

Corequisite: Concurrent enrollment in CHEM 3A

Advisory: Eligibility for ENGL 11 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 11 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, redox, acid-base theory, equilibrium, and chemical bonding. (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 11 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 11 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 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. 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 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Bruno**Professor, Communication Studies**

B.A., San Francisco State University

M.A., San Francisco State University

Jenifer Vernon**Assistant Professor, Communication Studies**

B.A., The Evergreen State College

M.A., University of Oregon

Ph.D., University of California, San Diego

Margaret Williams**Professor, Communication Studies**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Ed.D., University of California, Davis

Nicholas Zoffel**Professor, Communication Studies**

A.A., Grossmont College

B.A., San Jose State University

M.A., San Jose State University

Ph.D., Bowling Green State University

Liaison Counselors

Brian Gosney, Katie Juras

Degrees/Certificates

Associate Degrees for Transfer

Communication Studies for Transfer (p. 83)

- Journalism for Transfer (p. 84)

Associate Degrees

- Communication Studies—General Concentration (p. 84)
- Communication Studies—Graphic Design/Multimedia Concentration (p. 85)
- Communication Studies—Mass Communication Concentration (p. 85)

Communication Studies for Transfer

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

COMM 0001	Fundamentals of Public Speaking	3
Select 6 units from the following:		6
COMM 0002	Argumentation	
COMM 0003	Group Communication	
COMM 0008	Interpersonal Communication	
Select 6 units from the following or unused course from the preceding area:		6
COMM 0006	Oral Interpretation of Diverse Literatures	
COMM 0007	Intercultural Communication	
COMM 0010	Survey of Communication Studies	
COMM 0070	Mass Communication: Media and Society	
Select 3 units from the following or any unused course from the preceding areas:		3
COMM 0005	Communication Experience	
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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

COMM 0070	Mass Communication: Media and Society	3
COMM 0071	Newswriting and Reporting Techniques	3
COMM 0078	Media Practicum: Writing	3
Select 3 units from the following:		3
COMM 0012	Visual Communication (also AAD 0012)	
COMM 0072	Multimedia Reporting	
COMM 0079	Media Practicum: Publishing	
Select 6 units from the following:		6
COMM 0001	Fundamentals of Public Speaking	
COMM 0002	Argumentation	
COMM 0003	Group Communication	
COMM 0006	Oral Interpretation of Diverse Literatures	
COMM 0008	Interpersonal Communication	
COMM 0010	Survey of Communication Studies	
Total Units		18

Communication Studies—General Concentration

AA or AS Degree

(formerly Communication Studies—Oral Concentration)

The AA/AS degree in Communication Studies—General Concentration requires 27-28 units in the major. 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. 250);
- California State University General Education Breadth (p. 257) pattern;

- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

COMM 0001	Fundamentals of Public Speaking	3
COMM 0002	Argumentation	3
COMM 0003	Group Communication	3
COMM 0006	Oral Interpretation of Diverse Literatures	3
COMM 0008	Interpersonal Communication	3
COMM 0070	Mass Communication: Media and Society	3

Select 9-10 units from the following: 9-10

COMM 0007	Intercultural Communication	
COMM 0010	Survey of Communication Studies	
COMM 0012	Visual Communication (also AAD 0012)	
COMM 0028	Independent Study	
COMM 0071	Newswriting and Reporting Techniques	
or COMM 0072	Multimedia Reporting	
COMM 0095	Internship in Communication Studies (up to 4 units)	
CIS 0100	Software for Dynamic Presentations	
DRMA 0010A	Fundamentals of Acting	
or DRMA 0010B	Advanced Acting	

Total Units 27-28

Communication Studies—Graphic Design/Multimedia Concentration

AA or AS Degree

(formerly Communication Studies—Graphic Design Concentration)

The AA/AS degree in Communication Studies—Graphic Design/Multimedia Concentration requires 26-30 units in the major. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

COMM 0001	Fundamentals of Public Speaking	3
or COMM 0005	Communication Experience	
COMM 0006	Oral Interpretation of Diverse Literatures	3
COMM 0012	Visual Communication (also AAD 0012)	3
COMM 0070	Mass Communication: Media and Society	3
COMM 0071	Newswriting and Reporting Techniques	3
or COMM 0072	Multimedia Reporting	

Select 5-7 units from the following: 5-7

COMM 0010	Survey of Communication Studies	
COMM 0031A	Introduction to Video Production	
AAD 0020	Portfolio Development and Presentation	
AAD 0028	Independent Study	
or COMM 0028	Independent Study	

AAD 0061 Graphic Design II: Digital Design and Production

AAD 0095 Internship in Applied Art and Design (up to 4 units)
or COMM 0095 Internship in Communication Studies

Select 6-8 units from the following: 6-8

AAD 0052	Publication Design I	
AAD 0060	Graphic Design: Principles and Process	
AAD 0062	Graphic Computer Illustration	
AAD 0070	Introduction to Digital Design	
AAD 0075	Introduction to Digital Imaging (also PHOT 0075)	
AAD 0080	Introduction to Video Editing	
AAD 0085	Introduction to Web Design	
AAD 0090	Interactivity and Animation for the Web	
ART 0006C	Color Theory	

Total Units 26-30

Communication Studies—Mass Communication Concentration

AA or AS Degree

(formerly Communication Studies—Mass Communication/Multimedia Concentration)

The AA/AS degree in Communication Studies—Mass Communication Concentration requires 27-30 units in the major. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

COMM 0001	Fundamentals of Public Speaking	3
or COMM 0005	Communication Experience	
COMM 0002	Argumentation	3
COMM 0008	Interpersonal Communication	3
COMM 0070	Mass Communication: Media and Society	3
COMM 0078	Media Practicum: Writing	3

Select 12-15 units from the following: 12-15

COMM 0003	Group Communication	
COMM 0006	Oral Interpretation of Diverse Literatures	
COMM 0007	Intercultural Communication	
COMM 0010	Survey of Communication Studies	
COMM 0012	Visual Communication (also AAD 0012)	
COMM 0028	Independent Study ¹	
or COMM 0095	Internship in Communication Studies	
COMM 0071	Newswriting and Reporting Techniques	
COMM 0072	Multimedia Reporting	

COMM 0079 Media Practicum: Publishing

Total Units**27-30**¹ Only 3 total units may be taken from COMM 0028 and COMM 95.

Courses

Understanding course descriptions (p. 268)

COMM 0001. Fundamentals of Public Speaking

Units: 3

Prerequisite: Eligibility for ENGL 50 or ENGL N

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An introduction to essential principles and skills of public speaking. Preparing, presenting, and critiquing several speech types, particularly informative and persuasive speeches - with emphasis on the selection and organization of supporting material, reasoning, audience adaptation, persuasive strategies and elements of delivery. Formal written outlines are required for all major speeches. (C-ID COMM 110) (CSU, UC-with unit limitation)

COMM 0002. Argumentation

Units: 3

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

A course in argumentation theory and practice including critical evaluation of claims, research, evidence, reasoning, refutation, and rebuttal. Basic principles of argument structure and case building are applied, both in written and oral form, in a variety of problem solving and debate situations. (C-ID COMM 120) (CSU, UC)

COMM 0003. Group Communication

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Theory and practice in small group communication. Topics include dynamics of the small group communication process, individual accountability in groups, problem solving, conflict management, leadership, creative and critical thinking. Requires group and individual presentations and typed outlines. (C-ID COMM 140) (CSU, UC)

COMM 0005. Communication Experience

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An introduction to concepts and skills needed for effective communication in a variety of contexts. Includes practical experiences in interpersonal, intercultural, and small group communication. Requires classroom public speaking. (CSU, UC-with unit limitation)

COMM 0006. Oral Interpretation of Diverse Literatures

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to field of performance studies and issues of diversity through oral interpretation of literature. Through research, analysis and performance of poetry, prose, and dramatic works of diverse social and cultural groups, students gain insight into the role of voice, identity, and social justice in literature and performance. Focus on theories of interpretive performance, selection and analysis of literature for themes, audience analysis with attention to diversity, script writing, delivery, technique, solo and group performance events, and critical post-performance reflection and assessment. (C-ID COMM 170) (CSU, UC)

COMM 0007. Intercultural Communication

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A study of research and theory of communication between cultures. Emphasis on knowledge, motivation, and skill to recognize and achieve competence in intercultural communication in a variety of contexts: academic, professional and personal. Topics of examination include historical influences of cultures, cultural patterns, societal perspectives, and contexts for theoretical and practical application of intercultural communication skills. (C-ID COMM 150) (CSU, UC)

COMM 0008. Interpersonal Communication

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An investigation of the principles and theories of interpersonal communication. Analysis of the dynamics of one-on-one communication to improve competence. Areas of study include perception, self-concept, verbal and nonverbal communication, listening, conflict management, and relationship stages. (C-ID COMM 130) (CSU, UC)

COMM 0010. Survey of Communication Studies

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An introductory survey of the communication field, covering the theoretical study of the development of communication and its interrelationship with society. Includes the history of communication study, communication theory, and an overview of interpersonal, intercultural, small group, public, and organizational communication, as well as how communication takes place through the fine arts and mass media. (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 Video Production

Units: 3

Also known as AAD 79

Hours: 90 (36 lecture, 54 laboratory)

Introduction to principles, techniques and the terminology of video production and post-production. Guided classroom exercises and projects, including pre-production planning, video and audio recording techniques, remote (field) system set-ups and studio set-ups, lighting for single camera video shoots, and basic video editing and output. (CSU)

COMM 0070. Mass Communication: Media and Society*Units: 3*

Formerly known as COMM 15

Hours: 54 lecture

Survey of mass communication and the interrelationships of journalism and media with society including history, structure, performance and journalistic trends in a digital age. Discussion of theories and effects, economics, technology, law and ethics, global media, media literacy, and social issues, including race, gender, sexuality, cultural diversity, the impact of media on the self, culture, social and political discourse. (C-ID JOUR 100) (CSU, UC)

COMM 0071. Newswriting and Reporting Techniques*Units: 3*

Formerly known as COMM 21

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

An introduction to gathering, synthesizing/organizing and writing news in various journalistic and media styles across multiple platforms. Includes role journalists play in relating voice and agency, as well as evaluating legal issues and ethical implications. Introduction to the role of reporting and writing based on original interviews, story telling, and research to produce content and define context. Covers the history of journalism and the effects of mass communication and media on the self and broader cultures and society. (C-ID JOUR 110) (CSU, UC)

COMM 0072. Multimedia Reporting*Units: 3*

Formerly known as COMM 30

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to multimedia storytelling with a journalism emphasis. Techniques explored include use of video, photos, audio, animation, and text to convey interactive news and feature stories through the Internet and other electronic media. Also includes techniques in digital research, critical thinking, and synthesis. (C-ID JOUR 120) (CSU)

COMM 0078. Media Practicum: Writing*Units: 3*

Prerequisite: Eligibility for ENGL 1A

Advisory: Completion of ENGL 1A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Application of the principles of Journalism and Communication Studies to develop work for distribution to a campus and community audience. Includes weekly assignments to access a variety of student media across multiple platforms, including print, podcast, radio, and online, to develop news and non-fiction feature products. Practical experience in visual communication, online setting, multimedia journalism and emerging mass-communication technologies. (C-ID JOUR 130) (CSU)

COMM 0079. Media Practicum: Publishing*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 1C

Hours: 72 (36 lecture, 36 activity)

Intermediate student media practicum that regularly produces a news or feature non-fiction product with a communication and/or media emphasis by and for students and distributed to a campus or community audience. 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. (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. 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 Information Systems Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, Rocklin Campus

Overview

The Computer Information Systems program prepares students for any occupation that involves computer applications, database, technical and customer support services, web authoring/developing, Internet information researcher/architect, computer technician, network administration, database administration and upgrading job skills. Some courses prepare students for industry certifications such as CompTIA's, A+ 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

Denise Bushnell**Professor, Business/Computer Information Systems**

B.S., University of Alabama

M.B.A., Walden University

P.J. Elson**Professor, Computer Information Systems**

B.A., California State University, Chico

M.S., California State University, Sacramento

Steven Linthicum**Professor, Business/Computer Information Systems**

B.S., Arizona State University

J.D., University of the Pacific, McGeorge School of Law

Annette Nylander

Professor, Computer Information Systems

A.S., Sierra College

B.A., The Union Institute

M.B.A., DeVry University, Keller Graduate School of Management

Melissa Prinzing

Professor, Computer Information Systems

B.S., California Polytechnic State University, San Luis Obispo

M.B.A., California Polytechnic State University, San Luis Obispo

Liaison Counselors

Marcia Braga, Nancy Martinis, Rebecca Ortega

Computer Information Systems Advisory Committee

- Scott Bartos, Smile Business Products
- Jeffrey Davis, Computer Professional, NMT
- Steve Hurley, Owner, Network Nomads
- Owen Kittredge, President, Valley IT Support
- Dennis Krohn, President, DDIC Communications, Inc.
- Tim McKay, Owner, NMT
- Bob Nitrio, CEO, Ranvest Associates
- Karl Palachuk, Owner, Small Biz Thoughts
- David Prinzing, Solutions Architect, Clear Capital
- Stewart Schurr, Owner, Doctor PC, Auburn
- Doug Worley, Owner, Cornerstone IT Solutions

Degrees/Certificates

Associate Degrees

- Computer Information Systems—Computer Applications Concentration (p. 88)
- Computer Information Systems—Networking Concentration (p. 88)
- Computer Information Systems—Technical Support Concentration (p. 89)
- Virtual Office Professional—Administrative Concentration (p. 89)

Certificates of Achievement

- Computer Information Systems—Computer Applications Concentration (p. 88)
- Computer Information Systems—Networking Concentration (p. 88)
- Computer Information Systems—Technical Support Concentration (p. 89)
- Virtual Office Professional—Administrative Concentration (p. 89)

Skills Certificates

- Digital Literacy (p. 90)
- Information Assurance and Cyber Defense (p. 90)
- Information Assurance Technician (Level 1) (p. 90)
- Information Assurance Technician (Level 2) (p. 90)

Computer Information Systems—Computer Applications Concentration

AA or AS Degree and/or Certificate of Achievement

The Computer Applications concentration prepares students for positions as entry-level users of current computer applications including programs for processing and presenting text, numerical data and graphics. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0102	Business Communications	3
CIS 0050	Applying Computer Software	3
CIS 0070	Word Processing-Beyond the Basics	3
CIS 0080	Spreadsheets in a Business Environment	3
CIS 0100	Software for Dynamic Presentations	3
CIS 0120	Creating Business Graphics with Microsoft Publisher	3

Select 5-7 units from the following:

5-7

BUS 0116	Customer Service Skills
CIS 0030	Computer Literacy for College Success
CIS 0062	Business Information Systems
CIS 0067	Foundations for Creating Web Pages
CIS 0090	Database Management
CIS 0095	Internship in Computer Information Systems (up to 4 units)
CIS 0105	Microsoft Outlook-Managing Information
CIS 0136	Project Management Concepts and Software

Total Units

23-25

Computer Information Systems—Networking Concentration

AA or AS Degree and/or Certificate of Achievement

(formerly Computer Service Technology—Networking Concentration)

Successful completion of the curriculum in the Networking concentration prepares students for positions as network administrators and other network personnel. Many of the courses also help prepare students for the Microsoft Certification exams needed for achieving MCSA, MCSE and MCDBA. 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. 250);

- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0102	Business Communications	3
CIS 0062	Business Information Systems	3
CIS 0065	Computer Network Fundamentals	3
CIS 0141	Installing, Configuring and Administering a Client OS	3
CIS 0142	Systems and Network Administration	3
CSCI 0050	Introduction to Unix/Linux	3
Select 9-10 units from the following:		9-10
CIS 0026	Information and Communication Technology Essentials	
CIS 0088	Computer Forensics Fundamentals (also ADMJ 0088)	
CIS 0090	Database Management	
CIS 0095	Internship in Computer Information Systems (up to 4 units)	
CIS 0136	Project Management Concepts and Software	
CIS 0147	Introduction to Information Systems Security	
CIS 0149	Database Administration in a Client/Server Environment	
CIS 0151	Information Storage and Management	
CIS 0152	Introduction to Cybersecurity: Ethical Hacking	
CSCI 0012	Programming Concepts and Methodology I	
CSCI 0052	Introduction to SQL	
Total Units		27-28

Computer Information Systems—Technical Support Concentration

AA or AS Degree and/or Certificate of Achievement

(formerly Computer Information Systems—Administrative Technical Support)

The Technical Support concentration prepares students for positions as computer applications installers/trainers and technically oriented administrative personnel. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

CIS 0062	Business Information Systems	3
CIS 0065	Computer Network Fundamentals	3
CIS 0070	Word Processing-Beyond the Basics	3
CIS 0080	Spreadsheets in a Business Environment	3
CIS 0090	Database Management	3
CIS 0105	Microsoft Outlook-Managing Information	3
CIS 0141	Installing, Configuring and Administering a Client OS	3
or BUS 0116	Customer Service Skills	
Select 6-7 units from the following:		6-7
BUS 0102	Business Communications	
CIS 0067	Foundations for Creating Web Pages	
CIS 0095	Internship in Computer Information Systems (up to 4 units)	
CIS 0100	Software for Dynamic Presentations	
CIS 0120	Creating Business Graphics with Microsoft Publisher	
CIS 0136	Project Management Concepts and Software	
Total Units		27-28

Virtual Office Professional—Administrative Concentration

AA or AS Degree and/or Certificate of Achievement

Successful completion of the Virtual Office Professional—Administrative concentration prepares students for starting virtual office/home office/traditional businesses, addressing issues of creating, marketing and managing businesses. In addition, students are prepared to assume positions in businesses and industries that utilize administrative support, including executive assistants and office support specialists. Topics include time management, workplace customization, technology evaluation, communication through the use of advanced technologies and ethical business practices. 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. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

BUS 0102	Business Communications	3
BUS 0140	Small Business Management	3
CIS 0052	Creating a Virtual Office (BUS 0052) ¹	3
CIS 0053	Marketing a Virtual Office (also BUS 0053) ¹	3
CIS 0054	Managing a Virtual Office (also BUS 0054) ¹	3

CIS 0070	Word Processing-Beyond the Basics	3
CIS 0095	Internship in Computer Information Systems	1-3
or BUS 0095	Internship in Business	
Select 9 units from the following:		9
BUS 0000B	Accounting and Finance for the Small Business Owner	
BUS 0008	Computerized Accounting for Windows	
BUS 0055	International Business Practices	
BUS 0085	Introduction to Oral Communication	
BUS 0116	Customer Service Skills	
BUS 0122	Marketing in the Digital Age	
CIS 0062	Business Information Systems	
CIS 0067	Foundations for Creating Web Pages	
CIS 0080	Spreadsheets in a Business Environment	
CIS 0090	Database Management	
CIS 0100	Software for Dynamic Presentations	
CIS 0105	Microsoft Outlook-Managing Information	
CIS 0120	Creating Business Graphics with Microsoft Publisher	
CIS 0136	Project Management Concepts and Software	
Total Units		28-30

¹ It is recommended that the sequence of the three core courses be taken in order. Optional courses may be taken in any order.

Digital Literacy

Skills Certificate

(formerly Computer Basics)

Equips students with the essential Windows personal computer skills required for school or business. Helps prepare students for careers or fields of study that require computer use, such as data entry, clerical support, receptionist, or customer service and may serve as a foundation for acquiring advanced or specialized computer skills. 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

BUS 0116	Customer Service Skills	3
CIS 0030	Computer Literacy for College Success	3
CIS 0050	Applying Computer Software	3
SKDV 0010	How to be a Successful Online Student	1
Total Units		10

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

CIS 0065	Computer Network Fundamentals	3
CIS 0142	Systems and Network Administration	3
CIS 0147	Introduction to Information Systems Security	3
CSCI 0012	Programming Concepts and Methodology I	3
Total Units		12

Information Assurance Technician (Level 1)

Skills Certificate

This skills certificate aligns with the requirements developed by the Department of Defense relative to its Directive 8570.1 for achieving Information Assurance Technician Level 1 (IAT-1) status. Students are prepared for a wide variety of positions in the computer industry such as desktop support technician, level 1 and level 2 help desk support, customer service specialist and network administrator. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

CIS 0026	Information and Communication Technology Essentials	3-4
or CIS 0065	Computer Network Fundamentals	
CIS 0141	Installing, Configuring and Administering a Client OS	3
Total Units		6-7

Information Assurance Technician (Level 2)

Skills Certificate

This skills certificate aligns with the requirements developed by the Department of Defense relative to its Directive 8570.1 for achieving Information Assurance Technician Level 2 (IAT-2) status. Students are prepared for a wide variety of positions in the computer industry such as network administrator, internet security specialist, network analyst, systems administrator and database administrator. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

CIS 0142	Systems and Network Administration	3
or CSCI 0050	Introduction to Unix/Linux	
CIS 0147	Introduction to Information Systems Security	3
Total Units		6

Courses

Understanding course descriptions (p. 268)

CIS 0026. Information and Communication Technology Essentials*Units: 4*

Formerly known as CST 30

Hours: 72 lecture

Provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. Focuses on the fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional. Preparation for CompTIA's A+ certification exam. (C-ID ITIS 110) (CSU)

CIS 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)

CIS 0030. Computer Literacy for College Success*Units: 3*

Advisory: Concurrent enrollment in CIS 30L; completion of ESL 515 with grade of "C" or better for non native speakers

Hours: 72 (54 lecture, 18 laboratory)

Hands-on introduction to computer skills for students with little prior experience. Development of computer keyboarding technique, accuracy and speed. Creating, saving and organizing basic word processing and spreadsheet files. Includes computer activities to develop college success strategies. Introduces students to online learning system, using Windows, basic web searching, and using web-based email. (CSU)

CIS 0030L. Computer Literacy for College Success - Supplemental Laboratory*Units: 0.5*

Corequisite: Concurrent enrollment in CIS 30

Hours: 36 laboratory

Optional problem solving course to accompany and support success in CIS 30. For students with little prior computer experience. Basics of using Windows, web browsers, college email, online learning system, word processor, spreadsheet. Development of computer keyboarding technique, accuracy and speed. (pass/no pass grading) (not transferable)

CIS 0050. Applying Computer Software*Units: 3*

Advisory: Completion of CIS 30 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

An overview of business and academic use of common office application software for word processing, spreadsheets, charting data, databases, and presentations. Using current operating system 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. (CSU)

CIS 0050L. Applying Computer Software - Supplemental Laboratory*Units: 0.5*

Corequisite: Concurrent enrollment in CIS 50

Hours: 36 laboratory

Optional problem solving course to accompany and support success in CIS 50. Practice use and application of common office application software for word processing, spreadsheets, charting data, databases, and presentations. Practice using current business operating system software and online tools. (pass/no pass grading) (not transferable)

CIS 0052. Creating a Virtual Office*Units: 3*

Also known as BUS 52

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the Virtual Office Profession. Explores issues to be addressed when creating a virtual office. Topics include managing time, customizing workplace environment, evaluating and buying technology, communicating with technology, and business ethics. (not transferable)

CIS 0053. Marketing a Virtual Office*Units: 3*

Also known as BUS 53

Advisory: Completion of BUS 52/CIS 52 and CIS 70 with grades of "C" or better

Hours: 54 lecture

Introduction to marketing techniques and skills needed for a virtual or home-based office. Students identify, evaluate, and employ various virtual marketing techniques such as online networking, developing marketing kits and plans, researching professional organizations, creating websites, and utilizing Web-based resources and social media to market skills, services, and products. (not transferable)

CIS 0054. Managing a Virtual Office*Units: 3*

Also known as BUS 54

Advisory: Completion of CIS 50, BUS 52/CIS 52, and BUS 53/CIS 53 with grades of "C" or better

Hours: 54 lecture

Examines specialized professional administrative concepts and documents used to manage information in the virtual workplace. Organizational concepts, decision making, effective business relationships, time and stress management, business plans, ethics, customer service, virtual business technology, and teamwork skills are emphasized. (not transferable)

CIS 0062. Business Information Systems*Units: 3*

Advisory: Eligibility for ENGL 1A

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 BUS 140 and C-ID ITIS 120) (CSU)

CIS 0065. Computer Network Fundamentals*Units: 3*

Formerly known as CST 40

Advisory: Completion of CSCI 10 or CIS 50 with grade of "C" or better

Hours: 54 lecture

Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam. (C-ID ITIS 150) (CSU)

CIS 0067. Foundations for Creating Web Pages*Units: 3*

Advisory: Completion of CIS 50 with grade of "C" or better

Hours: 54 lecture

Introduction to building Web pages using HTML and basic Web-authoring software; technical and design concepts behind Web pages: how the Internet works, connection technologies, Web search techniques, evaluating Web pages, file transfer and management, file compression, browser tips and tricks, mailing lists, Internet security. (CSU)

CIS 0070. Word Processing-Beyond the Basics*Units: 3*

Advisory: Keyboarding skill of 25 w.p.m.; completion of CIS 50 and SKDV 10 with grades of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Advanced word processing techniques, including styles and outlines, generating form letters, mailing labels and envelopes using mail merge, working with master documents, indexes and tables of content, creating reports using wizards and templates, applying macros, integrating software, creating web pages and online forms. (CSU)

CIS 0080. Spreadsheets in a Business Environment*Units: 3*

Advisory: Completion of CIS 50 and SKDV 10 with grades of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Design and use of "what-if" analysis, static and dynamic web pages, 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)

CIS 0088. Computer Forensics Fundamentals*Units: 3*

Also known as ADMJ 88

Advisory: Completion of ADMJ 54 and CIS 147 with grades of "C" or better

Hours: 54 lecture

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. (CSU)

CIS 0090. Database Management*Units: 3*

Advisory: Completion of CIS 50 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Developing database systems using the current version of Microsoft Access. Includes designing database structures: tables, queries, forms, reports, and more. Also includes integrating with the Web, Excel and other programs. Emphasis on hands-on learning. (CSU)

CIS 0095. Internship in Computer Information Systems*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. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

CIS 0100. Software for Dynamic Presentations*Units: 3*

Advisory: Completion of CIS 50 or equivalent recommended

Hours: 72 (54 lecture, 18 laboratory)

Integration of text, graphics, animation, music, movies and other software applications within a realistic business context. Customizing and executing quality presentations using basic through advanced design styles and techniques. (CSU)

CIS 0105. Microsoft Outlook-Managing Information*Units: 3*

Advisory: Completion of CIS 50 with grade of "C" or better

Hours: 54 lecture

Includes managing email folders; sending, receiving, forwarding email messages; using "netiquette" and distribution lists; scheduling appointments, meetings, events; creating contacts, address books and calendars; tracking tasks; setting reminders; sharing information and publishing schedules via the web. (not transferable)

CIS 0120. Creating Business Graphics with Microsoft Publisher*Units: 3*

Advisory: Completion of CIS 50 or 70 with grade of "C" or better

Hours: 54 lecture

Designed to assist the office professional in utilizing Microsoft Publisher to create high-quality desktop publishing documents. Learning activities include preparation of a flyer, newsletter, logo, CD liner, business card, tri-fold brochure, calendar, catalog, event program, coupon, and certificate. (CSU)

CIS 0136. Project Management Concepts and Software*Units: 3*

Formerly known as the combination of CIS 135 and 136

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. (not transferable)

CIS 0141. Installing, Configuring and Administering a Client OS*Units: 3*

Formerly known as CST 45

Advisory: Completion of CIS 65 with grade of "C" or better

Hours: 54 lecture

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)

CIS 0142. Systems and Network Administration*Units: 3*

Formerly known as CST 50

Prerequisite: Completion of CIS 65 with grade of "C" or better

Advisory: Completion of CIS 62 with grade of "C" or better

Hours: 54 lecture

Course provides knowledge and skills required to build, maintain, troubleshoot and support server hardware and software 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)

CIS 0146. Wireless Networking and Security*Units: 3*

Formerly known as CST 71

Advisory: CIS 142 or equivalent experience

Hours: 72 (54 lecture, 18 laboratory)

Design, plan, implement, operate and troubleshoot wireless networks. Includes a comprehensive overview of technologies, security, and design best practices. Particular emphasis on hands-on skills in wireless LAN setup and troubleshooting, resilient WLAN design, installation and configuration, site surveys, and vendor interoperability strategies. (not transferable)

CIS 0147. Introduction to Information Systems Security*Units: 3*

Formerly known as CST 70

Prerequisite: Completion of CIS 65 with grade of "C" or better

Advisory: Completion of CIS 142 with grade of "C" or better

Hours: 54 lecture

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)

CIS 0148. Virtualization Concepts and Technologies*Units: 3*

Formerly known as CIS 421

Advisory: Completion of CIS 65 with grade of "C" or better

Hours: 54 lecture

Knowledge and skills necessary to understand and implement Virtualization Concepts. The core concepts of creating and managing virtual machines, network servers, and network design presented. Labs demonstrate benefits associated with virtualization such as fault tolerance and high availability. Successful completion of this course meets the educational requirement for VMware certification. (CSU)

CIS 0149. Database Administration in a Client/Server Environment*Units: 3*

Formerly known as CST 85

Advisory: Completion of CSCI 52, CIS 90 or equivalent

Hours: 72 (54 lecture, 18 laboratory)

Installation, configuration, administration and troubleshooting of a client-server database management system. Includes information on security, backup strategies, transaction log management, data mining, and more. (not transferable)

CIS 0151. Information Storage and Management*Units: 3*

Advisory: Completion of CIS 147 with grade of "C" or better

Hours: 54 lecture

Introduction to principles of information storage and management including the emerging field of virtualization technologies. Covers Direct Attached Storage (DAS), networked storage models such as Network Attached Storage (NAS), Storage Area Network (SAN), and Content Addressed Storage (CAS); and applications in business continuity, replication, disaster recovery, and cloud computing. Includes exposure to real-world storage networking technologies. (CSU)

CIS 0152. Introduction to Cybersecurity: Ethical Hacking*Units: 3*

Advisory: Completion of CIS 147 with grade of "C" or better

Hours: 54 lecture

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)

CIS 0160. Home Technology Integration*Units: 3*

Formerly known as CST 41

Advisory: Completion of CIS 65/CSCI 65, or CIE 25, or equivalent experience

Hours: 72 (54 lecture, 18 laboratory)

Introduction to home technology integration. Home networks and control of electrical sub-systems from the home computer or remotely through a web connection. Hands-on experience installing home technology equipment looking at issues, options and design considerations within the industry. Topics include tools and equipment needs, codes and standards, and installation options. (not transferable)

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.

Computer Science

Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, 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 Brown

Professor, Computer Science

B.S., University of California, San Diego

M.S., University of California, San Diego

William Cole

Professor, Computer Science

B.S.E.E., Duke University

M.S.E.E., Stanford University

Michael Dobeck

Professor, Computer Science

B.S., California State University, Sacramento

Liaison Counselors

Nancy Martinis, Reyes Ortega

Degrees/Certificates

Associate Degree for Transfer

- Computer Science for Transfer (p. 94)

Associate Degrees

- Computer Science—Computer Science Concentration (p. 95)
- Computer Science—Management Information Systems Concentration (p. 95)

Certificates of Achievement

- Computer Science—Embedded Systems Concentration (p. 95)
- Computer Science—Web Programming Concentration (p. 95)

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
- completion of the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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

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.

Required Courses

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

NOTE: IGETC is the only approved general education pattern for the Computer Science for Transfer degree. (CSU GE is NOT an approved option.)

Computer Science—Computer Science Concentration AA or AS Degree

The curriculum in Computer Science concentration prepares students for transfer to many 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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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 0021	The Game Development Process	
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 0055	ASP.NET Programming	
CSCI 0063	Web Programming II	
CSCI 0066	Object-Oriented Programming Using C++	
CSCI 0076A	Game Programming	
CSCI 0079	Mobile Device Programming	
Total Units		27

Computer Science—Management Information Systems Concentration

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 (p. 250);
- California State University General Education Breadth (CSU GE) (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

CSCI 0010	Introduction to Computing	3
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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
CIS 0065	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 0055	ASP.NET Programming	
CSCI 0059P	Web Programming with PHP	
CSCI 0059R	Ruby on Rails	
CSCI 0063	Web Programming II	
CSCI 0079	Mobile Device Programming	
Total Units		27

Computer Science—Embedded Systems Concentration Certificate of Achievement

Successful completion of the curriculum in Embedded Systems concentration 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

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
CSCI 0079	Mobile Device Programming	3
MECH 0010	Fundamentals of Electronics	4
Total Units		19

Computer Science—Web Programming Concentration Certificate of Achievement

Successful completion of the curriculum in Web Programming Concentration prepares students for careers in Web design, access and implementation and for writing programs that can be run from the Internet. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

CSCI 0055	ASP.NET Programming	3
CSCI 0059P	Web Programming with PHP	3
CSCI 0059R	Ruby on Rails	3
CSCI 0062	Web Programming I	3
CSCI 0063	Web Programming II	3
CSCI 0079	Mobile Device Programming	3
Total Units		18

Courses

Understanding course descriptions (p. 268)

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 a 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 0021. The Game Development Process*Units: 3*

Advisory: Completion of MATH D with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Introduction to the history, technology, ethics, and design of computer games. A generally accessible course about the process of creating computer games from concept to implementation, including documentation, storyboards, character design, gameplay, animation and marketing. Students use these concepts to create a complete computer game of their own design. Programming experience not required. (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, and process management. Development in a Unix environment will cover editors, shell scripting, makefiles, source code control, and networking. (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 0055. ASP.NET Programming*Units: 3*

Prerequisite: Completion of CSCI 27 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Intermediate Web programming course. Combines ASP (Active Server Pages) and Visual Basic .NET programming to create dynamic data-driven Web applications. Covers Web programming concepts including advanced topics of ADO and implementing security in ASP. (CSU)

CSCI 0059P. Web Programming with PHP*Units: 3*

Formerly known as CSCI 303

Prerequisite: Completion of CSCI 12 or 27 with grade of "C" or better

Advisory: Completion of CSCI 62 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Create dynamic, session-oriented, data-driven web sites using the PHP scripting language. Covers processing fill-out forms, database backends, session management, authentication and searching. (CSU)

CSCI 0059R. Ruby on Rails*Units: 3*

Prerequisite: Completion of CSCI 12 or CSCI 27 with grade of "C" or better

Advisory: Completion of CSCI 62 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Introduction to the Ruby object-oriented programming language and Rails web application framework. Using Ruby on Rails, web applications with tight database integration can be developed and deployed with speed and agility. Covers the fundamentals of programming in Ruby as it pertains to using Rails. Other topics include: the Rails model/viewer/controller architecture, SQL database backends, using layouts, scaffolds, and session management. (not transferable)

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 0063. Web Programming II*Units: 3*

Prerequisite: Completion of CSCI 62 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Intermediate Web programming course. Emphasizes Extensible HyperText Markup Language (XHTML) and JavaScript. Includes: animated Web pages; rollovers, menus, filters, and transitions; interactive windows/frames; form validation using regular expressions; shopping carts; and creating a dynamic table of contents. (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 0079. Mobile Device Programming*Units: 3*

Formerly known as CSCI 309

Prerequisite: Completion of CSCI 12 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Introduction to creating applications for mobile devices including Apple iPhone, iPad, and Google Android. Topics include touch interfaces, GUI elements, sensor input, simple animation and game play, network communication, and database access. (CSU)

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. 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.

Construction and Energy Technology Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, Rocklin Campus

Overview

The Construction and Energy Technology curriculum is designed to give students a broad knowledge of the construction and energy industries. Coursework 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 construction management programs as well as training for entry-level employment in the construction industries. The energy and photovoltaics courses provide the fundamental skills needed to excel in an energy sector career. In addition to degree and transfer opportunities, skills certificates are available in the field of photovoltaics.

Faculty

Steve Geiger

Assistant Professor, Construction and Energy Technology
B.S., San Jose State University

Liaison Counselors

Dale Quadros, Tonya Times

Construction and Energy Technology Advisory Committee

- Jeff Bailey, Instructor, Roseville High School
- Phil Barnes, Manager, Energy Home Performance, Rocklin
- Jim Bayless, Treasure Homes
- Jon Bertolino, Sacramento Municipal Utility District
- Michelle Bertolino, Roseville Electric
- Jedediah Biagi, Plan It Solar
- Anna Bousouris, Sierra Solar
- Julia Burrows, Valley Vision
- Peter Davis, ATTEI
- Michael Dela Pena, Greentern
- Steve Dolan, Instructor, Roseville High School
- Brett Dotson, SMA-America
- Cheryl Gibson, President, Von-Jac Development, Inc.; Board Member, Placer County Contractors Association, Auburn
- Jim Gragg, SOLAReCITY Electric
- John Hill, Sierra Solar
- Brian Hurd, Hands On Solar
- Darrell Johnson, Pacific Gas and Electric
- Devan Johnson, KW Engineering
- Sue Kateley, CalSEIA
- Rick Larkey, Director, Workforce Development, North State Building Industry Association, Roseville
- Richard Lindstadt, Foresthill High School
- Sue Lunsford, Foresthill High School
- Barbie Lussier-Davis, Owner, Mission West Builders, Cameron Park
- Gil Mathew, Sierra Solar

- Derek Ogden, City of Roseville
- John Orr, Program Consultant, North State Building Industry Association, Roseville
- Steve Paris, Instructor, Del Oro High School, Loomis
- Patrick Remington, Owner, Remington Construction, Auburn
- Jonathan Schwartz, Instructor, Colfax High School
- David Schweickert, Co-owner, Capital City Solar, Roseville
- Erika Schweickert, Co-owner, Capital City Solar, Roseville
- Terry Seabury, Executive Director and CEO, Goweka Solutions, Sacramento
- Terri Shirhall, City of Roseville
- Sam Vanderhoof, Pacific Renewables Group
- Martin Webb, Plan It Solar
- David Weld, Instructor, Oakmont High School, Roseville
- Susan Wheeler, Coordinator, Education Relations, Sacramento Municipal Utility District
- Dan Zeisler, Principal, Chicago Park

Degrees/Certificates

Associate Degrees

- Construction Management (p. 98)
- Energy Technology (p. 99)
- Residential Building Construction (p. 99)

Certificates of Achievement

- Energy Technology (p. 99)
- Residential Building Construction (p. 99)

Skills Certificates

- Photovoltaic (p. 100)
- Photovoltaic Advanced (p. 100)

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;

- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

CET 0001	OSHA Construction Safety Training	1
CET 0005	Introduction to the Built Environment	3
CET 0020	Foundations and Framing	3
CET 0022	Introduction to Energy Efficiency Construction	3
BUS 0001	Financial Accounting I	3
BUS 0002	Financial Accounting II	3
BUS 0003	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		34

Energy Technology

AS Degree and/or Certificate of Achievement

The Energy Technology program prepares students for jobs in the field of renewable energy, such as solar power installation, site supervision, sales, system maintenance and management. Students receive a background in sustainability while gaining specific technical skills related to renewable energy installation. As students complete courses for the degree, they also qualify for two skills certificates in photovoltaics and are prepared to sit for the NABCEP Entry Level Exam. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

CET 0040	Beginning Photovoltaic Systems	4
CET 0042	Intermediate Photovoltaic Systems	4
CET 0044	Advanced Photovoltaic Systems	4
DES 0020	Architectural Drawing I	3
ESS 0001	The Environment and the Human Impact	3
ESS 0007	Energy, Environment, and Climate (also ESCI 0007)	3

Select 6-8 units from the following: 6-8

CET 0022	Introduction to Energy Efficiency Construction	
CET 0024	Fundamentals of Construction Documents and Estimating	
CET 0026	Residential House Wiring and Codes	
CET 0032	Residential Building Codes	

CET 0046	Solar Photovoltaic Sales	
DES 0021	Architectural Drawing II	
ESS 0010	Conservation of Natural Resources	
MECH 0004	Fundamentals of Mechatronics	
MECH 0010	Fundamentals of Electronics	

Total Units 27-29

Residential Building Construction

AA or AS Degree and/or Certificate of Achievement

The curriculum in Residential Building Construction prepares students for entry-level building construction positions, such as carpenter, electrician, plumber and estimator. Credit for up to one and one-half years of the contractor's examination experience requirement may be granted by the Contractors State License Board for completion of the Residential Building Construction degree. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

CET 0001	OSHA Construction Safety Training	1
CET 0003	Basics of Construction and Woodworking	3
CET 0005	Introduction to the Built Environment	3
CET 0020	Foundations and Framing	3
CET 0022	Introduction to Energy Efficiency Construction	3
CET 0024	Fundamentals of Construction Documents and Estimating	3
CET 0026	Residential House Wiring and Codes	3
CET 0030	Finish Carpentry	3
CET 0034	Plumbing Installation and Design	3

Select 6-8 units from the following: 6-8

CET 0007	Materials of Construction	
CET 0032	Residential Building Codes	
CET 0040	Beginning Photovoltaic Systems	
CET 0042	Intermediate Photovoltaic Systems	
CET 0044	Advanced Photovoltaic Systems	
CET 0050	Interior and Exterior Finishing	
CET 0060	Production Cabinetry (Traditional)	
CET 0070A	Advanced Skill and Speed Development - Concrete	
CET 0070B	Advanced Skill and Speed Development - Framing	
CET 0070C	Skill and Speed Development-Cabinetry and Furniture	
DES 0020	Architectural Drawing I	

DES 0021 Architectural Drawing II

Total Units 31-33

Photovoltaic Skills Certificate

(formerly offered in the Environmental Studies and Sustainability department)

The purpose of the Photovoltaic Skills Certificate is to provide students with the knowledge and skills required to obtain employment as Photovoltaic System Installers and Technicians. Emphasis is on the critical skill competencies as recommended by the North American Board of Certified Energy Practitioners for entry level photovoltaic systems work. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

CET 0040	Beginning Photovoltaic Systems	4
CET 0042	Intermediate Photovoltaic Systems	4

Total Units 8

Photovoltaic Advanced Skills Certificate

(formerly offered in the Environmental Studies and Sustainability department)

The purpose of the Photovoltaic Advanced Skills Certificate is to provide students with the knowledge and skills required to obtain employment as Photovoltaic System Installers, Technicians and entry-level Designers. Emphasis is on the critical skill competencies as recommended by the North American Board of Certified Energy Practitioners. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

CET 0040	Beginning Photovoltaic Systems	4
CET 0042	Intermediate Photovoltaic Systems	4
CET 0044	Advanced Photovoltaic Systems	4

Total Units 12

Courses

Understanding course descriptions (p. 268)

CET 0001. OSHA Construction Safety Training

Unit: 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. Upon successful completion, 10 hour OSHA card issued by instructor. (not transferable)

CET 0003. Basics of Construction and Woodworking

Units: 3

Formerly known as CTC 1 or CTR 1

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 1

Hours: 108 (36 lecture, 72 laboratory)

Designed to teach the skills required to be successful in the construction and wood working industries. Topics include fundamentals of woodworking, safe operation of hand tools, introduction to woodworking materials, project drawings, and environmentally sound design and construction techniques. Hands-on experience with woodworking tools and materials based on assigned student project(s). (not transferable)

CET 0005. Introduction to the Built Environment

Units: 3

Formerly known as CTR 45

Hours: 54 lecture

Introduction to the building industry: trends, organizations, construction processes, contracting laws, regulations, business aspects and career pathways. (CSU)

CET 0007. Materials of Construction

Units: 4

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 1

Hours: 180 (18 lecture, 162 laboratory)

Hands-on study of the performance characteristics of building 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)

CET 0020. Foundations and Framing

Units: 3

Formerly known as CTR 42

Hours: 108 (36 lecture, 72 laboratory)

Fundamentals of residential foundation and floor system techniques involving layout and construction to include: establishing elevations, site preparation, types of foundation forms, rebar and bolt installation, concrete placement techniques, various types of floor systems, and code requirements specific to the above. Major lab project: construction of a foundation and floor system. Includes use and practices of materials and codes related to California Green Technology and "Net Zero Energy" policies. (CSU)

CET 0022. Introduction to Energy Efficiency Construction

Units: 3

Formerly known as CTR 44

Hours: 108 (36 lecture, 72 laboratory)

Fundamentals of residential framing both conventional and green energy efficient techniques involving layout and construction to include: exterior and interior walls, ceilings, roof systems, stair designs and installation. Major lab project: framing a project in the community. Includes use and practices of materials and codes related to California Green Technology and "Net Zero Energy" policies. (CSU)

CET 0024. Fundamentals of Construction Documents and Estimating

Units: 3

Formerly known as CTR 47 and 48

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)

CET 0026. Residential House Wiring and Codes*Units: 3*

Formerly known as CTR 60

Hours: 108 (36 lecture, 72 laboratory)

Instruction basic to the electrical wiring trade. Inside wiring as applied to residential 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 CEC updates due to California Green Technology and "Net Zero Energy" policies. (CSU)

CET 0028. Independent Study*Units: 1-3*

Formerly known as CTR 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)

CET 0030. Finish Carpentry*Units: 3*

Formerly known as CTR 41

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 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)

CET 0032. Residential Building Codes*Units: 3*

Formerly known as CTR 52

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 ICF green technology buildings. Includes codes related to California Green Technology and "Net Zero Energy" policies. (not transferable)

CET 0034. Plumbing Installation and Design*Units: 3*

Formerly known as CTR 62

Hours: 108 (36 lecture, 72 laboratory)

Planning, installing, and maintaining simple waste, water and gas plumbing systems in accordance with good practice and in conformity to local codes and ordinances. Overview of new plumbing techniques. Includes use of materials and codes related to California Green Technology and "Net Zero Energy" policies. (CSU)

CET 0040. Beginning Photovoltaic Systems*Units: 4*

Formerly known as ESS 30

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 1

Hours: 108 (54 lecture, 54 laboratory)

Introduction to photovoltaic concepts, applications, and the solar energy industry. Includes basics of electricity, load estimation, energy efficiency, solar site assessment, photovoltaic system components, sizing, financial analysis, design, installation concepts, and maintenance. This course taken with CET 42 prepares students to sit for the NABCEP PV Entry Level Certificate of Knowledge exam. (CSU)

CET 0042. Intermediate Photovoltaic Systems*Units: 4*

Formerly known as ESS 32

Prerequisite: Completion of CET 40 with grade of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

Expands on the fundamentals of photovoltaics with a focus on system design and installation concepts of grid-connected residential and small commercial systems. Topics include detailed system sizing, array layout, mounting on various roof constructions, mechanical and electrical integration as well as related electrical codes and workplace safety standards. This course, taken with CET 40, prepares students to sit for the NABCEP PV Entry Level Certificate of Knowledge exam. (CSU)

CET 0044. Advanced Photovoltaic Systems*Units: 4*

Formerly known as ESS 34

Prerequisite: Completion of CET 42 with grade of "C" or better

Hours: 108 (54 lecture, 54 laboratory)

Examines the theoretical and technical dimensions of photovoltaic (PV) systems in detail. Topics include advanced principles of electricity and how they apply to PV systems, commissioning, troubleshooting, net metering laws, local codes, and National Electric Code PV requirements. Off campus activities required. (CSU)

CET 0046. Solar Photovoltaic Sales*Units: 3*

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 40

Hours: 54 lecture

Introduction to photovoltaic sales concepts and the solar energy industry. Includes basics of photovoltaic marketing, sales, incentives, site usage, site assessment, photovoltaic system components, system sizing, financial analysis, and sales communication techniques. (not transferable)

CET 0050. Interior and Exterior Finishing*Units: 3*

Formerly known as CTC 24 or CTR 24

Hours: 108 (36 lecture, 72 laboratory)

Focus on removal and preparation of existing and new finishes, sanding, masking, caulking, applications of stains, shellac, varnishes and lacquers, interior and exterior painting with primers and paint, use of brushes, rollers and spray systems, HVLP and airless. (not transferable)

CET 0060. Production Cabinetry (Traditional)*Units: 3*

Formerly known as CTC 5 or CTR 5

Advisory: Completion with grade of "C" or better or concurrent enrollment in CET 3

Hours: 108 (36 lecture, 72 laboratory)

Economy and custom grade conventional case construction revolving around industrial standards, joinery, processes, structures and hardware of residential case structural systems. Also includes computer-aided spatial designs. Lab work shall be instructor-initiated case structures for a residential project. (not transferable)

CET 0070A. Advanced Skill and Speed Development - Concrete*Units: 3*

Formerly known as CTR 37A

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in CET 20

Hours: 108 (36 lecture, 72 laboratory)

Designed to provide an advanced level of skill, speed, and experience for concrete students. Continued in-depth study of materials acquisition, scheduling, detailed layouts, forming for foundations or other applications using concrete as a base. Uses extensive problem solving in the completion of a department selected project. (not transferable)

CET 0070B. Advanced Skill and Speed Development - Framing*Units: 3*

Formerly known as CTR 37B

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in CET 22

Hours: 108 (36 lecture, 72 laboratory)

Designed to provide an advanced level of skill, speed, and experience for framing students. Continued in-depth study of materials acquisition, scheduling, detailed layouts for framing structures, to include floors, walls, rooms, and roofs. Uses extensive problem solving in the completion of a department-selected project. (not transferable)

CET 0070C. Skill and Speed Development-Cabinetry and Furniture*Units: 3*

Formerly known as CTC 35 or CTR 38

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in CET 3

Advisory: Completion of CET 60 with grade of "C" or better

Hours: 108 (36 lecture, 72 laboratory)

Designed to further develop skill, speed, and experience capabilities to advance knowledge in construction technology. In-depth study of architectural woodwork standards; extensive problem solving in student-selected laboratory projects. (not transferable)

CET 0095. Internship in Construction and Energy Technology*Units: 0.5-4*

Formerly known as CTR 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. 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 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.

Deaf Studies Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 aid them in the area they are currently pursuing.

Liaison Counselors

Scott Bramlett, Brook Oliver

Degrees/Certificates

Deaf Studies—American Sign Language

AA Degree and/or Certificate of Achievement

The Deaf Studies program offers courses leading to a certificate as well as an Associate of Arts 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

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

ANTH 0002	Cultural Anthropology	3
BIOL 0055	General Human Anatomy and Physiology	4
COMM 0003	Group Communication	3
COMM 0007	Intercultural Communication	3
COMM 0010	Survey of Communication Studies	3
DRMA 0010A	Fundamentals of Acting	3
DRMA 0013	Introduction to Theater	3
HDEV 0001	Human Development through the Lifespan	3
HDEV 0004	Child, Family, and Community	3
HED 0002	Health Education	3
PSYC 0100	General Principles of Psychology	3
PSYC 0103	Social Psychology	3
PSYC 0104	Developmental Psychology	3
SOC 0001	Introduction to Sociology	3

Courses

Understanding course descriptions (p. 268)

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 (ASL 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

Course introduces topics central to the Deaf and Deaf community, including audiology, interpreting, education, culture, history, linguistics, sociology, and psychology. Designed to introduce basic information of the American Deaf experience in the United States: Deaf Community/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. 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.

Drafting and Engineering Support

Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, Rocklin Campus

Overview

The Drafting and Engineering Support curriculum is designed to prepare students for careers in industry as engineering support technicians who plan, prepare and interpret engineering sketches for design and drafting relative to mechanical and architectural designs, civil structures and developments, weldments, electronic circuits, or landscape architecture and design. Includes sketching and the application of Computer Aided Drafting and Design (CADD) software to the creation of graphic representations and simulations in support of engineering projects.

AA and AS degrees as well as certificates can be earned in the Drafting and Engineering Support Program. The certificate programs do not satisfy AA/AS degree requirements but do qualify students for a certificate in the field of study.

Faculty

Alison Salome

Professor, Drafting and Engineering Support

A.A., Sierra College

Liaison Counselors

Brian Gosney, Reyes Ortega

Drafting and Engineering Support Advisory Committee

- J.T. Douppnik, Architect, Gary Douppnik Manufacturing, Loomis
- Eric Driever, Architect, William Paddon Associates, Roseville
- Pam Emrick, Designer, Pasco Scientific, Roseville
- Terence J. Green, Architect, William Paddon Associates, Roseville
- Philip Hawkins, Architect, PHA and Associates, Auburn
- Anatole Hulewsky, Designer, ALH and Associates, Fair Oaks
- Stephen M. Jung, Architect, Gordon Rogers and Company, Rocklin
- Eric Kim, CAD Designer, Visual Enterprises, Citrus Heights
- Michael Manasco, Designer, Stantec, Sacramento
- John Masha, P.E., Civil Engineer, MJM Engineering Consultant, Folsom
- Earl McGuire, Engineer, McGuire Engineering, Placerville
- Michael Kent Murphy, AIA, Michael Kent Murphy Architect, Auburn
- Floyd Riffey, Senior Designer, Aerojet—Tech Systems, Sacramento
- Gordon Rogers, Architect, Gordon Rogers and Company, Rocklin
- Christine Thompson, Designer, Lionakis Beaumont, Sacramento
- Phil Titus, AIA, Rauschenbach Marvelli Becker Architects, Sacramento
- Marni Vincent, Design and Build Assistance, Colfax

- Butch Webb, Centex Homes, Roseville

Degrees/Certificates

Associate Degrees

- Drafting and Engineering Support—Architectural/Civil Concentration (p. 104)
- Drafting and Engineering Support—Mechanical/Civil Concentration (p. 105)

Certificates of Achievement

- Drafting and Engineering Support—Architectural/Civil Concentration (p. 104)
- Drafting and Engineering Support—Mechanical/Civil Concentration (p. 105)

Skills Certificates

- Architectural Drafting Specialist (p. 105)
- Drafting Essentials (p. 105)
- Mechanical Drafting Specialist (p. 105)

Drafting and Engineering Support—Architectural/Civil Concentration

AA or AS Degree and/or Certificate of Achievement

(formerly Engineering Support Technology—Architectural Concentration)

Successful completion of the curriculum in Drafting and Engineering Support—Architectural/Civil Concentration 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

DES 0001	Technical Drafting I	3
DES 0002	Technical Drafting II	3
DES 0010	Industrial and Civil Applications of Computer-Aided Design	3
DES 0020	Architectural Drawing I	3
DES 0021	Architectural Drawing II	3
DES 0022	Architectural Drawing III-BIM (Building Information Modeling)	3
DES 0040	Managing the Computer-Aided Design (CAD) Environment	3

DES 0095	Internship in Drafting and Engineering Support	0.5-4
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Total Units 21.5-25

Recommended Electives

CET 0020	Foundations and Framing	3
CET 0022	Introduction to Energy Efficiency Construction	3
CET 0024	Fundamentals of Construction Documents and Estimating	3
CET 0032	Residential Building Codes	3
ENGR 0010	Engineering Survey Measurements	4

Drafting and Engineering Support—Mechanical/Civil Concentration

AA or AS Degree and/or Certificate of Achievement

(formerly Engineering Support Technology—Mechanical/Civil Concentration)

Successful completion of the curriculum in Drafting and Engineering Support—Mechanical/Civil Concentration 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

DES 0001	Technical Drafting I	3
DES 0002	Technical Drafting II	3
DES 0010	Industrial and Civil Applications of Computer-Aided Design	3
DES 0011	Three-Dimensional Modeling	3
DES 0020	Architectural Drawing I	3
DES 0021	Architectural Drawing II	3
DES 0040	Managing the Computer-Aided Design (CAD) Environment	3
DES 0095	Internship in Drafting and Engineering Support	0.5-4

Total Units 21.5-25

Recommended Electives

ENGR 0010	Engineering Survey Measurements	4
WELD 0020	Introduction to Welding Technology - Career Path	3

Architectural 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 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

DES 0020	Architectural Drawing I	3
DES 0021	Architectural Drawing II	3
DES 0022	Architectural Drawing III-BIM (Building Information Modeling)	3
DES 0010	Industrial and Civil Applications of Computer-Aided Design	3
or CET 0022	Introduction to Energy Efficiency Construction	

Total Units 12

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

DES 0001	Technical Drafting I	3
DES 0002	Technical Drafting II	3
DES 0020	Architectural Drawing I	3
DES 0021	Architectural Drawing II	3

Total Units 12

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

DES 0001	Technical Drafting I	3
DES 0002	Technical Drafting II	3
DES 0012	Geometric Dimensioning and Tolerancing	3
DES 0011	Three-Dimensional Modeling	3
or ENGR 0022B	Descriptive Geometry and Solid Modeling	

Total Units 12

Courses

Understanding course descriptions (p. 268)

DES 0001. Technical Drafting I*Units: 3*

Formerly known as EST 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 working drawings that are used for product definition. Introduction to product and process definition as specified by engineering design disciplines. Designed for students with no previous experience in engineering design/drafting. (CSU)

DES 0002. Technical Drafting II*Units: 3*

Formerly known as EST 2

Prerequisite: Completion of DES 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. Designed for students who have attained a fundamental knowledge of the processes and practices of engineering design/drafting. (CSU)

DES 0005. Computer-Aided Drafting IA*Units: 3*

Formerly known as EST 5

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
 Introduction to the use of computer-aided drafting/design systems to include hardware and software. Emphasis on the production of two-dimensional working drawings. Designed for disciplines that require computer-aided drafting skill sets, such as architectural studies, mechanical engineering, civil engineering, landscape, fashion, interior design, technical theater, and geographical information systems (GIS). (CSU)

DES 0006. Computer-Aided Drafting IB*Units: 3*

Formerly known as EST 6

Prerequisite: Completion of DES 5 with grade of "C" or better; or completion of DES 1 and 2 with grades of "C" or better; or equivalent as determined by instructor

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
 Continuation of DES 5. Application of advanced computer-aided drafting (CAD) features to produce 2D and 3D working drawings. Emphasis on attribute extraction, data interchange file (DXF), file translation, and external referencing. Introduction to wire-frame, surface and solid modeling. (CSU)

DES 0010. Industrial and Civil Applications of Computer-Aided Design*Units: 3*

Formerly known as EST 10

Prerequisite: Completion of DES 2 or 20 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 surveying 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)

DES 0011. Three-Dimensional Modeling*Units: 3*

Formerly known as EST 11

Prerequisite: Completion of DES 1 and 2 with grades 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 part and assembly modeling, and the development of 2-dimensional part and assembly drawings. SolidWorks is the solid modeler used. (CSU, UC)

DES 0012. Geometric Dimensioning and Tolerancing*Units: 3*

Formerly known as EST 12

Prerequisite: Completion of DES 2 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 Y14.5-2009 Standard, 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)

DES 0020. Architectural Drawing I*Units: 3*

Formerly known as EST 20

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
 Introduction to the fundamentals of residential construction and its design. Drawings of a residence are developed and detailed, to include sketches, plot and floor plans, foundation, elevations, schedules, framing, electrical, plumbing, and section views. AutoCAD instruction is incorporated to develop CAD drawings and electronic data sets. (CSU)

DES 0021. Architectural Drawing II*Units: 3*

Formerly known as EST 21

Prerequisite: Completion of DES 20 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 residential design started in DES 20 to include major detailing to conform to the current industry building codes. Drawings to include fireplaces, stairs, interiors, mechanical specifications, Title 24, a two-point perspective drawing and renderings. Basic introduction to Building Information Modeling. (CSU)

DES 0022. Architectural Drawing III-BIM (Building Information Modeling)*Units: 3*

Prerequisite: Completion of DES 21 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 DES 20 and 21. 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)

DES 0028. Independent Study*Units: 1-3*

Formerly known as EST 28

Designed for students interested in furthering their knowledge at an independent study level. 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)

DES 0040. Managing the Computer-Aided Design (CAD) Environment*Units: 3*

Formerly known as EST 40

Prerequisite: Completion of DES 10, 11 or 22 with grade of "C" or better, or equivalent as determined by instructor

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)

Designed for the advanced Engineering Support and Drafting 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)

DES 0095. Internship in Drafting and Engineering Support*Units: 0.5-4*

Formerly known as EST 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. 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 computer aided drafting practices that conform to business and industry CAD standards.
- Demonstrate a working knowledge of the design process and the importance of concurrent engineering principles.
- Apply appropriate, current and relevant industry standards in preparing technical documentation for the appropriate discipline of their study.
- Develop complete working drawings in discipline of study for use in manufacturing/building application.

Drama**Contact Information****Division**

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

The Drama 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 Drama are available in the Counseling Center. In all cases, students should consult with a counselor for specific transfer requirements. Four-year graduates in Drama are qualified for positions in teaching, community theater, television, motion pictures and professional theatre.

Faculty**Scott Adams****Assistant Professor, Drama**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Debra Hammond**Professor, Drama**

B.A., California State University, Sacramento

M.F.A., University of California, Los Angeles

Liaison Counselors

Brian Gosney, Tonya Times

Degrees/Certificates**Associate Degree for Transfer**

- Theatre Arts for Transfer (p. 107)

Associate Degree

- Theater Arts (p. 108)

Skills Certificates

- Stagecraft (p. 108)
- Costuming (p. 109)

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 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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

DRMA 0010A	Fundamentals of Acting	3
DRMA 0013	Introduction to Theater	3
Select 4 units from the following:		4
DRMA 0022A	Production Crew I	
DRMA 0022B	Production Crew II	
DRMA 0022C	Production Crew III	
DRMA 0022D	Production Crew IV	
DRMA 0023A	Rehearsal and Performance - Cast I	
DRMA 0023B	Rehearsal and Performance - Cast II	
DRMA 0023C	Rehearsal and Performance - Cast III	
DRMA 0023D	Rehearsal and Performance - Cast IV	
Select 9-10 units from the following:		9-10
DRMA 0010B	Advanced Acting	
DRMA 0014	Stagecraft	
DRMA 0015	Stage Lighting	
DRMA 0017	Stage Makeup	
DRMA 0021	Script Analysis	
DRMA 0022A	Production Crew I ¹	
DRMA 0022B	Production Crew II ¹	
DRMA 0022C	Production Crew III ¹	
DRMA 0022D	Production Crew IV ¹	
DRMA 0023A	Rehearsal and Performance - Cast I ¹	
DRMA 0023B	Rehearsal and Performance - Cast II ¹	
DRMA 0023C	Rehearsal and Performance - Cast III ¹	
DRMA 0023D	Rehearsal and Performance - Cast IV ¹	
Total Units		19-20

¹ A maximum of 4 units from DRMA 0022A-D and DRMA 0023A-D may be used toward the "Select 9-10 from the following" area. The same course cannot be used in both the "Select 4 units" and the "Select 9-10 units" areas.

Theater Arts

AA Degree

The Theater Arts Program prepares students for future professional employment, upper division study in the theatrical arts and participation in the theater and entertainment community. Classes in theater 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 theater 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

DRMA 0010A	Fundamentals of Acting	3
DRMA 0013	Introduction to Theater	3
DRMA 0014	Stagecraft	3
DRMA 0015	Stage Lighting	3
Select 4 units from the following:		4
DRMA 0022A	Production Crew I	
DRMA 0022B	Production Crew II	
DRMA 0022C	Production Crew III	
DRMA 0022D	Production Crew IV	
DRMA 0023A	Rehearsal and Performance - Cast I	
DRMA 0023B	Rehearsal and Performance - Cast II	
DRMA 0023C	Rehearsal and Performance - Cast III	
DRMA 0023D	Rehearsal and Performance - Cast IV	
Select 9 units from the following:		9
DRMA 0010B	Advanced Acting	
DRMA 0011	Stage Movement	
DRMA 0016A	Costume History	
DRMA 0016B	Costume Construction	
DRMA 0017	Stage Makeup	
DRMA 0019A	Stage Properties	
DRMA 0019B	Scenic Painting	
DRMA 0020	Play, Performance, and Perception	
DRMA 0021	Script Analysis	
DRMA 0028	Independent Study	

Total Units **25**

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

DRMA 0014	Stagecraft	3
DRMA 0015	Stage Lighting	3
DRMA 0019A	Stage Properties	3
or DRMA 0019B	Scenic Painting	
DRMA 0028	Independent Study	1-2

or DRMA 0095 Internship in Drama

Select 4 units from the following: 4

DRMA 0022A	Production Crew I	
DRMA 0022B	Production Crew II	
DRMA 0022C	Production Crew III	
DRMA 0022D	Production Crew IV	
DRMA 0023A	Rehearsal and Performance - Cast I	
DRMA 0023B	Rehearsal and Performance - Cast II	
DRMA 0023C	Rehearsal and Performance - Cast III	
DRMA 0023D	Rehearsal and Performance - Cast IV	

Total Units 14-15

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

DRMA 0016A	Costume History	3
DRMA 0016B	Costume Construction	3
DRMA 0017	Stage Makeup	3
DRMA 0028	Independent Study	1-2
or DRMA 0095	Internship in Drama	

Select 4 units from the following: 4

DRMA 0022A	Production Crew I	
DRMA 0022B	Production Crew II	
DRMA 0022C	Production Crew III	
DRMA 0022D	Production Crew IV	
DRMA 0023A	Rehearsal and Performance - Cast I	
DRMA 0023B	Rehearsal and Performance - Cast II	
DRMA 0023C	Rehearsal and Performance - Cast III	
DRMA 0023D	Rehearsal and Performance - Cast IV	

Total Units 14-15

Courses

Understanding course descriptions (p. 268)

DRMA 0010A. Fundamentals of Acting

Units: 3

Hours: 54 lecture

Analysis and practice of acting techniques: interpretation, pantomime, and oral expression. Characterization through improvisation and selected scenes. (C-ID THTR 151) (CSU, UC)

DRMA 0010B. Advanced Acting

Units: 3

Prerequisite: Completion of DRMA 10A with grade of "C" or better

Hours: 54 lecture

Analysis and practice in major styles of acting with particular emphasis on the realistic convention. Activities include one or more acting projects, monologues, scenes, and participation in a play. (C-ID THTR 152) (CSU, UC)

DRMA 0011. Stage Movement

Units: 3

Hours: 54 lecture

Analysis and practice of movement styles used in the theater; basic movement, control, relaxation, and interpretation. Character development through physical exploration and scene study. (CSU, UC)

DRMA 0013. Introduction to Theater

Units: 3

Hours: 54 lecture

Focuses on the relationship of theater to various cultures throughout history and the contributions of significant individual artists. A study of procedures, production processes and practices, performances and social impact in the major periods, styles, and genres of theater. Introduces playwriting, acting, directing, design, and criticism. Designed for both majors and non-majors interested in acquiring a critical understanding and appreciation of theater as a performing art. Required theater production attendance. (C-ID THTR 111) (CSU, UC)

DRMA 0014. Stagecraft

Units: 3

Hours: 90 (18 lecture, 72 activity)

Set construction including tools and hardware, painting, and techniques of construction, mounting and shifting stage scenery. Theater architecture, rigging, and machinery. (C-ID THTR 171) (CSU, UC)

DRMA 0015. Stage Lighting

Units: 3

Hours: 90 (18 lecture, 72 activity)

Basic execution of theatrical lighting. Study of design principles, electrical principles, lighting instruments, and control equipment. (C-ID THTR 173) (CSU, UC)

DRMA 0016A. Costume History

Units: 3

Hours: 54 lecture

Costumes from Greek period to the present. Emphasis on the use of historical costumes for the stage. Costume design project for period play. Designed for both theater majors and non-majors who are interested in acquiring an appreciation and terminology of apparel through history. Students may begin with either 16A or 16B. (CSU, UC)

DRMA 0016B. Costume Construction

Units: 3

Hours: 90 (18 lecture, 72 activity)

Study and implementation of stage costume construction techniques, from pattern drafting and fabric selection to sewing, serging, fitting, draping, and dyeing. Students may begin with either 16A or 16B. (CSU, UC)

DRMA 0017. Stage Makeup

Units: 3

Hours: 90 (18 lecture, 72 activity)

Theory and practical application of stage makeup and prosthetics, including crew work on major productions. Discussion and critique of student projects. (C-ID THTR 175) (CSU, UC)

DRMA 0019A. Stage Properties

Units: 3

Hours: 90 (18 lecture, 72 activity)

Study of stage properties including locating and procuring props. Implementation of construction techniques; use and examination of common, unusual and specialized materials. Includes period research for prop implementation and identification. (CSU, UC)

DRMA 0019B. Scenic Painting*Units: 3*

Hours: 90 (18 lecture, 72 activity)

Scenic painting including mixing and matching paints, painting practices and standards. Implementation of painting techniques; use and theory of common, specialized, and experimental materials and tools. (CSU, UC)

DRMA 0020. Play, Performance, and Perception*Units: 3*

Hours: 54 lecture

Read and attend theater performances presented throughout the region. Pre-performance analysis and post-performance critiques and discussion with emphasis on production. Geared for both theater majors and non-majors interested in the theater performance experience. (CSU, UC)

DRMA 0021. Script Analysis*Units: 3*

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)

DRMA 0022A. Production Crew I*Units: 2*

Formerly known as DRMA 12A

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)

DRMA 0022B. Production Crew II*Units: 2*

Prerequisite: Completion of DRMA 22A with grade of "C" or better

Hours: 80 activity

Participation 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)

DRMA 0022C. Production Crew III*Units: 2*

Prerequisite: Completion of DRMA 22B with grade of "C" or better

Hours: 80 activity

Participation 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)

DRMA 0022D. Production Crew IV*Units: 2*

Prerequisite: Completion of DRMA 22C with grade of "C" or better

Hours: 80 activity

Participation in a college production in 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)

DRMA 0023A. Rehearsal and Performance - Cast I*Units: 2*

Formerly known as DRMA 12B

Hours: 80 activity

Provides an opportunity for students to participate in a college production as a performing ensemble member of the cast. Students develop fundamental rehearsal and performance techniques. All actors are required to audition for roles. (C-ID THTR 191) (CSU, UC)

DRMA 0023B. Rehearsal and Performance - Cast II*Units: 2*

Prerequisite: Completion of DRMA 23A with grade of "C" or better

Hours: 80 activity

Enables students to participate in a college production as a principal performing member of the cast. Students investigate increasingly sophisticated ensemble and performance techniques as well as develop more advanced approaches to script analysis and characterization. A successful audition is required. (C-ID THTR 191) (CSU, UC)

DRMA 0023C. Rehearsal and Performance - Cast III*Units: 2*

Prerequisite: Completion of DRMA 23B with grade of "C" or better

Hours: 80 activity

Allows students to perform in a college production in a demanding principal role. Students apply increasingly advanced rehearsal and performance techniques to the study of characters of great complexity and depth. A successful audition is required. (C-ID THTR 191) (CSU, UC)

DRMA 0023D. Rehearsal and Performance - Cast IV*Units: 2*

Prerequisite: Completion of DRMA 23C with grade of "C" or better

Hours: 80 activity

Provides an opportunity for student actors to explore specific stylistic performance challenges, such as poetic text, operatic or musical roles, non-realistic performance styles, circus skills, mask work and others. Students apply these advanced performance techniques as a principal actor in an appropriate college production. A successful audition is required. (C-ID THTR 191) (CSU, UC)

DRMA 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)

DRMA 0095. Internship in Drama*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. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

DRMA 0809. Selected Topics in Film Studies*Units: 0*

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)

- Analyze texts from a performance point of view.
- Collaborate harmoniously and effectively with others as a well-prepared member of the team.
- Communicate clearly and coherently in oral and written forms.
- Participate effectively in a theatrical production.
- Identify and recall the historical development, common practices, and terminology of Western theatre.

Earth Science

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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

Alejandro Amigo**Professor, Earth Science**

M.S., University of Buenos Aires

Ph.D., University of Florida

M.A., University of California, Davis

Frank DeCourten**Professor, Earth Science**

B.S., University of California, Riverside

M.S., University of California, Riverside

Holly Dodson**Professor, Earth Science**

B.S., University of California, Riverside

M.A., University of California, Santa Barbara

Richard Hilton**Professor, Earth Science**

A.S., College of Marin

B.A., California State University, Chico

M.A., California State University, Chico

Liaison Counselors

Marcia Braga, Catherine Morris

Degrees/Certificates

Associate Degree for Transfer

- Geology for Transfer (p. 111)

Associate Degree

- Geology (p. 112)

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

- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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.

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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 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 & PHYS 0011	Basic Concepts in Physics and Physical Science 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 0014	Natural Disasters	
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 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. 268)

ESCI 0001. Physical Geology

Units: 3

Formerly known as GEOL 1

Prerequisite: Eligibility for ENGL 1A

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

Corequisite: Concurrent enrollment in ESCI 3

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 1A

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 current strategies for mitigation and adaptation to changing climate predictions, including future alternative energy sources. (CSU, UC)

ESCI 0010. Introduction to Earth Science

Units: 3

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to concepts of geology, oceanography, meteorology, and astronomy for science or nonscience 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 0014. Natural Disasters

Units: 3

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Analysis of the principles underlying natural disasters such as earthquakes, volcanic eruptions, landslides, floods, severe weather, fires and their impact on the environment and human populations. (CSU, UC)

ESCI 0015. Introduction to Oceanography

Units: 3

Advisory: Eligibility for ENGL 1A 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: 1-4*

Also known as BIOL 16G

Formerly known as GEOL 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/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. Students may be required to provide their own transportation. (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)

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. Entrance and transportation fees may be required. (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. Entrance and transportation fees may be required. (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. Entrance and transportation fees may be required. (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 and transportation fees may be 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 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 0095. Internship in Earth Science*Units: 0.5-4*

Formerly known as GEOL 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. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

ESCI 0301. Geology, Oceanography and Meteorology of Costa Rica*Units: 1-4*

Hours: As scheduled for the appropriate combination of lecture/laboratory hours

The new world (American) tropics are referred to as the neotropics. This is a survey course covering the basics in neotropical natural history including general life zones of Costa Rica (specifically), and their geologic history. Includes general physical processes of Costa Rica geology and geography. (CSU)

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 severe weather events.

Economics

Contact Information

Division
Liberal Arts

Dean
Rebecca Bocchicchio

Associate Deans
Anne Fleischmann, Susan Lucyga

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 Spencer
Professor, Economics
A.A., Sierra College
A.S., Sierra College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Liaison Counselors

Brian Gosney, Reyes Ortega

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
MATH 0013	Elementary Statistics	4
MATH 0042	Business Calculus (OR)	4-8
or MATH 0030 & MATH 0031	Analytical Geometry and Calculus I and Analytical Geometry and Calculus II	
Select 3-6 units from the following:		3-6
BUS 0001 & BUS 0002	Financial Accounting I and Financial Accounting II	
BUS 0003	Managerial Accounting	
BUS 0048	Business Law	
CIS 0062	Business Information Systems	
CSCI 0010	Introduction to Computing	
CSCI 0027	Visual Basic .NET Programming I	
MATH 0016A	Calculus for Social and Life Sciences	
MATH 0016B	Calculus for Social and Life Sciences	
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		20-28

Courses

Understanding course descriptions (p. 268)

ECON 0001A. Principles of Macroeconomics

Units: 3

Prerequisite: Eligibility for ENGL 50 or ENGL N; 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: Eligibility for ENGL 50 or ENGL N; 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**

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, 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.

Liaison Counselor

Nancy Martinis

Degrees/Certificates**Associate Degree for Transfer**

- Elementary Teacher Education for Transfer (p. 116)

Associate Degree

- Liberal Studies - Elementary Education (p. 116)

Elementary Teacher Education for Transfer**AA-T 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:

- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

BIOL 0011	Concepts of Biology (OR)	4
or BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
CHEM 0002A	Introduction to Chemistry I	5
COMM 0001	Fundamentals of Public Speaking	3
EDU 0010	Introduction to Elementary Education with Field Experience	3
ENGL 0001A	Introduction to Composition	3
ENGL 0001B	Critical Thinking and Writing about Literature	3
ENGL 0001C	Critical Thinking and Writing across the Curriculum	3
ESCI 0010	Introduction to Earth Science	3
ESCI 0010L	Introduction to Earth Science Laboratory	1
GEOG 0005	World Regional Geography	3
HDEV 0009	Child and Adolescent Development	3
HIST 0017A	History of the United States to 1877	3
HIST 0050	World History to 1500	3
MATH 0017	Concepts of Mathematics	3
PHYS 0010	Basic Concepts in Physics	3
PHYS 0011	Physical Science Laboratory	1
POLS 0001	American Government	3
Select 3 units from the following:		3
ARHI 0101	Art Appreciation	
DRMA 0013	Introduction to Theater	
MUS 0002	Music Appreciation	

Total Units**53****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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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 Education 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 and Adolescent Development
POLS 0001	American Government

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 across the Curriculum
ENGL 0002	Structure of English
COMM 0005	Communication Experience
MATH 0017	Concepts of Mathematics

Total Units 22

Courses

Understanding course descriptions (p. 268)

EDU 0007. Tutoring Elementary Students in Reading

Units: 3

Also known as ENGL 7

Prerequisite: Eligibility for ENGL 11 or completion of ENGL 1A 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 1A

Hours: 90 (36 lecture, 54 laboratory)

Introduction to the concepts and issues related to teaching diverse learners in today's contemporary schools, K-12. 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. 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

Sciences and Mathematics

Dean

Heather Roberts

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 Pattengale

Professor, Engineering

A.A., Fresno City College

B.S., California Polytechnic State University, San Luis Obispo

M.S., California State University, Sacramento

Liaison Counselors

Cheryl Axton, Brian Gosney, Reyes Ortega

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. 118)

Certificates of Achievement

- Civil Engineering Technology (p. 118)
- General Engineering Technology (p. 119)

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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 0035	Statics	3
ENGR 0045	Materials Science	3
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 0017	Introduction to Circuit Theory	
ENGR 0017L	Circuit Theory Laboratory	
ENGR 0022A	Engineering Drawing and CAD	
ENGR 0022B	Descriptive Geometry and Solid Modeling	
ENGR 0095	Internship in Engineering (up to 4 units)	
ENGR 0150	Introduction to the Engineering Profession	
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

33-34

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

CHEM 0001A	General Chemistry I (OR)	5-6
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or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CIS 0050	Applying Computer Software	3
ENGR 0010	Engineering Survey Measurements	4
ENGR 0022A	Engineering Drawing and CAD	3
ENGR 0150	Introduction to the Engineering Profession	1
MATH 0008	Trigonometry	4
MECH 0010	Fundamentals of Electronics	4
Select one of the following physics course combinations:		5

PHYS 0105 General Physics I
& 0105L and General Physics I Laboratory

PHYS 0205 Principles of Physics: Mechanics
& 0205L and Principles of Physics Laboratory:
Mechanics

Select 3-5 units from the following: 3-5

ENGR 0022B Descriptive Geometry and Solid Modeling

ENGR 0037 Manufacturing Processes

GEOG 0090 Introduction to Geographic Information
Systems (GIS)

PHYS 0110 General Physics II
& 0110L and General Physics II Laboratory

PHYS 0210 Principles of Physics: Electricity and
& 0210L Magnetism
and Principles of Physics Laboratory:
Electricity and Magnetism

Total Units 32-35

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

CHEM 0001A	General Chemistry I (OR)	5-6
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CIS 0050	Applying Computer Software	3
ENGR 0022A	Engineering Drawing and CAD	3
ENGR 0150	Introduction to the Engineering Profession	1
MATH 0008	Trigonometry	4
MECH 0010	Fundamentals of Electronics	4
Select one of the following physics course combinations:		5

PHYS 0105 General Physics I
& 0105L and General Physics I Laboratory

PHYS 0205 Principles of Physics: Mechanics
& 0205L and Principles of Physics Laboratory:
Mechanics

Select 6-10 units from the following: 6-10

CHEM 0001B General Chemistry II

ENGR 0022B Descriptive Geometry and Solid Modeling

ENGR 0037 Manufacturing Processes

MATH 0029 Pre-Calculus Mathematics

PHYS 0110 General Physics II
& 0110L and General Physics II Laboratory

PHYS 0210 Principles of Physics: Electricity and
& 0210L Magnetism
and Principles of Physics Laboratory:
Electricity and Magnetism

Total Units 31-36

Courses

Understanding course descriptions (p. 268)

ENGR 0010. Engineering Survey Measurements

Units: 4

Prerequisite: Completion of MATH 8 or equivalent with grade of "C" or better

Advisory: Completion of or concurrent enrollment in ENGR 22A

Hours: 108 (54 lecture, 54 laboratory)

Theory and practice with total stations (with and without data collectors), leveling instruments, and tapes. Creation of a boundary and topographic survey requiring traverse adjustment and area within irregular boundaries. Mock construction project requiring a construction survey including field staking. Problems including horizontal and vertical curves, slopes and alignments, cut and fill, topographic maps and volume calculation. Introduction to GPS. Designed for engineering students and required for Civil Engineering majors. (CSU, UC)

ENGR 0017. Introduction to Circuit Theory

Units: 3

Prerequisite: Completion of MATH 32 and PHYS 4B with grades of "C" or better; completion with grade of "C" or better or concurrent enrollment in MATH 33

Hours: 54 lecture

Introduction to circuit analysis. Includes all basic, passive circuit elements and operational amplifiers. Topics covered: constant and time variant circuit networks; network analysis and simplification techniques; response of circuit networks, natural and forced; steady state sinusoidal circuit analysis development from the network differential equations; power calculations; analysis involving operational amplifiers. (CSU, UC)

ENGR 0017L. Circuit Theory Laboratory

Unit: 1

Prerequisite: Completion with grade of "C" or better, or concurrent enrollment in ENGR 17

Hours: 54 laboratory

Designed to parallel ENGR 17. Experimental verification of circuit analysis concepts. Laboratory exercises include DC, transient and AC measurements on circuits including resistors, capacitors, inductors and operational amplifiers. Basic electrical instrumentation is used. (CSU, UC)

ENGR 0022A. Engineering Drawing and CAD

Units: 3

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)
Introduction to the graphical methods, equipment and software used to produce and interpret engineering drawings. Fundamentals of technical drawing including sketching, geometric constructions, orthographic projection, dimensioning, sectional views, auxiliary views, threads and fasteners, and pictorial projection. Emphasis on the production of two-dimensional working drawings utilizing freehand sketching and computer-aided (CAD) hardware and software. (CSU)

ENGR 0022B. Descriptive Geometry and Solid Modeling*Units: 3*

Formerly known as ENGR 23

Prerequisite: Completion of ENGR 22A or DES 1 and 2 with grade(s) of "C" or better

Hours: 90 (36 lecture; 54 laboratory which may be scheduled TBA)

Fundamental principles of descriptive geometry with application to technical drawing and engineering problems. Visualizing spatial relationships from orthographic drawings. Includes sketches and computer-aided drafting (CAD) projects. Includes an introduction to solid modeling including part and assembly modeling. Designed for Engineering and Drafting and Engineering Support majors. (CSU, UC)

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 0035. Statics*Units: 3*

Prerequisite: Completion of PHYS 4A or equivalent

Advisory: Completion of ENGR 22A or 22B

Hours: 54 lecture

Force systems and equilibrium conditions applied to engineering problems. Includes graphical solutions and diagrams to aid analytical solutions. Information on analytical mechanics, development of skills to analyze and solve problems in statics encountered in engineering work. (CSU, UC)

ENGR 0037. Manufacturing Processes*Units: 3*

Advisory: Completion of ENGR 22A 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 product. Introduction to design and documentation of a final product. Manufacturing processes in the areas of forming, joining, material removal, casting, assembly and prototyping which includes hands on use of manufacturing equipment. Each student will fabricate a final project based on principles of manufacturing. (CSU, UC)

ENGR 0045. Materials Science*Units: 3*

Prerequisite: CHEM 1A (may be taken concurrently) and completion of PHYS 4A or equivalent

Hours: 90 (36 lecture, 54 laboratory)

Basic principles of physical and chemical behavior of metals, polymers, composites and ceramics in engineering applications; topics include bonding, crystalline structure and imperfections, diffusion, kinetics, phase diagrams, corrosion, and electrical properties. Laboratory experiments analyze actual behavior of materials; topics include metallography, mechanical properties of metals and heat treatment. (CSU, UC)

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. 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 0150. Introduction to the Engineering Profession*Unit: 1*

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 participating in engineering activities. (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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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.

Faculty

Barry Abrams**Professor, English**

B.A., Claremont McKenna College

M.A., University of California, Los Angeles

Ph.D., University of California, Los Angeles

Alfred Batchelder

Professor, English

B.A., California State University, Sacramento
M.A., California State University, Sacramento

Joshua Breese

Professor, English

B.A., Humboldt State University
M.A., California State University, Sacramento

Nathan Conkle

Professor, English

B.A., San Francisco State University
M.A., San Francisco State University
Ed.D., California State University, Sacramento

Ivor Cooper

Professor, English

B.A., Newbold College
M.A., Loma Linda University

Carol Eisenhower

Professor, English

B.A., University of California, Los Angeles
M.A., California State University, Sacramento

Beth Ervin

Professor, English

B.A., San Diego State University
M.A., San Francisco State University

Kent Fortin

Professor, English

B.A., Western Washington University
M.F.A., University of Washington, Seattle

Laurel Gardner

Professor, English

A.B., Stanford University
M.A., San Jose State University
Ph.D., University of South Carolina, Columbia

Jane Hemmerling

Professor, English

B.A., California State University, Sacramento
M.A., California State University, Sacramento
M.A., California State University, Sacramento

Michelle Johnson

Professor, English

B.A., California State University, Sacramento
M.A., California State University, Sacramento

Susan Johnson

Professor, English

B.A., Indiana State University
M.A., Indiana State University

Patricia Lord

Professor, English/Women and Gender Studies

B.A., California State University, Chico
M.A., California State University, Chico

Paul Macias

Professor, English

B.A., University of Montana
B.A., University of Montana
M.A., California State University, Sacramento

Barbara Nelson-Burns

Professor, English

B.A., Arizona State University
M.F.A., Arizona State University

Andrea Neptune

Professor, English

B.A., California State University, Sacramento
M.A., California State University, Sacramento
M.A., California State University, Dominguez Hills

Rebecca Quinn

Professor, English

B.A., University of Massachusetts
M.A., University of New Hampshire
M.Phil., City University of New York

Jason Roberts

Professor, English

B.A., California State University, Long Beach
M.A., University of Tulsa

Lisa Rochford

Professor, English

B.A., San Francisco State University
M.A., San Francisco State University

Robert Roden

Professor, English

B.A., California State University, Long Beach
M.F.A., California State University, Long Beach

Kimberly Schaefer

Professor, English

B.A., University of Southern California
M.A., University of California, Santa Cruz

Martine Shelley

Professor, English

B.S., University of Oregon
M.S., San Francisco State University

Lynette Vrooman

Professor, English

B.A., California State University, Sacramento
M.A., California State University, Sacramento

Liaison Counselors

Cheryl Axton, Paul Neal

Degrees/Certificates

Associate Degree for Transfer

- English for Transfer (p. 122)

Associate Degree

- English (p. 122)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

ENGL 0001B	Critical Thinking and Writing about Literature	3
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ENGL 0001C	Critical Thinking and Writing across the Curriculum	3
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Select 3 units from the following:		3
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ENGL 0030A	American Literature - Beginnings through Civil War	
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ENGL 0030B	American Literature - Civil War to the Present	
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Select 3 units from the following:		3
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ENGL 0046A	English Literature	
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ENGL 0046B	English Literature	
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Select 6 units from the following courses or unused courses from above:		6
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ENGL 0019	Introduction to Creative Writing	
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ENGL 0029	Introduction to Drama as Literature	
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ENGL 0032	Introduction to Poetry	
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ENGL 0034	Introduction to the Novel	
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ENGL 0047A	World Literature	
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ENGL 0047B	World Literature	
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Select 3 units from the following courses or unused courses from above:		3
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ENGL 0020	Creative Writing (Poetry)	
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ENGL 0021	Creative Writing (Fiction)	
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ENGL 0024	Introduction to Literary Criticism and Critical Concepts	
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ENGL 0033	Introduction to Shakespeare (The Drama)	
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ENGL 0040	The Filmed Novel	
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ENGL 0048	Literature of Science Fiction	
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Total Units		21
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English

AA Degree

The English major is awarded for concentrated study in English with an emphasis on literature. Successful completion of the curriculum in English will prepare students for transfer to four-year colleges or universities. The major has been designed to meet lower-division requirements for English majors at most transfer institutions. Students should choose the emphasis or track 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

ENGL 0001B	Critical Thinking and Writing about Literature	3
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Select 3 units from the following:		3
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ENGL 0030A	American Literature - Beginnings through Civil War	
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ENGL 0030B	American Literature - Civil War to the Present	
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Select 3 units from the following:		3
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ENGL 0046A	English Literature	
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ENGL 0046B	English Literature	
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Select 3 units from the following:		3
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ENGL 0029	Introduction to Drama as Literature	
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ENGL 0032	Introduction to Poetry	
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ENGL 0034	Introduction to the Novel	
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ENGL 0035	Introduction to the Short Story	
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Select 9 units from the following courses or unused courses from above:		9
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ENGL 0018	Creative Writing (Non-Fiction)	
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ENGL 0019	Introduction to Creative Writing	
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ENGL 0020	Creative Writing (Poetry)	
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ENGL 0021	Creative Writing (Fiction)	
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ENGL 0022	Creative Publication	
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ENGL 0024	Introduction to Literary Criticism and Critical Concepts
ENGL 0027	Literature by Women
ENGL 0033	Introduction to Shakespeare (The Drama)
ENGL 0037	American Film Masterpieces
ENGL 0038	International Film Masterpieces
ENGL 0040	The Filmed Novel
ENGL 0041	The Documentary Film: Argumentative Discourse
ENGL 0042	The Documentary Film
ENGL 0047A	World Literature
ENGL 0047B	World Literature
ENGL 0048	Literature of Science Fiction
HUM 0020	Introduction to the Hebrew Bible
HUM 0021	Introduction to the New Testament
Total Units	21

Courses

Understanding course descriptions (p. 268)

ENGL 0000A. Mechanics and Basic Composition

Units: 3

Prerequisite: Completion of ENGL 501 or 571 with grade of "C" or better, or placement by matriculation assessment process

Hours: 54 lecture

Reviews essay organization and development, sentence structure, usage, punctuation, and mechanics. Includes writing a variety of paragraphs, essays and other assignments to a minimum of 4,000 words. A departmental proficiency essay exam is required for successful completion. For students who need review to become eligible for ENGL 1A. Not open to students who have completed ENGL N. (not transferable)

ENGL 0000N. Integrated Reading and Composition

Units: 6

Prerequisite: Completion of ENGL 501, 570 and 570L with grades of "C" or better, or placement by matriculation assessment process

Hours: 108 lecture

Introduction to college level reading and writing, emphasizing them as interrelated processes. Focuses on strategies to improve comprehension, including vocabulary development, textual analysis, analysis of main ideas, tone, bias, inference. Reviews essay organization and development, sentence structure, usage, punctuation, mechanics. Includes reading and writing a variety of paragraphs and essays. Departmental proficiency essay exam required for successful completion. Course equivalent to ENGL A, ENGL 50 and ENGL 50L, combined. Not open to students who have completed ENGL A, 50 and/or 50L. (not transferable)

ENGL 0001A. Introduction to Composition

Units: 3

Prerequisite: Placement by matriculation assessment process OR completion of ENGL A, ENGL N, ESL 30C or ESL 30W with grade of "C" or better

Hours: 54 lecture

Writing, reading and critical thinking skills necessary for successful completion of a four-year college program. Includes reading, discussion, and analysis of selected non-fiction texts. Writing assignments (6,500 words of formal writing) teach students to summarize, explain, analyze, synthesize, and organize information logically and to propose and defend original ideas. Instruction in research, MLA documentation and completion of a fully-documented paper using multiple sources. (C-ID ENGL 100) (CSU, UC)

ENGL 0001B. Critical Thinking and Writing about Literature

Units: 3

Prerequisite: Completion of ENGL 1A 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 0001C. Critical Thinking and Writing across the Curriculum

Units: 3

Prerequisite: Completion of ENGL 1A with grade of "C" or better

Hours: 54 lecture

Develops critical thinking, reading, and writing skills as they apply to textual analysis of primary and secondary sources, essays, articles, and book-length works from a range of academic and cultural contexts. Emphasis on the techniques and principles of effective written argument in research-based writing across the curriculum. Requires 6,500 words of formal writing. (C-ID ENGL 105) (CSU, UC)

ENGL 0002. Structure of English

Units: 3

Prerequisite: Completion of ENGL 1A 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 0007. Tutoring Elementary Students in Reading

Units: 3

Also known as EDU 7

Prerequisite: Eligibility for ENGL 11 or completion of ENGL 1A 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)

ENGL 0011. Analytical and Critical Thinking in Reading*Units: 3*

Prerequisite: Placement by matriculation assessment process OR completion of ENGL 50/50L or ENGL N with grade(s) of "C" or better

Advisory: Eligibility for ENGL 1A

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 1A

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 1A

Hours: 54 lecture

Introduction to and critical analysis of selected LGBTIQ (Lesbian, Gay, Bisexual, Transgender, Intersex, Queer) texts over a range of historical periods and genres, including the essay, poetry, autobiography, short fiction, novel, drama, and graphic novel. (CSU, UC)

ENGL 0018. Creative Writing (Non-Fiction)*Units: 3*

Prerequisite: Eligibility for ENGL 1A

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 1A

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 1A

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 1A

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 1A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Technique and experience in editing the college literary journal. Writing, selecting, and editing manuscripts and graphics, discussing and designing layout, and processing copy for all printing will be emphasized. Provides experience in marketing, distribution, and other matters related to production management. Production occurs only in the spring semester. (CSU)

ENGL 0024. Introduction to Literary Criticism and Critical Concepts*Units: 3*

Prerequisite: Eligibility for ENGL 1A

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. (CSU, UC)

ENGL 0027. Literature by Women*Units: 3*

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Critical analysis and historical survey of selected works by women from Middle Ages to the present. Emphasizes British and American cultural foundations and literary traditions to further examine the universal and intercultural dynamic of gender roles, personal identity, and political consciousness. (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 1A

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 1A

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 1A

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 1A

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 1A

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 1A

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 1A

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 1A

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 1A

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 1A

Hours: 54 lecture

A specialized course focusing on the film adaptations of novels. Includes historical background and basic terminology for the novel and film genres. Examines the challenges of adapting one art form into another, while studying specific novels and their film adaptations. (CSU, UC)

ENGL 0041. The Documentary Film: Argumentative Discourse*Units: 3*

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Examines documentary films as a mode of argumentative discourse. Emphasizes documentaries exploring selected contemporary cultural, social, and political controversies. Explores the use of documentary films to analyze cultural, political, and social issues, to promote political action and discourse, and to shape opinion. (CSU, UC)

ENGL 0042. The Documentary Film*Units: 3*

Prerequisite: Eligibility for ENGL 1A

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. Introduction to Children's Literature*Units: 3*

Also known as HDEV 44

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Examination of classic and contemporary children's literature, including criteria for selection, uses in child development and education, and practices in presentation and analysis. Designed for parents, prospective teachers, aides, child development professionals and students interested in the field of literature for children ages 1-13. (C-ID ENGL 180) (CSU)

ENGL 0045. Introduction to Adolescent Literature*Units: 3*

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

An examination of works which have earned merit as classics written for young adults, including discussion of literary form, the criteria for selection, practice in presentation and analysis, and aesthetic appreciation in young readers. May include representative writers such as Shakespeare, Dickens, Twain, and Tolkien as well as contemporary, multiculturally diverse writers such as Salinger, Angelou, Tan, Walker, and Wright. (CSU)

ENGL 0046A. English Literature*Units: 3*

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Survey of English literature from the Anglo-Saxon period through the mid 18th century. Includes 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 1A

Hours: 54 lecture

Survey of British, British Empire, and Commonwealth authors from the Romantic Movement through the 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 1A

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 1A

Hours: 54 lecture

A 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 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 145) (CSU, UC)

ENGL 0048. Literature of Science Fiction*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Major themes and types of science fiction literature, its primary artists, and its literary and historical relevance. (CSU, UC)

ENGL 0050. Mastering College Academic Literacy*Units: 3*

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 50L

Hours: 54 lecture

Emphasis on inferential comprehension, critical evaluation and academic strategies for college-level texts. Critical academic skills include evaluation of college level texts, analysis of media-based information. Not open to students who have completed English N. (not transferable)

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 0060. Basic Grammar and Punctuation*Unit: 1*

Formerly known as ENGL 400A

Advisory: Eligibility for ENGL A

Hours: 18 lecture

Review of fundamentals of English grammar and usage with a focus on helping students edit their own writing. Reviews parts of speech, parts and types of sentences, pronoun usage, subject-verb agreement, and punctuation. Not intended as a comprehensive course in English grammar. (not transferable)

ENGL 0501. Developmental Writing*Units: 4*

Hours: 90 (54 lecture, 36 activity)

Focuses on basic writing skills through practice in writing and reading. Emphasizes the writing process leading to development of skills in writing sentences, single paragraphs, and multi-paragraph assignments. Reviews paragraph organization and development, grammar, punctuation, usage, and mechanics. Designed for students who need review prior to enrolling in ENGL A. Not open to students who have completed ENGL 571. (not degree applicable)

ENGL 0510. Writing for Proficiency*Unit: 1*

Hours: 18 lecture

Review and practice in understanding writing assignments; structuring and developing paragraphs and essays; editing and correcting errors in grammar and mechanics. (pass/no pass grading) (not degree applicable)

ENGL 0560. Foundations of College Academic Literacy*Units: 3*

Prerequisite: Completion with grade of "C" or better, or concurrent enrollment in, ENGL 560L

Advisory: Placement by matriculation assessment process

Hours: 54 lecture

Designed to assist students in developing foundational strategies for success in college level reading and learning. Increases competency in vocabulary, word usage, spelling, and writing strategies. (not degree applicable)

ENGL 0560L. Foundations of College Academic Literacy Laboratory*Unit: 1*

Prerequisite: Completion with grade of "C" or better, or concurrent enrollment in, ENGL 560

Advisory: Placement by matriculation assessment process

Hours: 54 laboratory

Development of a variety of comprehension strategies to apply to a range of texts. (not degree applicable)

ENGL 0570. Developing College Academic Literacy*Units: 3*

Prerequisite: Completion of ENGL 560 and 560L 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 570L

Hours: 54 lecture

Focus on literal comprehension skills. Emphasis on vocabulary development, determining main idea, supporting details and patterns of organization, drawing a logical inference and incorporation of these skills into college-level academic literacy. Not open to students who have completed ENGL 571. (not degree applicable)

ENGL 0570L. Developing College Academic Literacy Laboratory*Unit: 1*

Prerequisite: Completion of ENGL 560 and 560L 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 570

Hours: 54 laboratory

Application of literal comprehension skills to a variety of pre-college level texts. Not open to students who have completed ENGL 571. (not degree applicable)

ENGL 0571. Integrated Foundations of Reading and Composition*Units: 4-6*

Prerequisite: Completion of ENGL 560 and 560L with grades of "C" or better, or placement by matriculation assessment process

Hours: 72 lecture (4 units); 108 lecture (6 units)

Practice in pre-college level reading and writing, emphasizing their interrelatedness. Focuses on strategies to improve comprehension, develop vocabulary, analyze expository and literary texts, paragraph structure and development, sentence structure, usage, punctuation, and mechanics. Includes reading and writing a variety of paragraphs and progressing into essays. Variable unit course: 4 units accelerated or 6 units standard based upon assessment scores. Course equivalent to ENGL 501, 570 and 570L, combined. Not open to students who have successfully completed ENGL 501, 570, or 570L. (not degree applicable)

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 0813. Bible as Literature*Units: 0*

Hours: 8 to 54 lecture as scheduled

Course for older adults interested in exploring the Bible as literature. Close reading of books from the Bible discussed in the historical and cultural context of the times. Emphasis on literary characteristics of the books and/or topics. Different books and/or topics examined each class offering. 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)

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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

English as a Second Language (ESL) is a program for non English-speaking students. Courses are offered for all fluency levels and are based on innovative curriculum and a variety of methods and techniques to fit different learning styles. The program serves students who speak a large variety of languages and offers seven levels of courses from novice to advanced college. At least one year of ESL adult education is recommended for resident students entering at the novice level. There are four courses at most levels: writing, grammar, reading/vocabulary and listening/speaking.

Faculty

Marcia Brock**Professor, English as a Second Language**

B.A., Eastern Kentucky University
 M.A., Eastern Kentucky University
 M.A., California State University, Sacramento

Sonia Delgadillo
Assistant Professor, English as a Second Language

B.A., San Francisco State University
 M.A., San Francisco State University

Kaye Foster
Professor, English as a Second Language

B.A., Pitzer College
 M.A., Monterey Institute of International Studies

Robin Persiani
Professor, English as a Second Language

B.A., University of California, Santa Barbara
 M.A., Northern Arizona University

Jessica Schamber
Professor, English as a Second Language
 B.A., California State University, Chico
 M.A., California State University, Sacramento

Liaison Counselors

Cheryl Axton, Paul Neal

Degrees/Certificates
English as a Second Language Academic Preparedness Skills Certificate

The ESL Academic 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

ESL 0025G	Academic Grammar and Editing	3
ESL 0025L	Academic Listening and Speaking	3
ESL 0030C	Academic Reading and Writing (OR)	5-6
or ESL 0030R & ESL 0030W	Advanced Reading and Vocabulary and Advanced Writing	

Total Units **11-12**

Courses

Understanding course descriptions (p. 268)

ESL 0024P. Accent Reduction and Pronunciation for ESL Students

Unit: 1
 Prerequisite: Completion of ESL 520L with grade of "C" or better, or placement through assessment process at or above the ESL 530 level
 Advisory: Concurrent enrollment in ESL 530L and/or ESL 25L
 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 0025G. Academic Grammar and Editing

Units: 3
 Prerequisite: Placement by ESL matriculation assessment process, completion of ESL 530G with grade of "C" or higher, or eligibility for ENGL A
 Advisory: Concurrent enrollment in ESL 540W or 30W recommended
 Hours: 72 (54 lecture, 18 laboratory)
 Multi-skill course emphasizing academic grammar and editing skills for non-native speakers. Focus on verb tense usage and sequence, conditional, passive voice for research writing, clauses and self-editing strategies. Open to students eligible for ESL 540, ESL 30 or ENGL A. (CSU)

ESL 0025L. Academic Listening and Speaking

Units: 3
 Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530L with a grade of "C" or better
 Hours: 72 (54 lecture, 18 laboratory)
 Speaking and listening course for non-native speakers with emphasis on advanced oral skills and tasks necessary to succeed in academic situations, including note-taking, listening comprehension, and academic speaking tasks. Open to students eligible for ESL 540 or ESL 30. (CSU)

ESL 0030C. Academic Reading and Writing

Units: 5
 Prerequisite: Placement by matriculation assessment process or completion of ESL 540C; or ESL 540R and 540W with grade(s) of "C" or better
 Hours: 108 (90 lecture, 18 laboratory)
 Essay organization, incorporation of academic sources, timed-writing, and revision editing. Emphasizes critical thinking skills and evaluation of academic texts for research purposes. Prepares students for ENGL 1A. Course equivalent to ESL 30W and 30R, combined. Students enrolling in ESL 30C after successfully completing ESL 30W and/or ESL 30R will lose credit for ESL 30W and/or ESL 30R. (CSU, UC-with unit limitation)

ESL 0030R. Advanced Reading and Vocabulary

Units: 3
 Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 540C or 540R with grade of "C" or better
 Hours: 72 (54 lecture, 18 laboratory)
 Multi-skill course emphasizing advanced reading and vocabulary skills for non-native English speakers. Focus on strategies for comprehending and analyzing authentic literary, journalistic, and academic texts, and building academic vocabulary. (CSU)

ESL 0030W. Advanced Writing

Units: 3
 Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 540C or 540W with grade of "C" or better
 Advisory: Concurrent enrollment in ESL 30R recommended
 Hours: 54 lecture
 Multi-skill course emphasizing advanced writing skills for non-native English speakers. Focus on essay organization, development, support from sources, timed writing and editing strategies. Departmental writing exam/portfolio process required for successful course completion. Prepares students for ENGL 1A. (CSU, UC-with unit limitation)

ESL 0040L. College Communication for Non-Native Speakers*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 25L with a grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

College speaking and listening course for non-native speakers. Focus on formal and informal speaking and class participation skills for college settings, including lecture comprehension/note-taking and oral presentations. (CSU)

ESL 0500G. Novice Grammar*Units: 3*

Prerequisite: Placement by ESL matriculation process

Advisory: Concurrent enrollment in ESL 500W, 500R and 500L

Hours: 54 lecture

Multi-skill course emphasizing grammar skill development for non-native English speakers. Focus on basic grammar usage for sentence-level writing. (not degree applicable)

ESL 0500L. Novice Listening and Speaking*Units: 3*

Prerequisite: Placement by ESL matriculation process

Advisory: Concurrent enrollment in ESL 500W, 500G and 500R

Hours: 54 lecture

Multi-skill course emphasizing listening and speaking skill development for non-native English speakers. Focus on listening comprehension, oral fluency for common daily and academic situations, novice vocabulary and structures. (not degree applicable)

ESL 0500R. Novice Reading and Vocabulary*Units: 3*

Prerequisite: Placement by ESL matriculation process

Advisory: Concurrent enrollment in ESL 500W, 500G, and 500L

Hours: 54 lecture

Multi-skill course emphasizing reading and vocabulary skill development for non-native English speakers. Focus on novice skills in reading short texts for comprehension and vocabulary acquisition. (not degree applicable)

ESL 0500W. Novice Writing*Units: 3*

Prerequisite: Placement by ESL matriculation process

Advisory: Concurrent enrollment in ESL 500G, 500R and 500L recommended

Hours: 54 lecture

Multi-skill course emphasizing writing skills for non-native English speakers. Focus on sentence-level writing. Departmental writing examination/portfolio process required for successful course completion. (not degree applicable)

ESL 0510G. Novice-High Grammar*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 500G with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 510W, 510R, and 510L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing grammar skills for non-native English speakers. Focus on grammar for paragraph-level writing. (not degree applicable)

ESL 0510L. Novice-High Listening and Speaking*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 500L with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 510W, 510G and 510R

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing listening and speaking skill development for non-native English speakers. Focus on listening comprehension, oral fluency, novice-high vocabulary and structures. (not degree applicable)

ESL 0510R. Novice-High Reading and Vocabulary*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 500R with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 510W, 510G and 510L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing reading and vocabulary skill development for non-native English speakers. Focus on reading comprehension, vocabulary and dictionary skills. (not degree applicable)

ESL 0510W. Novice-High Writing*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 500W with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 510R, 510G and 510L

Hours: 54 lecture

Multi-skill course emphasizing writing skills for non-native English speakers. Focus on paragraph-level writing. Departmental writing examination/portfolio process required for successful course completion. (not degree applicable)

ESL 0515. ESL through Computer Technology*Units: 3*

Hours: 72 (36 lecture, 36 activity)

Introduction for non-native speakers of English to computer parts and function vocabulary, keyboarding, word processing, mySierra, Canvas and internet and software use for language learning. Prepares students for future or current ESL lab classes. (not degree applicable)

ESL 0520G. Intermediate-Low Grammar*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510G with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 520W, 520R and 520L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing grammar skills for non-native English speakers. Focus on grammar for paragraphs and short essays including sentence structures, simple and complex verb tenses, auxiliary verbs and modifiers. (not degree applicable)

ESL 0520L. Intermediate-Low Listening and Speaking*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510L with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 520W, 520G and 520R

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing listening and speaking skill development for non-native English speakers. Focus on listening comprehension, oral fluency, intermediate-low vocabulary and structures. (not degree applicable)

ESL 0520R. Intermediate-Low Reading and Vocabulary*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510R with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 520W, 520G and 520L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing reading and vocabulary skill development for non-native English speakers. Focus on reading texts with greater comprehension, speed and more vocabulary acquisition. (not degree applicable)

ESL 0520W. Intermediate-Low Writing*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 510W with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 520G, 520R and 520L

Hours: 54 lecture

Multi-skill course emphasizing writing skills for non-native English speakers. Focus on paragraph and short multiple-paragraph writing. Departmental writing examination/portfolio process required for successful course completion. (not degree applicable)

ESL 0530G. Intermediate-Mid Grammar*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520G with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 530W, 530R and 530L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing grammar skills for non-native English speakers. Focus on grammar for short essays including complex sentence structures, perfect and progressive verb tenses, and modal auxiliaries. (not degree applicable)

ESL 0530L. Intermediate-Mid Listening and Speaking*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520L with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 530W, 530G and 530R

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing listening and speaking skill development for non-native English speakers. Focus on listening comprehension, oral fluency for academic and community situations and intermediate-mid vocabulary and structures. (not degree applicable)

ESL 0530R. Intermediate-Mid Reading and Vocabulary*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520R with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 530W, 530G and 530L

Hours: 72 (54 lecture, 18 laboratory)

Multi-skill course emphasizing reading and vocabulary skill development for non-native English speakers. Focus on reading longer more complex texts with greater comprehension and speed and vocabulary and idiom acquisition. (not degree applicable)

ESL 0530W. Intermediate-Mid Writing*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 520W with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 530G, 530R and 530L

Hours: 54 lecture

Multi-skill course emphasizing writing skills for non-native English speakers. Focus on basic organization and development in essay writing. Departmental writing examination/portfolio process required for successful course completion. (not degree applicable)

ESL 0540C. Introduction to Academic Reading and Writing*Units: 5*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530R and 530W with grades of "C" or better

Advisory: Concurrent enrollment in ESL 25G

Hours: 108 (90 lecture, 18 laboratory)

Introduction for non-native speakers to essay organization, timed-writing, and editing, as well as comprehension and evaluation of academic texts. Prepares students for the 30 level courses. Course equivalent to 540R and 540W, combined. Not open to students who have successfully completed ESL 540R or 540W. (not degree applicable)

ESL 0540R. Intermediate-High Reading and Vocabulary*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530R with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 540W recommended

Hours: 72 (54 lecture, 18 laboratory)

Intermediate-high reading course for non-native speakers on reading longer academic texts with better understanding, improving reading speed and extensive out-of-class reading. (not degree applicable)

ESL 0540W. Intermediate-High Writing*Units: 3*

Prerequisite: Placement by ESL matriculation assessment process or completion of ESL 530W with a grade of "C" or better

Advisory: Concurrent enrollment in ESL 25G, 540R and 25L recommended

Hours: 54 lecture

Intermediate-high writing course for non-native speakers on academic essay organization, timed writing, integration of writing and grammar and editing. Departmental writing examination/portfolio process required for successful course completion. Prepares students for ESL 30W. (not degree applicable)

ESL 0805. English for Work Success*Units: 0*

Hours: 48-96 activity as scheduled

Novice-level vocational English as a Second Language focusing on workplace language needs and skills. Emphasis on listening and speaking in workplace situations and related grammar, structure, vocabulary, reading and writing skills. May be repeated. (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 Studies and Sustainability

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

Division Office

V 211, Rocklin Campus

Overview

The Environmental Studies 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 Gilbert

Professor, Environmental Studies and Sustainability

B.A., University of California, Davis

M.S., California State University, Chico

Liaison Counselors

Marcia Braga, Florence Charlie

Degrees/Certificates

Environmental Studies and Sustainability

AS Degree

Successful completion of the Environmental Studies and Sustainability curriculum will prepare students for transfer to four-year colleges or universities. The major has been designed to meet lower-division requirements for Environmental Studies and Environmental Science 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

BIOL 0001	General Biology	4
BIOL 0002	Botany	4.5

BIOL 0003	General Zoology	4.5
ESCI 0001	Physical Geology	3
ECON 0001A	Principles of Macroeconomics	3
or ECON 0001B	Principles of Microeconomics	
ESS 0001	The Environment and the Human Impact	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	Globalization Studies	
BIOL 0013	Field Methods in Ecology	
BIOL 0014	Natural History, Ecology and Conservation	
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 Mountain ¹	
BIOL 0016P	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	Coastal Habitats of Northern California ¹	
BIOL 0016U	Coastal Habitats of Central California ¹	
BIOL 0016V	Deserts of Southern California ¹	
BIOL 0016W	Biology/Ecology of the Klamath and the Southern Cascade ¹	
BIOL 0016Y	Ecology of Selected Wilderness Ecosystems ¹	
BIOL 0016Z	Ecology of the American River ¹	
BIOL 0023	Wildflower Identification	
BIOL 0024	Wildland Trees and Shrubs (Dendrology)	
CET 0040	Beginning Photovoltaic Systems	
ECON 0001A	Principles of Macroeconomics	
or ECON 0001B	Principles of Microeconomics	
ESCI 0001L	Physical Geology Laboratory	
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 0055F	Weekend Field Geology ¹
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate (also ESCI 0007)
ESS 0010	Conservation of Natural Resources
ESS 0013	Environmental Regulations
GEOG 0001	Physical Geography
GEOG 0002	Cultural Geography
GEOG 0090	Introduction to Geographic Information Systems (GIS)
GEOG 0091A	Beginning Arc GIS
GEOG 0091B	Intermediate Arc GIS
MATH 0013	Elementary Statistics
PHIL 0060	Introduction to Environmental Ethics
PSYC 0170	Environmental Psychology

Total Units **26-28**

¹ A maximum of 3 units may be taken from the BIOL 0016 and ESCI 0016, 0054 and 0055 field studies courses.

Courses

Understanding course descriptions (p. 268)

ESS 0001. The Environment and the Human Impact

Units: 3

Formerly known as INT 1

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Theoretical and practical understanding of the principles of ecology, the complexities of technology, and the contemporary problems of the environment on both a local and global level. Lecture/discussion and films in the areas of population, technology, environmental restoration, land use, energy, pollution, and world hunger, as well as the basic concepts, economics, politics, poetry, literature, and philosophy of ecology. (CSU, UC)

ESS 0006. The Sierra Nevada

Units: 3

Formerly known as INT 6

Advisory: Eligibility for ENGL 1A

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 0007. Energy, Environment, and Climate

Units: 3

Also known as ESCI 7

Advisory: Eligibility for ENGL 1A

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 current strategies for mitigation and adaptation to changing climate predictions, including future alternative energy sources. (CSU, UC)

ESS 0010. Conservation of Natural Resources

Units: 3

Formerly known as AGRI 190 and NATR 10

Advisory: Eligibility for ENGL 1A

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 14 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 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 Studies 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. 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 - its physical, biological, energy-related, and ecological elements.
- Describe and analyze core environmental problems, their causes and consequences, and practical solutions.
- Apply the conservation of matter and energy to environmental systems.
- Investigate the role of governmental policy, citizen involvement, and/or ethics/values/morals in influencing human interaction with the environment.

- Evaluate and apply principles of sustainability to human activity on earth.

Fashion

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Higashi

Assistant Professor, Fashion

B.A., San Francisco State University

Liaison Counselor

Tonya Times

Fashion Advisory Committee

- Joseph Green, Regional Manager, bebe
- Diana Higashi, Assistant Professor, Fashion, Sierra College
- Julie Hirota, Fabric Artist
- Michael Sommerfield, Owner, Miosa Couture

Degrees/Certificates

Associate Degree

- Fashion Industries (p. 133)

Certificate of Achievement

- Fashion Industries (p. 133)

Skills Certificates

- Fashion Design (p. 133)
- Fashion Merchandising (p. 133)

Fashion Industries

AS Degree and/or 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. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses

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
or FASH 0014	Visual Merchandising	
FASH 0008	Fashion Illustration	3
FASH 0011	Buying for the Fashion Industry	1
FASH 0012	Fashion History	3
or FASH 0015	Clothing and Culture	
FASH 0016	Fashion Portfolio Development	3
FASH 0028	Independent Study	1
or FASH 0095	Internship in Fashion	
BUS 0120	Introduction to Marketing	3
or BUS 0123	Retailing	
BUS 0140	Small Business Management	3
Total Units		32

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

FASH 0002	Fashion Analysis and Selection	3
FASH 0003	Textiles	3
FASH 0004A	Basic Clothing Construction	3
FASH 0004B	Intermediate Clothing Construction	3
FASH 0008	Fashion Illustration	3
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

FASH 0001	Introduction to Fashion	3
FASH 0002	Fashion Analysis and Selection	3
FASH 0007	Fashion Promotion	3
FASH 0011	Buying for the Fashion Industry	1

FASH 0014	Visual Merchandising	3
Select one of the following:		3
BUS 0120	Introduction to Marketing	
BUS 0123	Retailing	
BUS 0140	Small Business Management	
Total Units		16

Courses

Understanding course descriptions (p. 268)

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. 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. SNAP Fashion presented with focus on flat sketch. (CSU)

FASH 0011. Buying for the Fashion Industry

Unit: 1

Hours: 18 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 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. (not transferable)

FASH 0012. Fashion History

Units: 3

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 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 0016. Fashion Portfolio Development

Units: 3

Prerequisite: Completion of FASH 4A, 7, 8, and 14 with grades of "C" or better

Hours: 72 (36 lecture, 36 activity)

Creation and use of fashion portfolio for college transfer to a four year school and/or job interviews in the fashion industries. Students brand and market themselves highlighting individual skills and strengths. Exploration of different presentation styles includes print and digital material. As a culmination of their studies students present the portfolio in interview format as final project. For advanced students. (not transferable)

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. 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 and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Department Coordinator

Tim Palmer

Department Office

Room 205, Roseville Gateway Center, Phone (916) 781-6255

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).

Many Fire Technology courses, up to 30 units, may be transferred to CSU.

Faculty

Matthew Jewett**Assistant Professor, Fire Technology**

A.S., Allan Hancock College

B.S., California Maritime Academy

Tim Palmer**Assistant Professor/Coordinator, Fire Technology**

B.S., California State University, Long Beach

Liaison Counselors

Cheryl Axton, Sandra Muraki

Fire Technology Advisory Committee

- Shelly Allen (Pearce), Chief 2, USFS-Tahoe National Forest, Nevada City
- Mark Buttron, Battalion Chief, Grass Valley Fire Department
- Brad Chisholm, Captain, Squaw Valley Fire Department
- Tim Crum, Division Chief, CAL FIRE (Retired)
- Mark D'Ambrogi, Chief, Auburn City Fire Department (Retired)
- Sam Goodspeed, Fire Chief, Nevada City Fire Department
- Ed Horton, Fire Chief, Loomis Fire Department (Retired)
- Mike Papera, Placer County Office of Education, 49er ROP
- David Ray, Division Chief, Nevada County Consolidated Fire District (Retired)
- Mark Romer, Division Chief, City of Roseville Fire Department (Retired)
- John Ruffcorn, Chief, Auburn City Police and Fire Departments
- Barton Ruud, Emeritus Professor, Sierra College
- Jake Sjolund, Battalion Chief, CAL FIRE, Auburn
- Rachelle Smith, Career Education Liaison, Sierra College
- Jim Summers, Fire Chief, Rocklin Fire Department

Firefighter I Academy

The Firefighter I 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; both courses must be completed with grades of "C" or better. Students accepted into the Academy must enroll in FIRE 0100 (538.5 hours) and PHED 0200 (80 hours).

The Firefighter I Academy is offered in 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 July through December and the spring academy runs from January through late May or early June. Classes are held Tuesday and Thursday nights and on Saturdays. Classes may also be scheduled on some Friday nights and Sundays. The Physical Training classes meet on Monday and Wednesday nights.

Individuals completing the Academy and passing the certification testing process, which may include written and skills performance tests, may then apply to the State of California for a Firefighter I Certificate after

successfully completing 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. The California State Fire Marshal's Office is working towards nationally accredited certification approved by the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualifications (Pro Board). Students completing the academy will be eligible to apply for these additional certifications in the future.

Other Certificates of Training awarded upon completion of the Academy include: (subject to change)

- Introduction to the Incident Command System—IS 100
- National Incident Management System (NIMS) IS 700A
- Confined Space Awareness
- Hazardous Materials First Responder—Operational
- Hazardous Materials First Responder—Decontamination
- Fire Control 3B
- 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 through an application process which includes a physical examination. Applications for the Academy are available in April for the fall academy and October for the spring academy.

Fire 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.

FIRE 0150	Command 1A-Structure Fire Operations for the Company Officer	1.5
FIRE 0151	Fire Command 1B-Incident Management for Company Officers	2
FIRE 0152	Command 1C - I-Zone Fire Fighting for Company Officers	1.5
FIRE 0154	Fire Investigation 1A - Fire Cause, Origin and Determination	2
FIRE 0157	Management and Supervision for Company Officers	2
FIRE 0158	Prevention 1-Fire Prevention for the Company Officer	1.5
FIRE 0165	Training Instructor 1A	1.5
FIRE 0166	Training Instructor 1B	1.5
FIRE 0242	I-300: Intermediate ICS for Expanding Incidents	1

Chief Officer Courses

The Fire Technology courses that are part of the State Fire Marshal's certification track for CHIEF OFFICER are currently under revision. The courses are intended for individuals currently employed as professional or volunteer fire officers who hold a Chief Officer position.

Degrees/Certificates

Fire Technology

AA or AS and/or Certificate of Achievement

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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC). (p. 263)

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

Required Courses

FIRE 0001	Fire Protection Organization	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

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 0095	Internship in Fire Technology	
FIRE 0100	Firefighter I Academy	
FIRE 0150	Command 1A-Structure Fire Operations for the Company Officer	
FIRE 0151	Fire Command 1B-Incident Management for Company Officers	
FIRE 0152	Command 1C - I-Zone Fire Fighting for Company Officers	
FIRE 0154	Fire Investigation 1A - Fire Cause, Origin and Determination	
FIRE 0155	Fire Investigation 1B - Techniques of Fire Investigation	
FIRE 0157	Management and Supervision for Company Officers	
FIRE 0158	Prevention 1-Fire Prevention for the Company Officer	
FIRE 0165	Training Instructor 1A	
FIRE 0166	Training Instructor 1B	

FIRE 0167	Training Instructor 1C
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 0241	I-200: Incident Command System
FIRE 0242	I-300: Intermediate ICS for Expanding Incidents
FIRE 0243	I-400: Advanced ICS for Complex Incidents
FIRE 0262	Fire Investigation 2A: Criminal and Legal Procedures
FIRE 0263	Fire Investigation 2B: Field Case Studies

Total Units **30**

Courses

Understanding course descriptions (p. 268)

FIRE 0001. Fire Protection Organization

Units: 3

Hours: 54 lecture

Introduction to the fire service and fire protection. Topics include career opportunities, philosophy and history of the fire service, 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, basic fire chemistry and physics, introduction to fire protection systems, introduction to tactics and strategy, incident command system and National Incident Management System. (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. (CSU-with unit limitation)

FIRE 0004. Fire Protection Equipment and Systems

Units: 3

Advisory: Completion of or concurrent enrollment in FIRE 1

Hours: 54 lecture

Design, operation, maintenance and inspection of automatic fire sprinkler systems, standpipes, water supply systems, special fire protection systems, smoke management systems, and portable fire extinguishers in accordance with local, state and national guidelines. (CSU-with unit limitation)

FIRE 0005. Fire Prevention Technology

Units: 3

Advisory: Completion of or concurrent enrollment in FIRE 1

Hours: 54 lecture

History and philosophy of fire prevention technology, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems. (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

Basic principles of building construction and how it relates to fire and life safety. Focal points include building history, codes, design process, occupancy types, construction types, components, inspection process relating to preplanning, safety, collapse, expected fire behavior with different building types and materials, and fire ground operations. (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 behavioral change throughout the emergency services. Includes the history of fire service culture; the national context of health and safety; training, equipment and emergency response; organizational health and safety profile; risk management; and public education for fire prevention. (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*

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 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. 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 0100. Firefighter I Academy*Units: 16*

Prerequisite: Completion of FIRE 1 with grade 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 PHED 200

Hours: 538.5 (167 lecture, 371.5 laboratory)

Designed for entry level firefighters. Approved by the California State Board of Fire Services and Fire Marshal's Office. When combined with a specified experience component leads to state certification as a Firefighter I. Includes: fire behavior, control techniques, ground operations, hazardous materials, incident command system, auto extrication, salvage operations, and wildland fire behavior/control. Certificate of Completion issued with grade of "C" or better in both FIRE 100 and PHED 200. Physically demanding program. Materials fee required. (not transferable)

FIRE 0150. Command 1A-Structure Fire Operations for the Company Officer*Unit: 1.5*

Prerequisite: Completion of FIRE 100, 158 and 241 with grades of "C" or better

Hours: 40 (23 lecture, 17 laboratory)

Provides an introduction to the principles of command; an overview of the concepts of command safety and the risk management process; pre-incident planning considerations; and command considerations at structure fire incidents, Company Officer initial actions at an incident including the development of incident priorities, strategy, and tactics, information on the roles and responsibilities of a Company Officer for post-incident actions. Each student has the opportunity to gain experience in a controlled environment through structure fire incident simulations. (CSU-with unit limitation)

FIRE 0151. Fire Command 1B-Incident Management for Company Officers*Units: 2*

Prerequisite: Completion of FIRE 150 with grade of "C" or better or completion of a State Fire Marshal certified Fire Command 1A class
Hours: 40 lecture

Responsibilities of the "first-in" officer at incidents involving multiple casualties, hazardous materials and wildland fires. Through the use of simulations, emphasis on the development of management and decision-making practices required for successful scene management. (CSU-with unit limitation)

FIRE 0152. Command 1C - I-Zone Fire Fighting for Company Officers*Unit: 1.5*

Prerequisite: Completion of FIRE 150 and 241 with grades of "C" or better; and S-290 Intermediate Wildland Fire Behavior (NWCG online is acceptable)

Hours: 40 (24 lecture, 16 laboratory)

Designed around the responsibilities of the company officer at a wildland/urban interface incident. Emphasis on fire environment, incident command system, I-zone operation principles, safety and survival, and I-zone incident operations. Meets established federal and state training guidelines. (CSU-with unit limitation)

FIRE 0154. Fire Investigation 1A - Fire Cause, Origin and Determination*Units: 2*

Formerly known as FIRE 62

Hours: 40 lecture

Develop skills to determine the origin and cause of fire, its human and environmental effects and develop interpersonal skills needed to successfully investigate, apprehend, and convict an arsonist. (CSU-with unit limitation)

FIRE 0155. Fire Investigation 1B - Techniques of Fire Investigation*Units: 2*

Prerequisite: Completion of FIRE 154 with grade of "C" or better or completion of an approved Fire Investigation 1A class

Hours: 40 lecture

Investigation of fire behavior; building construction; techniques required for incendiary, accidental, fatal, vehicle, wildland, and juvenile fire investigations; report writing; and evidence collection and preservation procedures. (CSU-with unit limitation)

FIRE 0157. Management and Supervision for Company Officers*Units: 2*

Formerly known as FIRE 64

Hours: 40 lecture

Concepts of supervision and management for company officers, organizational structure, problem solving and decision making, communication, group dynamics, performance evaluations, counseling, legal aspects of supervision, managing change, time management, leadership qualities and traits. (CSU-with unit limitation)

FIRE 0158. Prevention 1-Fire Prevention for the Company Officer*Unit: 1.5*

Hours: 32 lecture

Fire prevention fundamentals for developing fire prevention techniques at the company officer level: the student will learn basic fire code, construction, occupancy types, fire and life safety, conducting inspections, recording inspection reports, and communicating deficiencies and violations to obtain proper correction or mitigation. This course is intended for working firefighters. (CSU-with unit limitation)

FIRE 0165. Training Instructor 1A*Unit: 1.5*

Formerly known as FIRE 164

Hours: 40 (24 lecture, 16 laboratory)

Methods and techniques for training in accordance with the latest concepts in career education: selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons; criteria and methods to evaluate teaching and learning efficiency; apply major principles of learning through teaching demonstrations. (CSU-with unit limitation)

FIRE 0166. Training Instructor 1B*Unit: 1.5*

Formerly known as FIRE 163

Prerequisite: Completion of FIRE 165 with grade of "C" or better or successful completion of State Fire Marshal Training Instructor 1A course

Hours: 40 (24 lecture, 16 laboratory)

Methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; apply major principles of learning through teaching demonstrations. (CSU-with unit limitation)

FIRE 0167. Training Instructor 1C*Unit: 1.5*

Prerequisite: Completion of FIRE 166 with grade of "C" or better or successful completion of State Fire Marshal Training Instructor 1B course

Hours: 40 (24 lecture, 16 laboratory)

The third of a three-course series. Topics include methods and techniques for developing lesson plans, ancillary components, and tests in accordance with the latest concepts in career education. Offers the opportunity to develop, receive feedback, and finalize instructional materials and deliver a teaching demonstration. (CSU-with unit limitation)

FIRE 0170. Hazardous Materials - Operational Level*Units: 0.5,1*

Formerly known as FIRE 0041

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*Unit: 1.5*

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: 32 lecture

Covers fire behavior prediction skills and knowledge related to wildland fires. Meets standards prescribed by the National Wildfire Coordinating Group and the CA Incident Command Certification System for S-290 certification. (not transferable)

FIRE 0173. Hazardous Materials - Incident Commander*Unit: 1.5*

Formerly known as FIRE 0202

Prerequisite: Completion of FIRE 0241 with grade of "C" or better or a certified Hazardous Materials First Responder Operational course and I-100 (Basic Incident Command System)

Hours: 32 (28 lecture, 4 laboratory)

Principles and concepts of hazardous materials emergencies using the Incident Command System to safely and completely manage Haz Mat events. Professional training course prepares participants to assume role of Incident Commander and other command and general staff positions. For state certification, students must achieve 80% or better on the written examination. (not transferable)

FIRE 0241. I-200: Incident Command System*Units: 0.5*

Hours: 12 lecture

Introduction to 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. (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 0262. Fire Investigation 2A: Criminal and Legal Procedures*Unit: 1*

Prerequisite: Completion of FIRE 154 and 155 with grades of "C" or better, or Fire Investigation 1A and 1B certified by CA State Fire Marshal's Office

Hours: 40 (20 lecture, 20 laboratory)

Provides skills to successfully investigate, apprehend, and convict arsonists. Topics include explosives, surveillances, search and seizure, search warrants, report writing, trial process and courtroom demeanor. (not transferable)

FIRE 0263. Fire Investigation 2B: Field Case Studies*Unit: 1*

Prerequisite: Completion of FIRE 262 with grade of "C" or better, or Fire Investigation 2A certified by California State Fire Marshal's Office

Hours: 40 (16 lecture, 24 laboratory)

Advanced instruction in fire scene investigation, includes documenting the scene with photography and sketching, collecting evidence, preparing court exhibits, interviewing and interrogating suspects. Extensive use of simulations for presenting an arson case to a district attorney and judge and testifying as an expert witness. (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. (pass/no pass grading) (not degree applicable)

FIRE 0610. Swift Water Rescue Awareness*Units: 0.5*

Hours: 9 lecture

A basic swift water rescue course for emergency services. Includes water rescue environments and hazards, legal obligations, site safety, water rescue equipment, hydrology and swift water hazards, and low- to high-risk rescue options. (pass/no pass grading) (not degree applicable)

FIRE 0618. Fire Control 4A and 4B-Flammable Gases and Liquids*Units: 0.5*

Hours: 11 (8 lecture, 3 laboratory)

Examines flammable gases and liquids including characteristics, hazards, and tactics, through case studies and field exercises. (pass/no pass grading) (not degree applicable)

FIRE 0621. Wildland Chain Saw Techniques*Unit: 1*

Hours: 24 (16 lecture, 8 laboratory)

Chain saw operations emphasizing tree terminology, safety aspects, state/federal requirements, recognizing and handling hazards, felling and bucking procedures, brushing and fire lines. (pass/no pass grading) (not degree applicable)

FIRE 0624. CAL FIRE Basic Wildland Firefighter Training*Units: 3.5*

Hours: 80 (58 lecture, 22 laboratory)

Basic firefighting course covering fire physics, vegetation fire terminology, general safety, self-contained breathing apparatus, fireline safety, aircraft safety, mobile equipment, fire equipment, and wildland and structure firefighting. Meets minimum training requirements for CAL FIRE Firefighter I personnel. (pass/no pass grading) (not degree applicable)

FIRE 0630. In-Service Training*Units: 0.5-5*

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

Hours: 27 (9 lecture, 18 laboratory) per .5 unit

Satisfies standards for in-service training for fire service personnel in areas of knowledge, techniques and perishable skills. Includes administrative issues, engine and truck operations, fire control, emergency medical services, hazardous materials, rescues, command and control, fire prevention, pre-fire planning, specialized equipment and wellness and fitness. (pass/no pass grading) (not degree applicable)

FIRE 0632. Auto Extrication*Units: 0.5*

Hours: 16 (8 lecture, 8 laboratory)

Essentials of scene evaluation and extrication size up, types of tools and their application, how to remove windows, doors, roofs, and safely perform extrications from vehicles with various passenger restraint systems. May be repeated to meet legally mandated requirements. (pass/no pass grading) (not degree applicable)

FIRE 0634. Driver Operator 1A-Emergency Vehicle Operation*Unit: 1.5*

Prerequisite: California Driver License, Class B, Firefighter Restricted (minimum)

Hours: 40 (25 lecture, 15 laboratory)

Designed to provide the student with information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles. (pass/no pass grading) (not degree applicable)

FIRE 0635. Driver/Operator 1B - Pump Operations*Unit: 1.5*

Prerequisite: California Driver License, Class B, Firefighter Restricted (minimum)

Hours: 40 (25 lecture, 15 laboratory)

Provides information, theory, methods, and techniques for operating fire service pumps. Subjects include types of pumps, engine and pump gauges, maintenance, unsafe pumping conditions, pressure conditions, pressure relief devices, cooling systems, water supplies, drafting, field hydraulics, and pumping operations. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

FIRE 0639. Ethical Leadership in the Classroom*Units: 0.5*

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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). (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

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. (pass/no pass grading) (not degree applicable)

Program Student Learning Outcomes (PSLOs)

- Communicate effectively in both oral presentations and written reports and research papers.
- Analyze and evaluate data to solve Fire Technology problems.
- Recognize the importance of ethics and professionalism within the Fire Technology field.
- Analyze and apply measures to resolve problems in areas of suppression, prevention, and EMS.
- Demonstrate technical, cognitive, and psycho-motor skills necessary to achieve and maintain employment in the fire service.

French

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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. A language background should be of intrinsic value. The acquisition of desired practical communication skills in the study of modern foreign language is the primary objective. This can be accomplished by the oral approach, motivated by lectures and implemented by the language laboratory.

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.

Faculty

Laurence Lambert

Professor, French

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Liaison Counselor

Dale Quadros

Courses

Understanding course descriptions (p. 268)

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

Sciences and Mathematics

Dean

Heather Roberts

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 Booth

Professor, Geography

B.S., University of Oregon

M.A., California State University, Chico

Carol Cox

Professor, Geography

B.A., California Polytechnic State University, San Luis Obispo

M.A., California State University, Chico

Liaison Counselor

Rebecca Ortega

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

- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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 0011	Urban Geography of San Francisco ¹	
or GEOG 0012	Historical Geography of Northern California Communities	
or GEOG 0014	Field Geography of Yosemite and the Eastern Sierra	
or GEOG 0016	Field Geography	
GEOG 0090	Introduction to Geographic Information Systems (GIS)	
Select 6-7 units from the following or unused courses from the preceding area: ¹		6-7
ANTH 0002	Cultural Anthropology	
ESCI 0001	Physical Geology	
MATH 0013	Elementary Statistics	
Total Units		19-22

¹ A maximum of 2 units may be taken from GEOG 0011, 0012, 0014, and 0016.

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

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
CIS 0090	Database Management	
CSCI 0012	Programming Concepts and Methodology I	

Degrees/Certificates

Associate Degree for Transfer

- Geography for Transfer (p. 143)

Skills Certificate

- Geographic Information System (GIS) (p. 143)

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

CSCI 0052	Introduction to SQL
DES 0005	Computer-Aided Drafting IA
DES 0006	Computer-Aided Drafting IB
ENGR 0010	Engineering Survey Measurements
GEOG 0085	Application of Geospatial Technologies
GEOG 0091B	Intermediate Arc GIS
GEOG 0094	Geospatial Analysis
GEOG 0095	Internship in Geography
Total Units	15

Courses

Understanding course descriptions (p. 268)

GEOG 0001. Physical Geography

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A spatial study of the Earth's dynamic physical systems and processes, including the earth's atmosphere, weather, climate regions, hydrosphere; oceans, clouds, rivers; biosphere, and the solid earth including its landforms. Emphasis on the holistic understanding of environmental systems, as they relate to location. Human influence on the natural world examined in an integrative manner using spatial inquiry. Geographic tools used may include maps and visual imagery, remote sensing and computer technologies of modeling, Global Positioning Systems (GPS) and Geographic Information Systems (GIS). (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 1A

Hours: 54 lecture

Diverse patterns of cultural development including population, religion, languages, political systems and other societal characteristics. Analysis of spatial differences of cultures including housing types, city planning, 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 resources. (C-ID GEOG 120) (CSU, UC)

GEOG 0003. Geography of California

Units: 3

Advisory: Eligibility for ENGL 1A

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 1A

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 elements and classifications; climate variations and changes. (C-ID GEOG 130) (CSU, UC)

GEOG 0005. World Regional Geography

Units: 3

Advisory: Eligibility for ENGL 1A

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 0011. Urban Geography of San Francisco

Unit: 1

Hours: 30 (12 lecture, 18 laboratory)

Exploration of the cultural, economic and urban geography of San Francisco. This field course provides an introduction to the area's diversified geography including its location, ethnic diversity, urban settlement patterns and an overview of historical and economic regions. Students may be required to walk moderate distances. Additional fees may be required. (C-ID GEOG 160) (CSU)

GEOG 0012. Historical Geography of Northern California Communities

Unit: 1

Hours: 30 (12 lecture, 18 laboratory)

This field course explores cultural and historical geography of Northern California communities. Introduction to Northern California's diversified geography including physical landforms, economic diversity, settlement patterns and history of the Northern California communities. (C-ID GEOG 160) (CSU)

GEOG 0014. Field Geography of Yosemite and the Eastern Sierra

Units: 2

Hours: 54 (27 lecture, 27 laboratory)

Examination of physical and cultural geography of Yosemite Valley/the Eastern Sierra. This field course emphasizes fluvial and glacial landforms, geological patterns, weather, and climate regions, and the distribution of water resources. Cultural geographies include patterns of Native American and early pioneer settlements, current land use and economic activities. May involve light hiking. Additional fees may be required. (C-ID GEOG 160) (CSU)

GEOG 0015. Field Geography of Northern California

Units: 0.5

Hours: 13 (7 lecture, 6 laboratory)

Investigation of cultural and physical geography of a region in Northern California. This field course provides an introduction to the area's diversified geography including its location, physical landforms, economic diversity, urban settlement patterns and an overview of historical and cultural regions. May involve light hiking. Additional fees may be required. (CSU)

GEOG 0016. Field Geography*Units: 1-2*

Hours: 30 (12 lecture, 18 laboratory) per unit

Field lecture courses to regions of geographic interest to include physical, cultural, urban and/or historical elements. (C-ID GEOG 160) (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 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, techniques, and case studies, GPS set-up, spatial database organization, field collection, editing, and integration into the GIS. Culminates with final GPS mapping project. (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. 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 fields. (C-ID GEOG 155) (CSU, UC)

GEOG 0091A. Beginning Arc GIS*Unit: 1*

Hours: 18 lecture

Introduction to Geographic Information Systems (GIS) mapping software used to manage, analyze and display spatial information. Create reports and map layouts, query geographic databases, and solve spatial problems. Emphasis on using GIS software for practical applications in the fields of natural resource management, disaster mapping, cartographic design, urban planning, business and other related fields. (CSU)

GEOG 0091B. Intermediate Arc GIS*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 ArcGIS, focusing on queries, managing and preparing data for analysis, creating and editing GIS data, Geodatabases, 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

Builds on Intermediate GIS focusing on advanced technical skills and mapping, such as working with spatial databases, GIS models, vector and raster analysis, cartographic presentation and various 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. 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

The active part that the United States is taking in world affairs makes it desirable that a greater number of Americans than ever before have knowledge of foreign languages and cultures. A language background should be of intrinsic value. The acquisition of desired practical communication skills in the study of modern foreign language is the primary objective. This can be accomplished by the oral approach, motivated by lectures and implemented by the language laboratory.

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.

Liaison Counselor

Dale Quadros

Courses

Understanding course descriptions (p. 268)

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**

Health, Physical Education, Recreation/Athletics

Dean

Lucas Moosman

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**Darci Brownell**

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento

M.S., National University

Mary Conway

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Packer Collegiate Institute

B.S., City University of New York, Brooklyn College

M.S., University of Illinois, Chicago

Scott Decker

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., University of California, Davis

M.A., United States Sports Academy

Edward Eaton

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., San Jose State University

M.A.T., San Jose State University

Heather Eubanks

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Lutheran University

M.A., Azusa Pacific University

John Fusano

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason Gantt

**Assistant Professor, Athletics/Health Education/Physical Education/
Recreation Management**

B.S., California State University, Sacramento
M.S., California State University, Sacramento

Roz Goldenberg

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

B.A., California State University, Northridge
M.A., Humboldt State University

Brandie Murrish

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben Noonan

**Assistant Professor, Athletics/Health Education/Physical Education/
Recreation Management**

A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Jeff Tisdell

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

B.S., University of Nevada, Reno

Robert Willson

**Professor, Athletics/Health Education/Physical Education/Recreation
Management**

A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Liaison Counselors

Sandra Muraki, Tonya Times

Courses

Understanding course descriptions (p. 268)

HED 0001. Standard First Aid/Community CPR

Units: 3

Hours: 54 lecture

Course involves 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

Basic principles and concepts of the aging process; includes the physical, social, emotional, and mental components of health. Benefits of health promotion and preventive action for the aging are also explored. (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

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

Division Office

B 3, Rocklin Campus

Department Office

Room 205, Roseville Gateway Center

Department Phone

(916) 781-6250

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 in the providing emergency and primary health care services. There are no degree patterns or transfer majors in this area.

Faculty

David Sinclair

Professor, Health Sciences

A.A., Sierra College

B.S., University of San Francisco

M.P.A., University of San Francisco

Liaison Counselor

Tonya Times

Health Sciences/Emergency Medical Technician Advisory Committee

- Dana Bentley, R.N., M.I.C.N., C.E.N., Mercy San Juan Medical Center
- Greg Cavolt, Captain, Roseville City Fire Department
- Shani Cornell, Captain, Sacramento Metropolitan Fire Department
- Bill Daniels, Assistant Chief, Sacramento Metropolitan Fire Department
- Bridget Farren, Vice Principal, Del Oro High School
- Kathy Finney, Division Chief, Roseville City Fire Department
- Brian Gonsalves, Captain, Sacramento Metropolitan Fire Department
- Chris Greene, Captain, Sacramento Metropolitan Fire Department
- Matt Lauchner, Captain, Roseville City Fire Department
- Rob Riley, Operations Supervisor, Sierra Nevada Ambulance
- Edward Silvas, Paramedic, American Medical Response
- James Summers, Fire Chief, Rocklin City Fire Department
- Heath Taylor, Firefighter, Rocklin City Fire Department

Courses

Understanding course descriptions (p. 268)

HSCI 0002. Emergency Medical Technician

Units: 6.5

Prerequisite: Students must be 18 years of age at start of course; provide CPR certification from American Heart Association BLS (Basic Life Support) for Healthcare Providers or a Professional Rescuer CPR card from American Red Cross; provide proof of measles, mumps, and rubella (MMR) immunization; provide negative tuberculin skin test taken within 3 months of start of course; provide proof of varicella vaccine, proof of immunization, or positive varicella titer test; hepatitis B vaccine series completed with positive Hep B titer test, OR signed refusal form; current flu shot vaccination; and criminal background check clearance
Advisory: Completion of HSCI 3, HSCI 7 or BIOL 55 with grades of "C" or better; eligibility for ENGL 11

Hours: 166 (104 lecture, 38 skills laboratory, 24 field clinical laboratory)

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, recognizing signs and symptoms, and pathophysiology of medical emergencies and traumatic injuries. Includes practical hands-on skills training and interactive simulations. Clinical experience is an assigned field ride-along and/or clinical hospital observation. Attendance and participation are mandatory; a cumulative score of 80% on all written quizzes and exams, and passing score on all practical skills testing are required for successful course completion. 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, student is eligible to take the NREMT EMT examination and qualify for a California State EMT certification. (not transferable)

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

Hours: 72 (54 lecture, 18 laboratory)

Course involves the theory and practical skills training required to be certified as an EMR-Emergency Medical Responder. Comprehensive training includes oxygen therapy and delivery, basic airway adjuncts, positive pressure ventilation, bleeding control, extremity splinting and spinal immobilization. Emphasizes systematic patient assessment, critical thinking and medical interventions at the first responder level. Meets the National and State requirements for certification as an Emergency Medical Responder. The American Heart Association Basic Life Support for the Health Care Provider CPR card, and an Emergency Medical Responder Certificate of Completion will be issued with a grade of "C" or better. Highly recommended as a preparatory course prior to enrolling in HSCI 2. (not transferable)

HSCI 0050. Paramedic Preparatory Training*Units: 3.5*

Prerequisite: Completion of HSCI 2 with grade of "C" or better; must be currently certified as an EMT in the State of California OR eligible for a National Registry Certification

Hours: 80 (60 lecture, 20 laboratory)

Introduces the knowledge and critical thinking skills necessary to prepare for a paramedic program. Course is assessment based with focus on EMT and paramedic interventions; EKG recognition and interpretation; pharmacology; advanced airway management; IV and IO fluid and drug administration; basic anatomy, physiology and principles of pathophysiology; introduction to local, state and national ALS protocols. Practical skills lab sessions focus on improving patient assessment techniques, realistic case study scenarios, and introduction to paramedic ALS skills and interventions. Course format is interactive and simulates the intense pace and discipline required of an approved paramedic program curriculum. Student participation, passing of written exams and practical skills assessments, required for successful completion. Meets the mandated EMT transition requirements of the National Registry of Emergency Medical Technicians (NREMT) and the gap curriculum identified by the National Association of state EMS officials (NASEMSO). (not transferable)

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) (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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 de Unamuno****Assistant Professor, History**

B.A., University of California, Los Angeles

B.A., University of California, Los Angeles

M.A., University of California, Los Angeles

Daniel DeFoe**Professor, History**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Jay Hester**Professor, History/Women and Gender Studies**

B.A., University of California, Santa Barbara

M.A., University of Missouri, Columbia

David Kuchera**Professor, History**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Stephanie Lamphere**Professor, History**

B.I.E., Georgia Institute of Technology

M.A., San Jose State University

Lynnette Medeiros**Professor, History/Women and Gender Studies**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Aimee Myers

Professor, History

B.A., University of California, Riverside

M.A., University of California, Riverside

Ph.D., University of California, Riverside

Liaison Counselors

Brian Gosney, Reyes Ortega

Degrees/Certificates

Associate Degree for Transfer

- History for Transfer (p. 150)

Associate Degree

- History (p. 150)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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 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 0027 Women in American History

Total Units 18

History

AA Degree

The History major is awarded for study in United States, western civilization, or world history. The program strengthens historical inquiry through critical thinking and appreciation of cultural diversity. Students will identify and analyze historical sources, compare evidence and develop interpretations while gaining a fuller understanding of the past. Successful completion of the program will prepare students for transfer to four-year colleges and universities. The major is designed to meet the lower division requirements for History 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 6 units from the following: 6

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 0020 California History

HIST 0021 Contemporary United States History

HIST 0022 American Military History

HIST 0023 Chicano/Mexican American History

HIST 0027 Women in American History

Select 6 units from the following: 6

HIST 0004A	Western Civilization to 1715	
HIST 0004B	Western Civilization since 1715	
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 6 units from unused courses in the preceding areas:		6
Total Units		18

Courses

Understanding course descriptions (p. 268)

HIST 0004A. Western Civilization to 1715

Units: 3

Advisory: Eligibility for ENGL 1A

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 1A

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 0017A. History of the United States to 1877

Units: 3

Prerequisite: Eligibility for ENGL 50 or ENGL N

Advisory: Eligibility for ENGL 1A

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

Prerequisite: Eligibility for ENGL 50 or ENGL N

Advisory: Eligibility for ENGL 1A

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 1A

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 1A

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 1A

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 1A

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

Advisory: Eligibility for ENGL 1A

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 1A

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 1A

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*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Comprehensive survey of the history of Mexican Americans, from pre-Cortesian/Columbian times to the present. Emphasis on experiences and contributions of Chicanas/os in the United States regarding culture, economy, government, law, education and politics. (CSU, UC)

HIST 0024. Russian History - 10th Century to Present*Units: 3*

Advisory: Eligibility for ENGL 1A

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 0027. Women in American History*Units: 3*

Prerequisite: Eligibility for ENGL 50 or ENGL N

Advisory: Eligibility for ENGL 1A

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, 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 0050. World History to 1500*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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. 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 using an essay format.
- 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 and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

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; teacher assistant, associate teacher, teacher, master teacher, site supervisor and director. It also includes instruction in infant care, preschool, school-age care, children's advocacy and child care resource and referral agencies. Students develop skills important to employment as instructional assistants in kindergarten and primary

grade classrooms in public schools. Course work prepares students who wish to go into family and social services, as well as work with the elderly.

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 and certificates.

Students should be aware of the different levels of the permit and are recommended to counsel with a full-time Human Development and Family faculty member to discuss how to obtain a permit at one of the various levels through their course work. Upon completion of the AA/AS degree, a student will possess the course work required to work as a teacher in private and public preschool, as well as child care and development programs.

Faculty

Michelle Boucher

Assistant Professor, Human Development and Family

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Debra Eastman

Professor, Human Development and Family

B.S., University of California, Davis

M.A., Washington State University

Lori Kearney-Capaul

Professor, Human Development and Family

A.A., Sierra College

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Liaison Counselors

Terri Maddux, Rebecca Ortega

Early Childhood Education Advisory Committee

- Justine Attaran, Creekside Oaks STAR, Lincoln
- Laura Barhydt, Chana High School, Auburn
- Andrea Brand, Lincoln Crossing STAR
- Jody Braun, Lexington Hills KinderCare, Folsom
- Chelsea Cheramie, Student, ECE Club President
- Linda DeSai, Placer Nature Center, Auburn
- Mickey Eichenhofer, Placer County Office of Education, Auburn
- Stacie Gandy, Director, Childtime Learning Center, Roseville
- Joy Geck, Placer County Office of Education, Auburn
- Tanya Hanrihan, Career Education Liaison, Sierra College
- Valaine Hoffman, Career Education Liaison, Sierra College
- Kelly Lister, Executive Director, Phoenix Schools, Inc., Folsom

- Antoinette Manuel, Kids First Now
- Sasha Mendenhall, Program Coordinator, STAR Education
- Josie Shrieve, Family Child Care Provider
- Wendy Stewart, Oakmont High School, Roseville
- Melody Stizzo, Student, ECE Club Vice President
- Liz Stofleth, Placer County Action Council, Head Start
- Regina Swaney, Instructor, 49er ROP Careers with Children, Placer County
- Vickie Treadway, Preschool Manager, KidZKount, Placer Community Action Council, Inc.

Degrees/Certificates

Associate Degree for Transfer

- Early Childhood Education for Transfer (p. 153)

Associate Degrees

- Early Childhood Education (p. 154)
- Early Childhood Education—Master Teacher (p. 154)
- Early Childhood Education—Site Supervisor (p. 155)

Certificate of Achievement

- Early Childhood Education Teacher (p. 155)

Skills Certificate

- Early Childhood Education Associate Teacher (p. 155)

California Commission on Teacher Credentialing Child Development Permit Information

- Child Development Associate Teacher (p. 155)
- Child Development Teacher (p. 156)
- Child Development Master Teacher (p. 156)
- Child Development Site Supervisor (p. 156)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0003	Observation, Documentation and Assessment in ECE	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child and Adolescent Development	3
HDEV 0010	Practicum/Field Experience in Early Childhood Education	4.5
HDEV 0025	Culture and Diversity in Early Childhood Education	3
Total Units		25.5

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 (p. 250);
- California State University General Education (CSU GE) Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0003	Observation, Documentation and Assessment in ECE	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child and Adolescent Development	3
HDEV 0010	Practicum/Field Experience in Early Childhood Education	4.5
HDEV 0025	Culture and Diversity in Early Childhood Education	3
Total Units		25.5

Early Childhood Education—Master Teacher

AA or AS Degree

(formerly Child Development Master 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 (p. 250);
- California State University General Education (CSU GE) Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0003	Observation, Documentation and Assessment in ECE	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child and Adolescent Development	3
HDEV 0010	Practicum/Field Experience in Early Childhood Education	4.5
HDEV 0025	Culture and Diversity in Early Childhood Education	3
HDEV 0038	Adult Supervision: Mentoring in ECE Settings	2

Select 6 units in an area of specialization from the following:

HDEV 0011 & HDEV 0012	Infant and Toddler Development and Infant/Toddler Care and Education	6
HDEV 0043 & MUS 0010	Music and Movement for Young Children and Music Fundamentals	
HDEV 0019 & DFST 0001	Exceptional Development: Inclusion of Special Needs Children and American Sign Language I	
HDEV 0021 & HDEV 0022	Psychology of Marriage and Family and The Family	

HDEV 0021 & HDEV 0023	Psychology of Marriage and Family and Dynamics of Parenthood	
HDEV 0029 & HDEV 0044	Storytelling and Puppetry and Introduction to Children's Literature	
HDEV 0029 & HDEV 0046	Storytelling and Puppetry and Language and Literacy	
HDEV 0030 & ART 0002	Creative Process in Children and Two-Dimensional Design Foundations	
HDEV 0030 & ARHI 0101	Creative Process in Children and Art Appreciation	
Total Units		33.5

Early Childhood Education—Site Supervisor

AA or AS Degree

(formerly Child Development—Site Supervisor)

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. 250);
- California State University General Education (CSU GE) Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0003	Observation, Documentation and Assessment in ECE	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child and Adolescent Development	3
HDEV 0010	Practicum/Field Experience in Early Childhood Education	4.5
HDEV 0025	Culture and Diversity in Early Childhood Education	3
HDEV 0038	Adult Supervision: Mentoring in ECE Settings	2
HDEV 0040	Administration and Supervision of Early Childhood Programs	3
HDEV 0041	Advanced Administration of ECE Programs	3
Total Units		33.5

Early Childhood Education Teacher

Certificate of Achievement

(formerly Childhood Development Teacher)

This certificate authorizes the holder to provide service in the care, development and instruction of children in a Title 22 Program. Students may be eligible for application to the Commission on Teacher Credentialing for a Child Development Permit at the Teacher Level.

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0003	Observation, Documentation and Assessment in ECE	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0007	Health, Safety, and Nutrition	3
HDEV 0009	Child and Adolescent Development	3
HDEV 0010	Practicum/Field Experience in Early Childhood Education	4.5
HDEV 0025	Culture and Diversity in Early Childhood Education	3

Select 16 general education units, including at least one course in each of the following areas: 16

Humanities
Social/Behavioral Sciences
Mathematics and/or Natural Sciences
English

Total Units 41.5

Early Childhood Education Associate Teacher

Skills Certificate

Upon completion of the following courses with grades of "C" or better, a student will qualify for an Associate Teacher Skills Certificate. Along with this skills certificate and documentation of the appropriate field experience, it is recommended that students confer with an advisor on how to obtain a Permit through the Commission on Teacher Credentialing. This level of course work authorizes the student to work as a teacher in both state funded child care programs as well as in Title 22, State Department of Health and Human Services programs.

Required Courses

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child and Adolescent Development	3
Total Units		12

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

HDEV 0002	Principles and Practices of Early Childhood Education
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HDEV 0004	Child, Family, and Community
HDEV 0005	Introduction to Curriculum
HDEV 0009	Child and Adolescent 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

HDEV 0002	Principles and Practices of Early Childhood Education
HDEV 0004	Child, Family, and Community
HDEV 0005	Introduction to Curriculum
HDEV 0009	Child and Adolescent 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

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child and Adolescent Development	3
12 HDEV/ECE elective units		
16 general education units		
HDEV 0038	Adult Supervision: Mentoring in ECE Settings	2

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 0043 & MUS 0010	Music and Movement for Young Children and Music Fundamentals
HDEV 0019 & DFST 0001	Exceptional Development: Inclusion of Special Needs Children and American Sign Language I
HDEV 0021 & HDEV 0022	Psychology of Marriage and Family and The Family
HDEV 0021 & HDEV 0023	Psychology of Marriage and Family and Dynamics of Parenthood
HDEV 0029 & HDEV 0044	Storytelling and Puppetry and Introduction to Children's Literature
HDEV 0029 & HDEV 0046	Storytelling and Puppetry and Language and Literacy
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

HDEV 0002	Principles and Practices of Early Childhood Education	3
HDEV 0004	Child, Family, and Community	3
HDEV 0005	Introduction to Curriculum	3
HDEV 0009	Child and Adolescent Development	3
12 HDEV/ECE elective units		
16 general education units		
HDEV 0038	Adult Supervision: Mentoring in ECE Settings	2
HDEV 0040	Administration and Supervision of Early Childhood Programs	3
HDEV 0041	Advanced Administration of ECE Programs	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. 268)

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 Early Childhood Education*Units: 3*

Hours: 54 lecture

Examination of the underlying theoretical principles of developmentally appropriate practice applied to programs, environments, key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, cognitive, social, and creative development in children. Emphasis on the preschool years, developmentally appropriate practices, and professional development. Five hours of observation of programs serving preschool children required. (C-ID ECE 120) (CSU)

HDEV 0003. Observation, Documentation and Assessment in ECE*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

Focus on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. Direct child observations required. (C-ID ECE 200) (CSU)

HDEV 0004. Child, Family, and Community*Units: 3*

Hours: 54 lecture

Examination of the developing child in a societal context focusing on the interrelationship of family, school and community. Emphasis on historical and socio-cultural factors, and processes of socialization and identity development that show the importance of respectful, reciprocal relationships that support and empower families. (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

Examines knowledge and skills related to providing appropriate curriculum and environments for young children, supporting development using observation and assessment strategies, and creating play-based learning environments. Content areas include: language/literacy, social/emotional learning, art/creativity, math/science. (C-ID ECE 130) (CSU)

HDEV 0007. Health, Safety, and Nutrition*Units: 3*

Formerly known as HDEV 6 and 8

Hours: 54 lecture

Introduction to laws, regulations, standards, policies and procedures, and early childhood curriculum related to child health, safety, and nutrition. Key components that ensure physical and mental health and safety for children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating concepts into everyday planning and program development in child care settings and family child care homes. (C-ID ECE 220) (CSU)

HDEV 0009. Child and Adolescent Development*Units: 3*

Hours: 54 lecture

Study of physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors that affect growth and development. 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/Field Experience in Early Childhood Education*Units: 4.5*

Prerequisite: Completion of HDEV 3 and 5 with grades of "C" or better

Advisory: Completion of HDEV 25 with grade of "C" or better

Hours: 144 (54 lecture, 90 laboratory)

Planning and implementation of developmentally appropriate and intentional early childhood teaching competencies under guided supervision. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children. Child centered and interest based, play-oriented approaches to teaching, learning, and assessment; and knowledge of developmentally appropriate curriculum in content areas emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children. Ninety supervised teaching hours outside of the classroom are required. (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. Recommended for Child Development, education, and health career majors. (CSU)

HDEV 0012. Infant/Toddler Care and Education*Units: 3*

Advisory: Concurrent enrollment in or completion of HDEV 95 in an infant/toddler setting (1-3 units)

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. Requires five hours of infant/toddler program observation during daytime hours. (CSU)

HDEV 0013. School Age Child*Units: 3*

Advisory: Completion of HDEV 1 or 9 with grade of "C" or better

Hours: 54 lecture

Study of the child from 6-12 years of age, including physical, cognitive, social, and moral development. Fundamentals of planning educational and recreational programs with an emphasis on developmentally appropriate practice. (CSU)

HDEV 0014. Programs for School Age Children*Units: 3*

Prerequisite: Completion of HDEV 13 with grade of "C" or better

Advisory: Completion of HDEV 1 or 9 with grade of "C" or better

Hours: 90 (36 lecture, 54 laboratory)

Study of principles and standards for school-age child development programs. Emphasis on implementation of recommended practices in supervised laboratory settings. Includes planning and presenting developmentally appropriate activities in all curriculum areas. Meets specialization requirement, with HDEV 13, of Master Teacher Child Development Permit. (CSU)

HDEV 0019. Exceptional Development: Inclusion of Special Needs Children*Units: 3*

Prerequisite: Completion of HDEV 1 or 9 with grade of "C" or better

Hours: 54 lecture

Introduction to the study of children from birth to eight years of age with special needs resulting from atypical physical/motor, cognitive, language/literacy, and social/emotional development. Covers causes and accommodation of the major types of exceptional development, including giftedness, in schools, childcare settings, homes, public and private sectors. Designed for parents, teachers, aides in infant/toddler programs, preschools and K-2 elementary school levels, and other interested students. Emphasis on communication and understanding behavioral dynamics while forming respectful relationships between families, caregivers, and specialists. Approved for continuing education units by the Board of Registered Nursing. (CSU)

HDEV 0021. Psychology of Marriage and Family*Units: 3*

Also known as PSYC 110

Hours: 54 lecture

Study of the meaning and functions of intimacy, marriage, 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 and mate selection, marriage, alternatives to marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

HDEV 0023. Dynamics of Parenthood*Units: 3*

Formerly known as HDEV 23ABCD

Advisory: Completion of HDEV 1 with grade of "C" or better

Hours: 54 lecture

A survey of historical and contemporary attitudes toward parenting. Review of research on child-rearing practices and parent-child relationships. Exploration of current approaches for effective interaction and communication of family members. Emphasis on the influence of personality, developmental stage, family structures, ethnic and cultural factors. (CSU)

HDEV 0025. Culture and Diversity in Early Childhood Education*Units: 3*

Hours: 54 lecture

Study of human diversity as it relates to young children, families, programs, classrooms and teaching. Examination of the development of social identities in diverse societies including oppression and privilege. Explores the meaning, necessity, and benefits of anti-bias education and presents various strategies emphasizing cultural and linguistic approaches supporting all children in becoming competent members of a diverse society. Includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media and schooling. (C-ID ECE 230) (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 0029. Storytelling and Puppetry*Units: 3*

Formerly known as HDEV 17 and 18

Hours: 54 lecture

Storytelling and puppetry explored as a means of enhancing oral language, listening skills and creativity in young children. Examines stories from many cultures. Emphasizes the art of telling stories. Focuses on the methods, materials, and experiences needed to use storytelling and puppetry effectively with children. Hands-on involvement with practical application for teachers, teacher aides, librarians, therapists, recreation leaders, church and youth group leaders, artists, dramatists, and parents. (CSU)

HDEV 0030. Creative Process in Children*Units: 3*

Hours: 54 lecture

Introduction to the aesthetic development and creative expression of children. 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: Mentoring in ECE Settings*Units: 2*

Prerequisite: Completion of the following with grades of "C" or better:

HDEV 1 or 9; and HDEV 2

Hours: 36 lecture

Principles and methods of supervising students, teachers, and other adults in early childhood education settings. Emphasis on the role of experienced teachers who function as leaders, supervisors, and mentors. Meets requirements of Master Teacher Level of Child Development Permits. (CSU)

HDEV 0040. Administration and Supervision of Early Childhood Programs*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

Advisory: Completion of HDEV 3 and 5 with grades of "C" or better

Hours: 54 lecture

Basic aspects of understanding and directing an early childhood education program. Emphasis on implementing state licensing requirements for child care centers. Consideration given to planning the facilities and program, health and safety requirements, policy making, and staff/parent communication. (CSU)

HDEV 0041. Advanced Administration of ECE Programs*Units: 3*

Formerly known as HDEV 41A/41B/41C

Prerequisite: Completion of HDEV 40 with grade of "C" or better

Hours: 54 lecture

Advanced level of child care administration including legal and financial issues related to establishment and operation of early childhood education programs. Emphasis includes: compliance with relevant laws and regulation; developing sound fiscal and regulatory policies relative to the operation of different types of early childhood programs; personnel training, supervision and evaluation; staff development; networking within the community to promote participation and support between professionals in the field; and familiarity with current Early Childhood State Department of Education publications. (CSU)

HDEV 0043. Music and Movement for Young Children*Units: 3*

Hours: 54 lecture

Theoretical perspectives and practical applications of the use of music and movement with children from infancy to age eight in group settings. Emphasis on exploration of music and movement as ways to involve young children with cultural diversity and traditions, creative expression, promotion of an understanding of the connection to healthy living and physical activity, and stimulation of brain development. Methods and materials used in singing, rhythms, creative music, reading and listening, development of music and movement lesson plans, and creation of inexpensive musical instruments. (CSU)

HDEV 0044. Introduction to Children's Literature*Units: 3*

Also known as ENGL 44

Prerequisite: Eligibility for ENGL 1A

Hours: 54 lecture

Examination of classic and contemporary children's literature, including criteria for selection, uses in child development and education, and practices in presentation and analysis. Designed for parents, prospective teachers, aides, child development professionals and students interested in the field of literature for children ages 1-13. (CSU)

HDEV 0046. Language and Literacy*Units: 3*

Prerequisite: Completion of HDEV 2 with grade of "C" or better

Advisory: Completion of HDEV 1 with grade of "C" or better

Hours: 54 lecture

Designed to support early childhood 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 0047. Math and Science in Early Childhood Education*Units: 3*

Prerequisite: Completion of HDEV 2 with grade of "C" or better

Advisory: Completion of HDEV 1 with grade of "C" or better

Hours: 54 lecture

Designed to support early childhood educators of preschool-aged children. Exploration of fundamental math and science concepts and principles of selecting and implementing appropriate math and science activities in an integrated curriculum. Focus on specific strategies and techniques for working with preschool children and connecting their families to the preschool learning environment. (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. 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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**Assistant Professor, Humanities**

B.A., University of California, San Diego
M.A., University of North Carolina

John Keating

Professor, Art/Art History/Humanities
B.A., Gonzaga University
M.F.A., San Francisco Art Institute

Johnnie Terry

**Professor, Humanities/Lesbian, Gay, Bisexual and Transgender Studies/
Philosophy/Women and Gender Studies**
B.A., San Diego State University
M.A., San Diego State University

Liaison Counselor

Reyes Ortega

Degrees/Certificates

Associate Degrees

Humanities—Asian Studies (p. 160)

- Humanities—Diverse Perspectives (p. 160)
- Humanities—General (p. 161)
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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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	
PHED 0055	Fundamentals of Yoga	

PHED 0066	Combative Self Defense
PHED 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	
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 0015	Introduction to Philosophies of Self and Personhood	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
SSCI 0010	Introduction to Ethnic Studies	
SSCI 0013	Dialogues in American Culture	

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	History of Western Art I: Prehistory through the Middle Ages	
ARHI 0120	History of Western Art II: Renaissance through Romanticism	
ARHI 0130	History of Western Art III: Modern through Contemporary	
ARHI 0132	History of Women in Art	
ARHI 0134	History and Aesthetics 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	
DRMA 0013	Introduction to Theater	
DRMA 0020	Play, Performance, and Perception	
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	Introduction to Children's Literature (also HDEV 0044)
ENGL 0045	Introduction to Adolescent 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 0015	Introduction to Philosophies of Self and Personhood
PHIL 0020	Introduction to 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 0050	Introduction to Philosophy through Literature and Film
PHIL 0060	Introduction to Environmental Ethics

PHIL 0065 Introduction to the Philosophy of Science

Total Units**21**

Courses

Understanding course descriptions (p. 268)

HUM 0001. Introduction to Humanities I

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the art, architecture, history, literature, music, religion and philosophy from the ancient through the medieval world. Emphasis on classical Greece and Rome. (CSU, UC)

HUM 0002. Introduction to Humanities II

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the art, architecture, history, literature, music, religion and philosophy of the Western World from the Renaissance to the present. (CSU, UC)

HUM 0003. Introduction to Asian Humanities

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the art, architecture, history, literature, religions and philosophy of Asia with an emphasis on India, China and Japan from ancient times to the present. The Eastern mode of thinking emphasized and compared with those of the West. (CSU, UC)

HUM 0005. Classical Roots of the Contemporary Western World

Units: 3

Formerly known as HUM 300G

Advisory: Eligibility for ENGL 1A

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

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 1A

Hours: 54 lecture

Investigates rituals, ethics, institutional structures and the cultural ethos of world religions including myths, doctrines and sacred texts. Focuses on Tribal Religions, Confucianism/Taoism, Hinduism, Buddhism, Judaism, Christianity, Islam, and related religious movements. (CSU, UC)

HUM 0015. Introduction to Mythology

Units: 3

Advisory: Eligibility for ENGL 1A

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

Hours: 54 lecture

An introduction to the philosophy of atheism, its historical roots, major thinkers, and expressions in art, literature and philosophy. Includes a history of free inquiry and thought, secular humanism, humanistic ethics and scientific naturalism. (CSU, UC)

HUM 0020. Introduction to the Hebrew Bible

Units: 3

Hours: 54 lecture

Introduction to the texts and development of the Torah, Old Testament and Apocrypha through a critical reading of their writings. Includes history, cultural influences, language, authorship, events, personages/characters, ideas, and beliefs of ancient Israel as well as the relationship between Hebrew Scriptures and archaeology, literature, history, current Biblical scholarship criticism, and women's studies. (CSU, UC)

HUM 0021. Introduction to the New Testament

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introduction to the history and culture of the New Testament period (First Century C.E.), methods of critical analysis of Biblical materials, and literary forms and content of the New Testament. 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 0030. Studying and Learning Abroad

Unit: 1

Hours: 18 lecture

Issues of studying abroad including practical concerns of international travel, living and studying in a foreign country, awareness of cross-cultural issues, and knowledge and appreciation of host country, and re-entry issues. (CSU)

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. Students may earn up to a total of 16 units in internship courses (any course numbered 95 and PDEV 94). (CSU-with unit limitation)

HUM 0300H. Italian Culture and Civilization*Units: 3*

Hours: 54 lecture

Introduction to Italian life and culture through the examination of art, literature, architecture, music, films, and popular culture. (CSU)

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.

Interdisciplinary Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

Division Office

V 211, Rocklin Campus

Overview

Interdisciplinary offerings are the cooperative product of a number of faculty members (usually from different departments and disciplines) in an effort to look at a unique topic from various academic and/or experiential backgrounds.

Liaison Counselor

Elena Farrelly

Courses

Understanding course descriptions (p. 268)

INT 0010. Museum Methods*Units: 2-4*

Hours: 72 (18 lecture, 54 laboratory) per 2 units

Purpose, techniques and activities of museum operations. Museum goals and themes; collection acquisition, preparation, preservation, and reproduction for research, exhibition, and storage; exhibit design, implementation, and interpretation; signage, documentation, announcements and publicity. Emphasizes either natural history or art. (CSU)

Italian

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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. A language background should be of intrinsic value. The acquisition of desired practical communication skills in the study of a modern foreign language is the primary objective. This can be accomplished by the oral approach, motivated by lectures and implemented by the language laboratory.

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.

Liaison Counselor

Dale Quadros

Courses

Understanding course descriptions (p. 268)

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 0003. Intermediate Italian - Level I*Units: 4*

Prerequisite: Completion of ITAL 2 or three years of high school Italian with grade(s) of "C" or better

Hours: 72 lecture

Designed for those with previous training in the Italian language. Continues to teach culture and facilitate language acquisition through listening, speaking, reading and writing. Emphasis on speaking, using more complex linguistic structures of the language, and reading and writing. Authentic Italian texts and excerpts from works of Italian authors read and analyzed in the classroom. Continued development of the ability to analyze linguistic structures and reflect on and evaluate cross-cultural differences. (CSU, UC)

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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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. A language background should be of intrinsic value. The acquisition of desired practical communication skills in the study of a modern foreign language is the primary objective. This can be accomplished by the oral approach, motivated by lectures and implemented by the language laboratory.

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.

Liaison Counselors

Sandra Muraki, Dale Quadros

Courses

Understanding course descriptions (p. 268)

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.

Learning Disabilities

Contact Information

Division

Student Services

Dean

Sharon Adams

Division Office

L 102, Rocklin Campus

Department Office

LR 401, Rocklin Campus

Overview

Faculty

Gwen Joy

Professor, Learning Disabilities/Perceptual Training

B.A., University of Redlands

M.S., University of Surrey

Ph.D., University of Bath

Liaison Counselors

Scott Bramlett, Mark Kwoka

Courses

Understanding course descriptions (p. 268)

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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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

Johnnie Terry

Professor, Humanities/Lesbian, Gay, Bisexual and Transgender Studies/Philosophy/Women and Gender Studies

B.A., San Diego State University

M.A., San Diego State University

Liaison Counselors

Elena Farrelly, Dale Quadros

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	General Principles of 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	
SSCI 0013	Dialogues in American Culture	

Total Units

21

Courses

Understanding course descriptions (p. 268)

LGBT 0001. Introduction to LGBT Studies/Queer Theory

Units: 3

Formerly known as HUM 27

Also known as WMST 2

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A broad and general exploration of Queer Theory as an historical consequence of Feminism and Gay and Lesbian Studies. Emphasis on theoretical and philosophical underpinnings of Queer Theory, Social Construction versus Essentialism, Postmodernist theory, politics, LGBT Studies and Queer Culture. (CSU, UC)

LGBT 0002. Queer (LGBTIQ) Film History

Units: 3

Formerly known as HUM 26

Hours: 72 (36 lecture, 36 activity)

Historical representations of 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. (CSU, UC)

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. 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

Select 9 units from the Arts:

9

ARHI 0101	Art Appreciation
ARHI 0110	History of Western Art I: Prehistory through the Middle Ages
ARHI 0120	History of Western Art II: Renaissance through Romanticism
ARHI 0130	History of Western Art III: Modern through Contemporary
ARHI 0132	History of Women in Art
ARHI 0134	History and Aesthetics 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
DRMA 0013	Introduction to Theater
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 0041	The Documentary Film: Argumentative Discourse
ENGL 0042	The Documentary Film
ENGL 0044	Introduction to Children's Literature (also HDEV 0044)
ENGL 0045	Introduction to Adolescent 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
Select 9-12 units from Cultural Studies:	
9-12	
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	Oral Interpretation of Diverse Literatures
COMM 0007	Intercultural Communication
COMM 0010	Survey of Communication Studies
DFST 0003	American Sign Language III
DFST 0004	American Sign Language IV
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	Culture and Diversity in Early Childhood Education
HUM 0003	Introduction to Asian Humanities
HUM 0010	World Religions
ITAL 0003	Intermediate Italian - Level I
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 0015	Introduction to Philosophies of Self and Personhood
PHIL 0027	Introduction to Philosophy of Women in Western Cultures

POLS 0007	Politics of the Developing World - Third World Politics
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
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
WMST 0001	Introduction to Women's Studies
Total Units	18-21

Library Science

Contact Information

Division

Library and Learning Resource Center

Dean

Sabrina Pape

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.

Deirdre Campbell

Professor, Library Science

B.S., University of Arizona
M.L.S., University of Arizona

Patricia Saulsbury

Professor, Library Science

B.A., University of California, Santa Cruz
M.L.I.S., San Jose State University

Christina Sixt

Professor, Library Science

B.A., California State University, Sacramento
M.L.I.S., University of California, Los Angeles

Liaison Counselor

Catherine Morris

Courses

Understanding course descriptions (p. 268)

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. 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

Sciences and Mathematics

Dean

Heather Roberts

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. Assessment testing is available at the Assessment Center in the Counseling Center.

Alternatives to Traditional Lecture Format for Algebra

Some instructors teach algebra using a traditional lecture format while others use platforms that require the use of a computer and/or the Internet. Check the Mathematics Department Web Page at <http://>

math.sierracollege.edu/ to determine the appropriate platform for your learning style.

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."
- It is strongly recommended that students without recent math coursework complete the assessment process. Contact the Assessment-Placement Center for further information.

Faculty

Charles Albright

Assistant Professor, Mathematics

B.A., California State University, Sacramento
B.A., California State University, Sacramento
M.A., California State University, Sacramento

Jacqueline Anderson

Professor, Mathematics

B.A., Westmont College
M.S., University of Nevada, Reno

Daniel Balaguy

Professor, Mathematics

B.A., California State University, Sacramento
M.S., University of Montana

Maile Barron

Professor, Mathematics

B.S., University of California, Davis
M.A.T., University of California, Davis
B.S., California State University, Sacramento

Andreas Bazos

Assistant Professor, Mathematics

B.A., California State University, Sacramento
M.A., University of California, Davis

Charles Buchwald

Professor, Mathematics/Coordinator, Mathematics Center

A.S., Palomar College
B.S., California State University, San Marcos
M.S., California State University, San Marcos

Vicki Day

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B.S., Washington State University
M.A.T., University of California, Davis

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M.S., University of Oregon

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M.S., California State University, Sacramento

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M.S., Washington State University

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Kenneth Johnson

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M.A., University of California, Davis

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Assistant Professor, Mathematics

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M.A., California State University, Sacramento

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B.A., State University of New York at Plattsburgh
B.S., University of North Dakota
M.Ed., University of North Dakota

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Professor, Mathematics

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M.S., California Polytechnic State University, San Luis Obispo

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B.S., California Polytechnic State University, San Luis Obispo
M.A., San Francisco State University

Cliff Myers

Professor, Mathematics

B.S., Portland State University
M.S., Portland State University
M.S., Portland State University

Helene Nehrebecki

Assistant Professor, Mathematics

B.A., Sonoma State University
M.A., Arizona State University

Sabrina Newsome

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A.A., Napa Valley College
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Erika Noffsinger

Assistant Professor, Mathematics

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Mary Beth Pattengale

Professor, Mathematics

B.S., California Polytechnic State University, San Luis Obispo
M.S., California Polytechnic State University, San Luis Obispo

Jill Rafael

Professor, Mathematics

B.S., University of Calgary
M.S., University of Calgary

Mukta Sharma**Assistant Professor, Mathematics**

B.S., Guru Nanak Dev University
 B.E., Guru Nanak Dev University
 M.S., Guru Nanak Dev University

Rebecca Siemers**Professor, Mathematics**

B.S., Iowa State University
 B.S., Iowa State University
 M.S., Stanford University
 Ph.D., University of California, Davis

Donna Smith**Professor, Mathematics**

B.A., Pomona College
 M.A., University of California, Berkeley

Linda Soper**Assistant Professor, Mathematics**

B.A., Andrews University
 M.S., Montana State University

James Sullivan**Professor, Mathematics**

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 M.S., University of California, Davis

Pitt Turner**Assistant Professor, Mathematics**

B.A., University of California, Santa Cruz
 M.A., University of Hawaii, Manoa

Ian Wu**Professor, Mathematics**

B.S., California State University, Chico
 M.A., California State University, Sacramento

Liaison Counselors

Cherie Mathews, Sandra Muraki, Paul Neal

Degrees/Certificates

Associate Degree for Transfer

- Mathematics for Transfer (p. 170)

Associate Degree

- Mathematics (p. 170)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	Elementary 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

View the course progression for Mathematics (PDF) (<http://math.sierracollege.edu/mathtree/mathtree.asp>)

Understanding course descriptions (p. 268)

MATH 0000A. Elementary Algebra

Units: 4-5

Prerequisite: Completion of MATH 582 with grade of "C" or better or placement by matriculation assessment process

Hours: 72 lecture (4 units); 90 lecture (5 units)

Real numbers and their properties, first degree equations and inequalities, graphs of linear equations in two variables, systems of linear equations in two variables, properties of integer exponents, polynomial operations, basic factoring, rational expressions, radical expressions, quadratic equations, and applied problems and problem solving. (not transferable)

MATH 0000B. Plane Geometry

Units: 4

Prerequisite: Completion of MATH A with grade of "C" or better, or placement by matriculation assessment process

Hours: 72 lecture

Study of points, lines, angles, polygons, triangles, similarity, congruence, geometric proofs, area, volume, perimeter, the circle, right triangle trigonometry. (not transferable)

MATH 0000D. Intermediate Algebra

Units: 4-5

Prerequisite: Completion of MATH A with grade of "C" or better or placement by matriculation assessment process

Hours: 72 lecture (4 units); 90 lecture (5 units)

Exponents, radicals, complex numbers, factoring, linear and quadratic equations and inequalities; linear, quadratic, exponential and logarithmic functions; graphing, and systems of equations. (not transferable)

MATH 0000E. Practical Mathematics

Units: 6

Prerequisite: Completion of MATH 582 with grade of "C" or better or placement by matriculation assessment process

Hours: 108 lecture

Practical Mathematics is a one semester course for non-math, non-science majors covering the topics of numeracy, proportional reasoning, algebraic reasoning, trigonometric reasoning, data analysis and critical thinking through real world applications. Students develop the skills needed to apply mathematical and technological skills and procedures to analyze and interpret mathematical data. Algebraic, geometric and trigonometric topics covered include: real numbers and their properties; proportions; measurement of lengths, areas and volumes; first degree equations and inequalities; functional analysis; graphs of linear, quadratic, and exponential equations; systems of equations in two variables; quadratic, exponential, and logarithmic equations; and basic right triangle trigonometry. Not intended for students on the calculus track. (not transferable)

MATH 0008. Trigonometry

Units: 4

Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process

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, vectors, polar coordinates and graphs, polar representations of complex numbers and conic sections. (CSU)

MATH 0010. Problem Solving

Units: 4

Prerequisite: Two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process

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 0012. College Algebra

Units: 4

Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process

Hours: 72 lecture

Study of algebra topics beyond MATH D; including functions, graphs, logarithms, systems of equations, matrices, analytic geometry sequences, mathematical induction, and introduction to counting techniques. (CSU, UC-with unit limitation)

MATH 0013. Elementary Statistics

Units: 4

Prerequisite: Completion of MATH D with grade of "C" or better, or placement by matriculation assessment process, or equivalent

Hours: 72 lecture

Introduction to the basic concepts of statistics. Emphasis on statistical reasoning and application of statistical methods. Areas included: graphical and numerical methods of descriptive statistics; basic elements of probability and sampling; binomial, normal, and Student's t distributions; confidence intervals and hypothesis testing for one and two population means and proportions; chi-square tests for goodness-of-fit and independence; linear regression and correlation; and one-way analysis of variance (ANOVA). (CSU, UC-with unit limitation)

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 8 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: Three years of high school mathematics which includes two years of algebra and one year of geometry; or MATH D and B with grades of "C" or better; or placement by matriculation assessment process

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 0018. The Nature of Mathematics*Units: 3*

Prerequisite: Two years of high school algebra or MATH D with grade of "C" or better, or placement by matriculation assessment process

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 0024. Modern Business Mathematics*Units: 3*

Prerequisite: Two years of high school algebra or MATH D 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)

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 8 with grade of "C" or better, or placement by matriculation assessment process

Hours: 72 lecture

Preparation for calculus. Study of polynomials, rational functions, exponential and logarithmic functions, trigonometric functions, systems of linear equations, matrices, determinants, rectangular and polar coordinates, conic sections, complex number systems, mathematical induction, binomial theorem, and sequences. Recommended for students who plan to take MATH 30. (CSU, UC-with unit limitation)

MATH 0030. Analytical Geometry and Calculus I*Units: 4*

Prerequisite: Completion of MATH 8 and either MATH 12 or 29 with grades of "C" or better, or placement by matriculation assessment process

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. (CSU, UC-with unit limitation)

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) (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 MATH D with grade of "C" or better, or placement by matriculation assessment process

Advisory: Completion of MATH 12 strongly recommended, especially for students who have not recently taken MATH D

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. Not recommended for students with credit for MATH 30. (C-ID MATH 140) (CSU, UC-with unit limitation)

MATH 0581. Arithmetic Review*Units: 4*

Prerequisite: Placement by matriculation assessment process

Hours: 108 (54 lecture; 54 laboratory which may be scheduled TBA)

Basic review of fundamental arithmetic operations with whole numbers, decimals, fractions, ratio and proportion, and percentages. Not open to students who have completed MATH 581S. (not degree applicable)

MATH 0581S. Summer Bridge Arithmetic Review*Units: 3*

Prerequisite: Placement by matriculation assessment process

Hours: 54 lecture

Summer Bridge Program with accelerated curriculum. Basic review of fundamental arithmetic operations with whole numbers, decimals, fractions, ratio and proportion, and percentages. Not open to students who have completed MATH 581. (not degree applicable)

MATH 0582. Pre-Algebra*Units: 4*

Prerequisite: Completion of MATH 581 or 581S with grade of "C" or better or placement by matriculation assessment process

Hours: 108 (54 lecture; 54 laboratory which may be scheduled TBA)

Integrates and utilizes algebraic concepts and skills, such as integers, algebraic equations, polynomials, radicals, factoring and graphing, as well as reviews whole numbers, decimals, fractions, ratio and proportions, exponential notation, percentages, basic geometry and problem solving. (not degree applicable)

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)

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.

Mechatronics

Contact Information

Division

Business and Technology

Dean

Sonja Lolland

Associate Dean

Darlene Jackson

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

Steven Gillette**Professor, Mechatronics**

A.A., College of the Redwoods

A.A., Sierra College

B.S., California State University, Sacramento

M.S., California State University, Northridge

Michael Halbern**Professor, Mechatronics**

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M.A., California State University, Long Beach

Tony Osladil**Professor, Mechatronics**

B.S.E.E., University of Detroit Mercy

Liaison Counselors

Cheryl Axton, Rebecca Ortega, Dale Quadros

Mechatronics Industry Advisory Committee

- Ace Anaya, Manager, Patterson Dental, Roseville
- Bruce Ballard, Engineering Manager, Conquip, Inc., Gold River
- Nick Bruno, President, Harris and Bruno International, Roseville
- Bryan Buchanan, Wastewater Operations Manager, City of Roseville
- Rob Burgard, Representative, SMC Corporation, Auburn
- Nathanael Griesert, Design Engineer, NSC Portable Power Systems, Grass Valley
- Aiden Hebert, Engineer, Mesotech, Rancho Cordova
- David Kennedy, Engineer, Michrom Bioresources, Auburn
- David Long, Engineer, Aerojet, Rancho Cordova
- Harry Lum, Senior Engineer, AJA Video Systems, Grass Valley

- Mitchell Patrick, Maintenance Manager, Vanelli Foods, Rocklin
- Jim Purcell, Engineer, Line 6, Rocklin
- Dan Quarton, Manager, Sierra Pacific Industries, Lincoln
- Mike Robinson, Private Consultant, Grass Valley
- Steve Sanders, Engineer, PACE-Americas, Grass Valley
- Tim Stockwell, Engineer, Hewlett-Packard, Roseville
- David Stroud, Training Manager, Anheuser-Busch, Fairfield
- Carrie Wetter, Recruiting Manager, Union Pacific Railroad, Roseville
- Kay Whitaker, Manager, Ceronix, Inc., Auburn

Degrees/Certificates

Associate Degree

- Mechatronics Technology (p. 174)

Certificate of Achievement

- Mechatronics Technology (p. 174)

Skills Certificate

- Electro-Mechanical (p. 174)

Mechatronics Technology

AA or AS Degree and/or 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. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

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

Required Courses in the Recommended Sequence

MECH 0004	Fundamentals of Mechatronics	4
MECH 0010	Fundamentals of Electronics	4
MECH 0014	Fabrication Techniques	2
MECH 0025	Personal Computer Configuration and Repair	4
MECH 0044	Mechatronic Processes and Materials	2
MECH 0054	Mechatronics System	4
MECH 0090	Microcontroller Embedded Systems	4
Total Units		24

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

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. 268)

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, combining 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, and terminology of computer integrated electronics. Course material is at an elementary technical and mathematical level. (CSU)

MECH 0010. Fundamentals of Electronics

Units: 4

Formerly known as CIE 10

Hours: 126 (54 lecture, 72 laboratory)

A fundamental study of electronic devices, circuits, and systems as applied to audio, video, robotics, and computers. Presented through hands-on, project-based experiments. (CSU)

MECH 0014. Fabrication Techniques

Units: 2

Formerly known as CIE 14

Hours: 72 (18 lecture, 54 laboratory)

Introductory course covering the function and construction of electronic projects and equipment. Includes the design and fabrication of enclosures, single and double-sided printed circuit boards, safe use of power and hand tools, through hole and surface mount soldering, rework techniques, and wiring. (CSU)

MECH 0025. Personal Computer Configuration and Repair*Units: 4*

Formerly known as CIE 25/CIS 25/CST 25

Hours: 108 (54 lecture, 54 laboratory)

Concentrated study of personal computer hardware and operating system software installation, configuration, upgrading, troubleshooting, and repair. Hardware topics include motherboards, peripheral cards, communication protocols and cabling. Software topics include basic input output systems (BIOS) and power on system test (POST) procedures, disk operating system (DOS) and Windows operation essentials, local area network (LAN) fundamentals, and troubleshooting programs. (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 the design, installation and repair of mechatronic systems. Each student will fabricate a final project applying system-based mechatronic principles and skills. (CSU)

MECH 0054. Mechatronics System*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*

Formerly known as CIE 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. 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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

Sarah Cunningham**Assistant Professor, Music**

B.A., California State University, Sacramento

M.M., California State University, Sacramento

Greg McLaughlin

Professor, Music

B.M., California State University, Sacramento

M.A., California State University, Sacramento

Jane Stave Viemeister

Professor, Music

B.M., Cornell University

M.A., University of Iowa

M.F.A., University of Iowa

Ph.D., University of Iowa

Liaison Counselor

Florence Charlie

Degrees/Certificates

Associate Degree for Transfer

- Music for Transfer (p. 176)

Associate Degree

- Music (p. 176)

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's 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 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
- completion of the California State University-General Education-Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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 (4 semesters, 1 unit each semester)	4
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 **26**

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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
MUS 0012A	Survey of Music History and Literature to 1750	3
MUS 0012B	Survey of Music History and Literature from 1750 to Present	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	
Total Units	27

Courses

Understanding course descriptions (p. 268)

MUS 0002. Music Appreciation

Units: 3

Hours: 54 lecture

Foundation course recommended for all students seeking a basis for the understanding and enjoyment of music. Discussion of music elements, orchestral instruments, vocabulary, and historical styles and periods using time-proven masterworks. (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: 44 (18 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: 44 (18 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: 44 (18 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; basic properties of sound; intervals; diatonic scales and triads; diatonic chords, basic cadential formulas and phrase structure; dominant seventh; figured bass symbols; and non-harmonic 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

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

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in MUS 10

Advisory: Completion of MUS 40A with grade 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

Incorporates the concepts from MUS 6B. In addition, through writing and analysis, includes: introduction to chromatic harmony; secondary/applied chords; modulation; borrowed chords; introduction to Neapolitan and augmented-sixth chords. (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

Incorporates the concepts from MUS 9A. In addition, through writing and analysis, includes: post-Romantic techniques such as borrowed chords and modal mixture, chromatic mediant, Neapolitan and augmented-sixth chords, 9th, 11th and 13th chords, altered chords and dominants; and 20th century techniques such as: Impressionism, tone rows, set theory, pandiatonicism and polytonalism, 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*

Hours: 54 lecture

Study of the history of Western art music from antiquity through the Baroque Era including the influences of the Catholic Church, contributions of various personalities and cultures with selected readings, recordings, and score study. (CSU, UC)

MUS 0012B. Survey of Music History and Literature from 1750 to Present*Units: 3*

Hours: 54 lecture

Study of the history of Western art music from the end of the Baroque era to the present, including contributions of other cultures with selected readings and recordings. (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 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*

Prerequisite: Completion of MUS 14 with grade of "C" or better

Advisory: Completion of MECH 10 with grade of "C" or better

Hours: 72 (54 lecture, 18 laboratory)

Studio production techniques with added training on close miking of individual instruments. Coverage of analogue and digital multitrack recording techniques. Increased opportunity for practical implementation of signal processing techniques and use of related equipment such as multi FX and dynamics processors. Small group multitrack projects required. (CSU)

MUS 0025. Introduction to Music Business*Units: 3*

Advisory: Completion of BUS 20 with grade of "C" or better

Hours: 54 lecture

Focus on the business side of the music industry including marketing, publishing, copyrights and licensing, and dealing with unions, guilds, artists and managers. Following a song from inception to production including recordings, contracts and merchandising. Exploration of non-performance career options in music. (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 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*

Prerequisite: Eligibility for ENGL 50 or ENGL N or equivalent

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*

Hours: 54 (18 lecture, 36 laboratory)

Explores the literature and performance practices of vocal ensembles from the Renaissance to the present. Audition for vocal placement required. Public performances, festivals, and field trips required. May be taken four times for credit. (CSU, UC)

MUS 0046. Jazz Ensemble*Unit: 1.5*

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. (CSU, UC)

MUS 0047. Vocal Jazz Ensemble*Unit: 1.5*

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. (CSU, UC)

MUS 0048. Concert Choir*Unit: 1.5*

Advisory: Students audition to identify vocal type

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. (CSU, UC)

MUS 0049. Jazz Improvisation Performance Ensemble*Unit: 1.5*

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. (CSU, UC)

MUS 0050. Wind Ensemble*Unit: 1.5*

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. (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*

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. (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 songs, and major and minor scales. These techniques applied to songs 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 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)

- Through the study of scale construction and key signatures, class piano students will be able to be functional in their scale playing of major and minor scales up to four flat key signature and four sharp key signatures, playing scales in two octaves with both hands at a steady tempo.
- Apply chanting and/or counting techniques to an example of rhythmic notation in common time.

- Take melodic and rhythmic dictation of four-measure patterns. Melodies are all diatonic with some altered notes in simple meters.
- Identify various intervals for their qualities (major, minor, augmented and diminished in notational form as well as their aural form.
- Compare and contrast instrumental music of the Renaissance with instrumental music of the Baroque, describing historical origins and developments of representative instruments.
- Define and identify four properties of music sound: pitch, dynamics, tone color and rhythm (duration).
- Acquire physical technical skills to play appropriate repertoire.

Natural Science Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;

- Intersegmental General Education Transfer Curriculum (IGETC) (p. 257).

Required Courses

Select 18 units from the following: 18

AGRI 0198	Food, Society and the Environment
AGRI 0221	Introduction to Soil Science
ANTH 0001	Physical Anthropology
ANTH 0001L	Physical 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 0007A	Human Anatomy I
BIOL 0007B	Human Anatomy II
BIOL 0008A	Microbiology I
BIOL 0008B	Microbiology II
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 (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
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 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESS 0001	The Environment and the Human Impact
ESS 0010	Conservation of Natural Resources
GEOG 0001	Physical Geography
GEOG 0001L	Physical Geography Laboratory
GEOG 0004	Weather and Climate
MATH 0008	Trigonometry
MATH 0012	College Algebra
MATH 0013	Elementary Statistics
MATH 0016A	Calculus for Social and Life Sciences
MATH 0016B	Calculus for Social and Life Sciences
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 0011	Physical Science 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

Total Units 18

Nursing Assistant

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

Associate Dean

Nancy Schwab

Division Office

V 211, Rocklin Campus

Department Office

RN1 100, Rocklin Campus

Department Phone

(916) 660-8300

Overview

The Nursing Assistant courses are designed to prepare students for employment and direct patient care in long term care facilities. There are no degree patterns or transfer majors in this area. Students desiring eligibility for certification must maintain grades of "C" or better in Nursing Assistant courses.

A physical exam and proof of freedom from common communicable diseases by immunization and/or serological testing is required (at the student's expense) prior to the patient care experience as mandated by the state.

Drug testing and background screening are required. Students must be fingerprinted and submit a Declaration of Conviction/No Conviction form for the Department of Health Services prior to entrance to clinical facility.

Students must obtain an approved uniform and required patient care equipment, obtain Basic Life Support certificate from the American Heart Association designated for Healthcare Providers and be responsible for transportation to and from clinical facilities.

Liaison Counselor

Terri Maddux

Courses

Understanding course descriptions (p. 268)

NRSA 0003. Precertification Nursing Assistant Training*Units: 5.5*

Prerequisite: Completion of ENGL 50 and ENGL A, or ENGL N, with grades of "C" or better or placement by matriculation assessment process; or completion of ESL 540W, 540R, 25G, and 25L with grades of "C" or better, or placement by ESL matriculation assessment process

Hours: 189 (54 lecture, 135 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

Sciences and Mathematics

Dean

Heather Roberts

Associate Dean

Nancy Schwab

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

Sharon Bateson**Professor, Nursing**

B.S., University of Minnesota, Twin Cities

M.S., University of Phoenix

Marlene Feldscher**Professor, Nursing**

R.N., Rockland State Hospital School of Nursing

B.S.N., Dominican College of Blauvelt

M.S.N., University of California, San Francisco

Dianna Hylton**Assistant Professor, Nursing**

B.A., California State University, Sacramento

B.A., California State University, Sacramento

M.S., California State University, Sacramento

Laura Lind**Professor, Nursing**

B.S., California State University, Dominguez Hills

M.S., California State University, Sacramento

Joni Matson**Assistant Professor, Nursing**

A.D.N., American River College

B.S.N., California State University, Dominguez Hills

M.S.N., California State University, Dominguez Hills

Sabina Privett-Pokorney

Professor, Nursing

F.N.P., University of California, Davis

M.S., University of Phoenix

Liaison Counselor

Terri Maddux

Nursing Advisory Committee

- Maureen Bauman, L.C.S.W., M.P.A., Placer County Department of Health and Human Services, Auburn
- Cecilia Brownlee, R.N., B.S.N., Sutter Auburn Faith Hospital
- Kim Cole, R.N., Sutter Roseville Medical Center
- Kay Jelten, R.N., Department of Nursing Education, Sutter Memorial Hospital, Sacramento
- Cheryl Kenner, R.N., M.S.N., Kaiser Permanente, Roseville
- Valentina Koga, R.N., Oak Ridge Health Care Center, Roseville
- Kathy Krejci, R.N., C.N.O., Marshall Hospital, Cameron Park
- Allyson Mason-Herr, Kaiser Permanente, Roseville
- Debra Meldvelt, Health Professions High School, Sacramento
- Michelle Miranda, Sutter Health Sacramento Region
- Kathy Morris, R.N., D.S.D., Golden Empire Convalescent Hospital, Grass Valley
- Barbara Nelson, C.N.E., Sutter Roseville Medical Center
- Jason Pollack, Oak Ridge Health Care Center, Roseville
- Lisbeth Powell, R.N., B.S.N., C.C.E., Marshall Hospital, Cameron Park
- Annette Smith-Dohring, Workforce Development, Sutter Health Sacramento Sierra Region
- Jodi Tofanelli, Sutter Roseville Medical Center
- Caroline Waters, R.N., M.S.N., Kaiser Permanente, Sacramento
- Linda Zorn, Health Workforce Initiative, Chico

Degrees/Certificates

Associate Degree

- Registered Nursing (p. 184)

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:

BIOL 0004	Microbiology (OR) ¹	5
or BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II	
BIOL 0005	Human Anatomy (OR) ¹	4-5
or BIOL 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II	
BIOL 0006	Human Physiology ¹	5
ENGL 0001A	Introduction to Composition	3
HDEV 0001	Human Development through the Lifespan	3
NUTF 0010	Principles of Nutrition ¹	3
PSYC 0100	General Principles of Psychology	3

Demonstrated reading proficiency by one of the following:

ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0011	Analytical and Critical Thinking in Reading
ENGL 0050	Mastering College Academic Literacy

ENGL 0000N	Integrated Reading and Composition
ESL 0030C	Academic Reading and Writing
ESL 0030R	Advanced Reading and Vocabulary
PHIL 0004	Introduction to Critical Thinking

Eligibility for ENGL 0011 based on course placement and eligibility results

A bachelor's degree or higher from a regionally accredited institution

Demonstrated mathematics proficiency by one of the following:

MATH 0000A	Elementary Algebra
MATH 0000D	Intermediate Algebra
MATH 0000E	Practical Mathematics
MATH 0012	College Algebra
MATH 0013	Elementary 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

Two semesters of high school algebra or higher level mathematics

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.

COMM 0001	Fundamentals of 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. 183).

Registered Nursing

AA or 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 257).

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

BIOL 0004	Microbiology (OR)	5
or BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II	
BIOL 0005	Human Anatomy (OR)	4-5
or BIOL 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II	
BIOL 0006	Human Physiology	5

COMM 0001	Fundamentals of Public Speaking	3
ENGL 0001A	Introduction to Composition	3
HDEV 0001	Human Development through the Lifespan	3
NUTF 0010	Principles of Nutrition	3
PSYC 0100	General Principles of Psychology	3
SOC 0001	Introduction to Sociology	3
or ANTH 0002	Cultural Anthropology	

Select one of the following: 0-6

MATH 0000A	Elementary Algebra	
MATH 0000D	Intermediate Algebra	
MATH 0000E	Practical Mathematics	
MATH 0012	College Algebra	
MATH 0013	Elementary 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	

Two semesters of high school algebra or higher level mathematics

Registered Nursing Courses¹

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

Total Units 76-83

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. 268)

NRSR 0013. Transition from LVN to RN

Units: 2

Prerequisite: Admission to ADN program with advanced standing
Hours: 72 (18 lecture, 54 laboratory)

Designed for vocational nurses who are admitted to the registered nursing program at Sierra College. Provides strategies to integrate the student into the RN program and its philosophy and curricular framework. (pass/no pass grading) (not transferable)

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 or 8A/8B, 5 or 7A/7B, 6, NUTF 10, HDEV 1, PSYC 100, MATH A, and ENGL 1A with grades of "C" or better; eligibility for ENGL 11

Advisory: Individual passing score of 75% or greater in each area of the Test of Essential Academic Skills (TEAS) supports successful matriculation through the ADN program

Hours: 398 (98 lecture, 300 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 elderly patients. 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 of NRSR 21 with grade of "C" or better

Hours: 390 (106 lecture, 284 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 or 8A/8B, 5 or 7A/7B, 6, NUTF 10, HDEV 1, PSYC 100, MATH A, and ENGL 1A with grades of "C" or better; Completion of or concurrent enrollment in COMM 1 and SOC 1 or ANTH 2 with grades of "C" or better; eligibility for ENGL 11

Hours: 386 (104 lecture, 282 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 (100 lecture, 296 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. During the first ten weeks, clinical experience takes place in the medical-surgical and maternal newborn settings under the direct supervision of the faculty. The final six weeks encompass the completion of a pre-licensure preceptorship with a registered nurse in the medical-surgical clinical setting. (letter grade only) (CSU)

NRSR 0095. Internship in Registered Nursing*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. 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 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 health 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 lifelong learning.
- Pass the National Council Licensure Examination for Registered Nurse NCLEX-RN exam on first attempt.

Nutrition and Food Science

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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

Liaison Counselors

Terri Maddux, Nancy Martinis

Nutrition, Food Science, and Fitness Advisory Committee

- Mary Conway, Professor, Physical Education, Sierra College
- Clare Dendinger, Emeritus Professor, Nutrition and Food Science, Sierra College
- Kevin Fong, Head Trainer, Spare Time, Inc., Elk Grove
- Sara Heard, Part-time Professor, Physical Education, Sierra College
- Judith Kreft, Part-time Professor, Physical Education, Sierra College
- Mithia Mukutmoni, Professor, Nutrition and Food Science, Sierra College
- Mike Putnam, Regional Fitness Manager, California Family Fitness, Orangevale

Degrees/Certificates

Associate Degree for Transfer

- Nutrition and Dietetics for Transfer (p. 187)

Certificate of Achievement

- Nutrition and Fitness (p. 187)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

BIOL 0004	Microbiology (OR)	5
or BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II	
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	General Principles of Psychology	3
Total Units		29-30

Nutrition and Fitness**Certificate of Achievement**

(formerly Nutrition and Fitness Trainer)

This certificate program provides a comprehensive understanding of the relationships between food, physical fitness and health. 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

NUTF 0005	Food Preparation for Nutrition and Life Fitness	3
or BUS 0120	Introduction to Marketing	
NUTF 0010	Principles of Nutrition	3
NUTF 0014	Nutrition for Physical Performance	3
PHED 0003A	Basic Aerobic Training with Fitness Equipment	1.5
PHED 0005A	Weight Training	1.5
PHED 0032	ACE Personal Trainer Preparation	3
PHED 0083	Physiology of Fitness	3
PHED 0085	Techniques of Fitness Instruction	3
Total Units		21

Courses

Understanding course descriptions (p. 268)

NUTF 0005. Food Preparation for Nutrition and Life Fitness

Units: 3

Advisory: Eligibility for ENGL 1A

Hours: 90 (36 lecture, 54 laboratory)

Course focuses on the application of food science principles. Ingredient function and interaction, food preparation techniques, sensory evaluation, food safety and sanitation, and nutrient composition of foods emphasized. Modification of some recipes to adhere to current dietary guidelines. (C-ID NUTR 120) (CSU)

NUTF 0010. Principles of Nutrition

Units: 3

Advisory: Eligibility for ENGL 1A

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. Nutrition for Physical Performance*Units: 3*

Prerequisite: Completion of NUTF 10 with grade of "C" or better

Hours: 54 lecture

A comprehensive study of essential nutrients in food and supplements, their function and utilization during activities involving muscle strength, muscle endurance, cardiopulmonary fitness, and flexibility. (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. 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.

Perceptual Training

Contact Information

Division

Student Services

Dean

Sharon Adams

Division Office

L 102, Rocklin Campus

Department Office

LR 401, Rocklin Campus

Overview

The Perceptual Training department provides individualized programs for learning disabled students.

Faculty

Gwen Joy**Professor, Learning Disabilities/Perceptual Training**

B.A., University of Redlands

M.S., University of Surrey

Ph.D., University of Bath

Liaison Counselors

Scott Bramlett, Mark Kwoka

Courses

Understanding course descriptions (p. 268)

PRCP 0601. Visual Perceptual Skills*Units: 0.5-1*

Hours: 27 laboratory per .5 unit

Develops visual perceptual skills using multi-sensory approaches to learning. Promotes ability to process visual information by improving tracking, fusion, peripheral vision, perceptual speed, and visual memory. Designed for students with learning disabilities. Students must complete a Vision Screening administered by a Learning Disabilities Specialist and be approved for enrollment by the instructor. (pass/no pass grading) (not degree applicable)

Program Student Learning Outcome (PSLO)

- Identify and apply visual perceptual skills strategies appropriate for academic success.

Personal Development

Contact Information

Division

Student Services

Dean

Sharon Adams

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

Cheryl Axton**Professor, Counseling**

B.A., Sonoma State University

M.A., Chapman University

Elena Farrelly**Professor, Counseling**

B.A., State University of New York at Albany

M.S., State University of New York at Albany

Ruth Flores**Professor, Extended Opportunity Programs and Services Counseling**

B.A., California State University, Sacramento

M.S., California State University, Sacramento

Tim Haenny**Professor/Coordinator, Campus Life**

A.A., Sierra College

B.A., California Polytechnic State University, San Luis Obispo

M.A., California Polytechnic State University, San Luis Obispo

Jennifer Hurst-Crabb**Professor, Counseling**

B.A., Sonoma State University

M.A., John F. Kennedy University

Mark Kwoka**Professor, Disabled Student Programs and Services Counseling**

B.S., Oregon State University

M.S., California State University, Sacramento

Susie Le**Professor, Extended Opportunity Programs and Services Counseling**

B.A., California State University, Sacramento

M.S., California State University, Sacramento

Terri Maddux**Professor, Counseling**

B.A., California State University, Sacramento

M.A., Chapman University

Nancy Martinis**Professor, Counseling**

B.A., California State University, Sacramento

M.S., National University

Catherine Morris**Professor, Counseling**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Paul Neal**Professor, Counseling**

B.S., Xavier University of Louisiana

M.A., National University

Ed.D., University of La Verne

Brook Oliver**Professor, Counseling**

B.A., California Polytechnic State University, San Luis Obispo

M.S., California State University, Hayward

Rebecca Ortega**Professor, Counseling**

B.A., San Jose State University

M.A., San Jose State University

Reyes Ortega**Professor, Counseling**

B.A., San Jose State University

M.A., San Jose State University

M.A., San Jose State University

Ph.D., University of Nevada, Reno

Liaison Counselors

Elena Farrelly, Brook Oliver

Courses

Understanding course descriptions (p. 268)

PDEV 0001. College Success*Units: 3*

Hours: 54 lecture

Strategies for creating success in college, life and career. Academic methods for test-taking, memory improvement, note-taking, critical thinking, and research skills. Techniques for effective time management, goal setting, increased self-awareness, motivation, communication and stress reduction. (CSU, UC-with unit limitation)

PDEV 0006. Career Planning*Units: 3*

Hours: 54 lecture

Individual assessments of personality, interests, values, and skills to help identify appropriate careers and college majors. Occupational research, research on educational requirements, goal setting, decision-making, and job search strategies; including resume writing and interviewing. (CSU)

PDEV 0008. Introduction to College*Units: 0.5-2*

Hours: 9 lecture per .5 unit

Introduction to higher education, the college catalog, college terms, degree/certificate requirements, student resources, student success practices, steps to choosing a major and 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: 15 (3 lecture, 12 activity) 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

Leadership in student government, campus clubs and non-academic contexts. Application of practical leadership skills on out-of-class projects; includes planning and running effective meetings, parliamentary procedure, group leadership and motivation techniques. (CSU)

PDEV 0070. Stress and Well Being*Units: 3*

Hours: 54 lecture

A review of the causes, effects and solutions for stress. Explores the relationship between the psychological and socio-cultural factors. Coping techniques include meditation, cognitive strategies and the practice of wellness. (CSU, UC)

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. 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 each 60 hours of non-paid work, or each 75 hours of paid 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 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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Martin**Professor, Philosophy**

B.A., University of California, Santa Cruz

M.A., University of North Texas

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

B.A., San Diego State University

M.A., San Diego State University

Liaison Counselors

Elena Farrelly, Dale Quadros

Degrees/Certificates

Associate Degree for Transfer

- Philosophy for Transfer (p. 190)

Associate Degree

- Philosophy (p. 191)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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	Introduction to 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 0015	Introduction to Philosophies of Self and Personhood	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0050	Introduction to Philosophy through Literature and Film	
PHIL 0060	Introduction to Environmental Ethics	

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

PHIL 0012	Introduction to Symbolic Logic	3
PHIL 0020	Introduction to 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 0015	Introduction to Philosophies of Self and Personhood	
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	
PHIL 0030	Introduction to Social and Political Philosophy	
PHIL 0050	Introduction to Philosophy through Literature and Film	
PHIL 0060	Introduction to Environmental Ethics	
PHIL 0065	Introduction to the Philosophy of Science	

Total Units 21

Courses

Understanding course descriptions (p. 268)

PHIL 0002. Introduction to Philosophy: Ethics

Units: 3

Advisory: Eligibility for ENGL 1A

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

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A study of the relationship between logic and language. Emphasis on informal fallacies, deductive and inductive logic. Emphasizes the elements of the argumentative essay. (CSU, UC)

PHIL 0006. Introduction to Philosophy: Knowledge and Reality*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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, immortality, the problem of evil, miracles, the rationality of religious belief, theories about the nature and function of the language of religion, and religious pluralism. (CSU, UC)

PHIL 0012. Introduction to Symbolic Logic*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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 0015. Introduction to Philosophies of Self and Personhood*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

An examination of rival theories of personhood from various philosophical, religious and scientific perspectives. Includes Confucian, Hindu, Buddhist and Judeo-Christian conceptions of personhood, the philosophical views represented by Plato, Kant, Marx, and Sartre, as well as the psychological views represented by Freud, Skinner, and Lorentz. (CSU, UC)

PHIL 0020. Introduction to Ancient Greek Philosophy*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A study of the rise of philosophy in ancient Greece: Milesian philosopher-scientists, Socrates, Plato, Aristotle, Stoics, Skeptics, and Epicureans. (C-ID PHIL 130) (CSU, UC)

PHIL 0021. History of Modern Philosophy*Units: 3*

Advisory: Eligibility for ENGL 1A

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 1A

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*

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 0050. Introduction to Philosophy through Literature and Film*Units: 3*

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

Introductory exploration of philosophical themes through various genres of literature and film. Topics include: knowledge, truth, personal identity, ethics, justice, religious belief and free will. (CSU, UC)

PHIL 0060. Introduction to Environmental Ethics*Units: 3*

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 1A

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)

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
Rebecca Bocchicchio

Associate Deans
Anne Fleischmann, Susan Lucyga

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
Assistant Professor, Photography
B.F.A., Art Center College of Design
M.F.A., San Jose State University

Rebecca Gregg
Professor, Photography/Applied Art and Design
B.S., University of Texas, Austin
M.S., California State University, Los Angeles

Randy Snook
Professor, Photography/Applied Art and Design
B.A., California State University, Sacramento
M.F.A., Lesley University Art Institute of Boston

Liaison Counselors

Brian Gosney, Nancy Martinis

Degrees/Certificates

Associate Degree

- Photography (p. 193)

Certificate of Achievement

- Photography (p. 194)

Skills Certificates

- Alternative Processes in Photography (p. 194)
- Color Photography (p. 194)
- Digital Imaging (p. 194)
- Landscape Photography (p. 195)

- Narrative Photography (p. 195)
- Photographic Processes (p. 195)
- Portrait, Fashion and Wedding Photography (p. 195)

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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

PHOT 0010	History and Aesthetics of Photography (also ARHI 0134)	3
PHOT 0060A	Elementary Photography	3
PHOT 0060B	Intermediate Photography	3
PHOT 0065 or PHOT 0085	Documentary Photography Photojournalism	2-3
PHOT 0070A	Advanced Photography	3
PHOT 0075	Introduction to Digital Imaging (also AAD 0075)	3

Select 7-9 units from the following:

AAD 0020	Portfolio Development and Presentation	3
AAD 0079	Introduction to Video Production	3
ART 0004A	Drawing I	3
PHOT 0028	Independent Study (up to 1 unit)	1
PHOT 0030	Photographing Works of Art (also AAD 0030)	3
PHOT 0061A	Photography Laboratory Experience: Elementary	3
or PHOT 0061B	Photography Laboratory Experience: Intermediate	3
or PHOT 0071A	Photography Studio Experience	3
or PHOT 0071B	Photography Studio Experience: Advanced	3
PHOT 0065	Documentary Photography	3
PHOT 0070B	Advanced Photography	3
PHOT 0076	Advanced Projects in Digital Imaging (also AAD 0076)	3
PHOT 0078	Digital Photography	3
PHOT 0080	Color Photography	3
PHOT 0085	Photojournalism	3
PHOT 0088	Business Practices for Photographers	3
PHOT 0090B	Field Workshop: Cityscape ¹	3
or PHOT 0090G	Pinhole Photography Workshop	3
or PHOT 0090H	Documentary Field Workshop	3
or PHOT 0090I	Night Photography Field Workshop	3
or PHOT 0090J	Photojournalism Field Workshop	3
or PHOT 0090L	Field Workshop: Landscape	3

or PHOT 0090MAutobiographical Photography
 or PHOT 0090NField Workshop: Color Nature Photography
 or PHOT 0090PWorkshop: Portraiture
 or PHOT 0090T Travel Photography Field Workshop

PHOT 0092	Alternative Processes
PHOT 0095	Internship in Photography (up to 2 units)

Total Units **24-27**

¹ Only 2 units total may be taken from the PHOT 90B-90T workshop courses.

Photography

Certificate of Achievement

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

Required Courses

PHOT 0010	History and Aesthetics of Photography (also ARHI 0134)	3
PHOT 0060A	Elementary Photography	3
PHOT 0065	Documentary Photography	2-3
or PHOT 0085	Photojournalism	
PHOT 0070A	Advanced Photography	3
PHOT 0075	Introduction to Digital Imaging (also AAD 0075)	3
PHOT 0078	Digital Photography	3
PHOT 0088	Business Practices for Photographers	3

Select 9 units from the following: 9

AAD 0020	Portfolio Development and Presentation
AAD 0079	Introduction to Video Production
ART 0004A	Drawing I
PHOT 0028	Independent Study (up to 1 unit)
PHOT 0030	Photographing Works of Art (also AAD 0030)
PHOT 0060B	Intermediate Photography
PHOT 0061A	Photography Laboratory Experience: Elementary
or PHOT 0061B	Photography Laboratory Experience: Intermediate
or PHOT 0071A	Photography Studio Experience
or PHOT 0071B	Photography Studio Experience: Advanced
PHOT 0065	Documentary Photography
PHOT 0070B	Advanced Photography
PHOT 0076	Advanced Projects in Digital Imaging (also AAD 0076)
PHOT 0080	Color Photography
PHOT 0085	Photojournalism
PHOT 0090B	Field Workshop: Cityscape ¹
or PHOT 0090G	Pinhole Photography Workshop
or PHOT 0090H	Documentary Field Workshop
or PHOT 0090I	Night Photography Field Workshop
or PHOT 0090J	Photojournalism Field Workshop
or PHOT 0090L	Field Workshop: Landscape
or PHOT 0090MA	Autobiographical Photography
or PHOT 0090N	Field Workshop: Color Nature Photography
or PHOT 0090P	Workshop: Portraiture

or PHOT 0090T Travel Photography Field Workshop

PHOT 0092	Alternative Processes
PHOT 0095	Internship in Photography (up to 2 units)

Total Units **29-30**

¹ Only 2 units total may be taken from the PHOT 90B-90T workshop courses.

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

PHOT 0060B	Intermediate Photography	3
PHOT 0092	Alternative Processes	3

Select 1 unit from the following: 1

PHOT 0061B	Photography Laboratory Experience: Intermediate
PHOT 0090G	Pinhole Photography Workshop

Total Units **7**

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

Select 10 units from the following: 10

PHOT 0030	Photographing Works of Art (also AAD 0030)
PHOT 0075	Introduction to Digital Imaging (also AAD 0075)
PHOT 0078	Digital Photography
PHOT 0080	Color Photography
PHOT 0090B	Field Workshop: Cityscape (up to 1 unit)
PHOT 0090I	Night Photography Field Workshop (up to 1 unit)
PHOT 0090L	Field Workshop: Landscape (up to 1 unit)
PHOT 0090N	Field Workshop: Color Nature Photography (up to 1 unit)
PHOT 0090T	Travel Photography Field Workshop (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

PHOT 0075	Introduction to Digital Imaging (also AAD 0075)	3
PHOT 0076	Advanced Projects in Digital Imaging (also AAD 0076)	3
PHOT 0078	Digital Photography	3
PHOT 0080	Color Photography	3

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

Select 8 units from the following: 8

PHOT 0078	Digital Photography
PHOT 0080	Color Photography
PHOT 0090B	Field Workshop: Cityscape (up to 1 unit)
PHOT 0090L	Field Workshop: Landscape (up to 1 unit)
PHOT 0090N	Field Workshop: Color Nature Photography (up to 1 unit)
PHOT 0090T	Travel Photography Field Workshop (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

Select 11 units from the following: 11

PHOT 0060B	Intermediate Photography
PHOT 0065	Documentary Photography
PHOT 0080	Color Photography
or AAD 0079	Introduction to Video Production
PHOT 0085	Photojournalism
PHOT 0090H	Documentary Field Workshop (up to 1 unit)
PHOT 0090J	Photojournalism Field Workshop (up to 1 unit)
PHOT 0090M	Autobiographical Photography (up to 1 unit)
PHOT 0090T	Travel Photography Field Workshop (up to 1 unit)

Total Units 11

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

Select 12 units from the following: 12

PHOT 0030	Photographing Works of Art (also AAD 0030)
PHOT 0060B	Intermediate Photography
PHOT 0075	Introduction to Digital Imaging (also AAD 0075)
PHOT 0078	Digital Photography
PHOT 0080	Color Photography
PHOT 0090G	Pinhole Photography Workshop (up to 1 unit)
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

Select 13 units from the following: 13

PHOT 0070A	Advanced Photography
PHOT 0070B	Advanced Photography
PHOT 0078	Digital Photography
PHOT 0088	Business Practices for Photographers
PHOT 0090H	Documentary Field Workshop (up to 1 unit)
PHOT 0090J	Photojournalism Field Workshop (up to 1 unit)
PHOT 0090P	Workshop: Portraiture (up to 1 unit)

Total Units 13

Courses

Understanding course descriptions (p. 268)

PHOT 0010. History and Aesthetics of Photography

Units: 3

Also known as ARHI 134

Hours: 54 lecture

Historical and thematic survey of photography as an art form and communication tool from its invention to the present. Explores various critical perspectives including aesthetic and design principles, influential themes, periods, and photographers. Investigates technical considerations, photography's role in the development of 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 0030. Photographing Works of Art*Units: 0.5*

Also known as AAD 30

Hours: 13 (7 lecture, 6 laboratory)

Methods and procedures involved in reproducing works of art into digital files, prints, or slides for cataloging, portfolios, or publication. Covers equipment needed for both artificial and natural light situations, camera considerations, proper exposure, and presentation of copy work for both two-dimensional and three-dimensional art. Students must furnish digital or film camera, processing, storage and presentation materials. (CSU)

PHOT 0060A. Elementary Photography*Units: 3*

Hours: 72 (36 lecture, 36 activity)

Aesthetic use of digital and film cameras. Elements of design and influence of photography as an art form explored. Topics include subject selection, exposure control, composition, lighting, digital and film camera usage, film development, enlarging, print finishing, presentation, and responses to photographs within framework of historical and current perspectives. Students must furnish digital storage media, film and photographic printing paper. Providing an interchangeable lens digital or film camera recommended but not required. (CSU, UC)

PHOT 0060B. Intermediate Photography*Units: 3*

Prerequisite: Completion of PHOT 60A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Technical and experimental aspects of black and white photographic tools and techniques stressing the creative use of photography. Topics include creative camera and darkroom experimentation, medium format and toy cameras, macro photography, archival permanence and the handmade book. Students must furnish film, paper and presentation materials. (CSU, UC)

PHOT 0061A. Photography Laboratory Experience: Elementary*Units: 0.5-1*

Formerly known as PHOT 61

Corequisite: Concurrent enrollment in PHOT 60A

Hours: 27 laboratory per .5 unit

Photography laboratory practice and production. Provides individual assistance with projects requiring digital image editing, film processing and darkroom printing. Optional photographic laboratory course to accompany PHOT 60A. (not transferable)

PHOT 0061B. Photography Laboratory Experience: Intermediate*Units: 0.5-1*

Corequisite: Concurrent enrollment in PHOT 60B

Hours: 27 laboratory per .5 unit

Photography laboratory practice and production. Provides individual assistance with projects requiring intermediate level film processing and darkroom printing. Optional photographic laboratory course to accompany PHOT 60B. (not transferable)

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)

Photographic essay as a focused body of work. Historical origins and cultural impact of documentary photography. Contemporary practitioners, organization of visual essays, and documentary video capture. Students select projects of personal interest and cultural relevance and participate in assigned group projects. Students must supply camera, digital media or film, and presentation materials. (CSU)

PHOT 0070A. Advanced Photography*Units: 3*

Prerequisite: Completion of PHOT 60A with grade of "C" or better

Advisory: Completion of PHOT 78 with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Studio topics in portraiture and still life with emphasis on photographic communication and expression of ideas through controlled lighting. Concentration on creative control in camera use, exposure, and composition. For students seeking a career in photography or one of its related fields, and for those who desire additional and advanced creative or technical work. Students must furnish camera, film or digital media, paper and presentation materials. (CSU)

PHOT 0070B. Advanced Photography*Units: 3*

Prerequisite: Completion of PHOT 70A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Additional creative and technical work with lighting, composition, and portfolio development. Concentration on refining studio techniques used in commercial and fine art photography. Students work with medium and large format cameras and a variety of film choices including digital. Students must furnish film, paper, and presentation materials. (CSU)

PHOT 0071A. Photography Studio Experience*Units: 0.5-1*

Corequisite: Concurrent enrollment in PHOT 70A

Hours: 27 laboratory per .5 unit

Photography studio practice and production. Provides individual assistance with projects requiring studio lighting, image capture, retouching and printing. Optional studio lighting course to accompany PHOT 70A. (not transferable)

PHOT 0071B. Photography Studio Experience: Advanced*Units: 0.5-1*

Corequisite: Concurrent enrollment in PHOT 70B

Hours: 27 laboratory per .5 unit

Advanced photography studio practice and production. Provides individual assistance with advanced projects requiring studio lighting, image capture, retouching and printing. Optional studio lighting course to accompany PHOT 70B. (not transferable)

PHOT 0075. Introduction to Digital Imaging*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 manipulation of photographs 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 Digital Imaging*Units: 3*

Also known as AAD 76

Advisory: Completion of PHOT 75/AAD 75 and PHOT 60A with grades of "C" or better recommended

Hours: 72 (36 lecture, 36 activity)

Advanced digital project development. Creating original images from a variety of input devices including scanners and digital cameras. Speed building in editing techniques. Use of various output methods appropriate for specific projects. Evaluations and critiques of completed projects. (CSU)

PHOT 0078. Digital Photography*Units: 3*

Prerequisite: Completion of PHOT 60A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Use of digital cameras for direct capture of photographic images. 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. Color management and digital output to inkjet and silver-based printers. Basic video capture with digital still cameras. (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)

A concentration in the study of the history of color photography, color theory, color symbolism, and color as a communication element in photography. Composition, exposure, and theme in creating expressive color photographs also covered. In-depth study of camera usage, lighting, and digital processing techniques to produce accurate color and the creative use of color. Implementation of a color-managed workflow to produce accurate color from digital capture to print. Students create digital prints and slideshows utilizing the expressive use of color. Students must provide a digital camera. (CSU, UC)

PHOT 0085. Photojournalism*Units: 2*

Prerequisite: Completion of PHOT 60A or 78 with grade of "C" or better

Hours: 54 (18 lecture, 36 activity)

Theory and practice of photography for publication in newspapers and magazines. Emphasis on communication with single images and photographic essays. Simulations of professional assignments including deadlines. College publications may be utilized for practical application. Students must furnish digital camera and computer storage media. (CSU)

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 and fine art photographers. Elements of starting and running a photography business, including overhead, taxes, insurance, copyright law, contracts, pricing, marketing and advertising. Overview of business resources provided by professional photography organizations. Creation of a business plan related to the students' career goals. (CSU)

PHOT 0090B. Field Workshop: Cityscape*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 the city and urban environments as subject matter. Topics include camera and lens use, composition, equipment, metering and lighting, and the traditions of cityscape photography. Location of field study will vary. Students must supply camera, digital media or film and presentation materials. (CSU)

PHOT 0090G. Pinhole Photography 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

Design, construction and use of simple, inexpensive lensless cameras from containers of various sizes and shapes with emphasis on function and aesthetics. Aperture calculations and effects of camera shape upon image distortion. Comparisons with traditional cameras and photography. Historical background and current resurgent interest in pinhole photography explored. (CSU)

PHOT 0090H. Documentary 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

Intensive field workshop covering specific locations, methods and processes of documentary record making and interpretation. Students must supply camera, digital media or film, and presentation materials. Location of field study will vary. (CSU)

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, composition, digital and film capture, filters, equipment, metering, lighting, and the unique aspects of the event, region or situation being studied. Specific locations and lighting circumstances vary. Students must furnish camera, film or digital media, processing and presentation materials. (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

Intensive field workshop covering specific events, styles, locations, methods, and processes of photojournalism. 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. Students must furnish digital camera. (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. Aspects of travel photography also explored. Location of field study will vary. Students must supply camera, digital media or film and presentation materials. (CSU)

PHOT 0090M. Autobiographical 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

Photography as a tool of expression, exploration and documentation.

Topics include autobiographical references in art and photography, point of view, self as subject, varieties of personal description and narration, and the influence of context such as gender, age, family, and culture upon visual communication. Students must furnish camera, film or digital media, print processing and presentation supplies. (CSU)

PHOT 0090N. Field Workshop: Color Nature Photography*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 color nature photography. 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. Students must supply camera, digital media or film and presentation materials. (CSU)

PHOT 0090P. Workshop: Portraiture*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

Exploration of portraiture in outdoor settings. Topics include camera, lens and equipment selection, camera use, lighting, posing, and composition. Students must supply camera, digital media or film, and presentation materials. Location of field study will vary. (CSU)

PHOT 0090T. Travel 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 specific locations, methods and processes of travel photography in domestic and international locations. Includes visual themes, narrative and individual images, editorial and stock photography, composition, digital or film cameras, materials and equipment, exposure, selection and presentation of photographs. Overview of the population, habitat, environment and geography, culture and traditions of the region being studied. Special considerations of travel photography. Students must furnish camera, film or digital media, processing and presentation supplies. (CSU)

PHOT 0092. Alternative Processes*Units: 3*

Prerequisite: Completion of PHOT 60A with grade of "C" or better

Hours: 72 (36 lecture, 36 activity)

Exploration of 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 explored. Processes may include: cyanotype, Van Dyke brown, gum dichromate, hand-coated silver emulsion, and laser transfers. (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. 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.

Physical Education Contact Information

Division

Health, Physical Education, Recreation/Athletics

Dean

Lucas Moosman

Division Office

Ft, Rocklin Campus

Overview

The Physical Education 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

Darci Brownell**Professor, Athletics/Health Education/Physical Education/Recreation Management**

B.A., California State University, Sacramento

M.S., National University

Mary Conway**Professor, Athletics/Health Education/Physical Education/Recreation Management**

A.A., Packer Collegiate Institute

B.S., City University of New York, Brooklyn College

M.S., University of Illinois, Chicago

Scott Decker**Professor, Athletics/Health Education/Physical Education/Recreation Management**

B.A., University of California, Davis

M.A., United States Sports Academy

Edward Eaton

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., San Jose State University
M.A.T., San Jose State University

Heather Eubanks

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Lutheran University
M.A., Azusa Pacific University

John Fusano

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason Gantt

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California State University, Sacramento
M.S., California State University, Sacramento

Roz Goldenberg

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Northridge
M.A., Humboldt State University

Brandie Murrish

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Polytechnic State University, San Luis Obispo
M.S., California State University, Sacramento

Ben Noonan

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Jeff Tisdell

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., University of Nevada, Reno

Robert Willson

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Liaison Counselors

Brian Gosney, Tonya Times

Degrees/Certificates

Associate Degree for Transfer

- Kinesiology for Transfer (p. 199)

Associate Degree

- Physical Education (p. 200)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

PHED 0081	Introduction to Kinesiology	3
BIOL 0005	Human Anatomy (OR)	4-5
or BIOL 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II	
BIOL 0006	Human Physiology	5

Select 3 units (one course from three of the following areas): 3

Aquatics:

PHED 0008	Aquacise
PHED 0036	Fundamental Swimming
PHED 0039	Swimming Conditioning

Combatives:

PHED 0014	Tai Chi
PHED 0066	Combative Self Defense
PHED 0069	Peaceful Self Defense
PHED 0080	Multi Self Defense System

Dance:

PHED 0051C	Line Dance
PHED 0051D	Modern Ballroom Dance
PHED 0053	Modern Dance
PHED 0054	Jazz Dance
PHED 0056A	Ballet I

Fitness:

PHED 0003A	Basic Aerobic Training with Fitness Equipment
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment
PHED 0005A	Weight Training
PHED 0005B	Strength Training - Circuit and Power Lifting
PHED 0006	Physical Fitness
PHED 0007	Aerobic Fitness
PHED 0009	Step Aerobic Training
PHED 0013	Cardio Kickboxing
PHED 0019	Mat Pilates
PHED 0055	Fundamentals of Yoga

Individual Sports:

PHED 0010	Golf
PHED 0011	Badminton
PHED 0016	Tennis

Team Sports:

PHED 0023	Recreational Basketball
PHED 0026	Volleyball
PHED 0027A	Soccer Level I
PHED 0027B	Soccer Level II

Select 6-7 units from the following: 6-7

HED 0001	Standard First Aid/Community CPR
MATH 0013	Elementary Statistics
or PSYC 0142	Introduction to Psychological Statistics
or SOC 0015	Introduction to Statistics in Sociology

Total Units 21-23**Physical Education****AA or AS Degree**

The Physical Education AA/AS degree provides students with the opportunity to meet the requirements for transferring to four-year colleges in the areas of Physical Education, Exercise Science, Kinesiology and Athletic Training. The program in Physical Education 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

PHED 0081 Introduction to Kinesiology 3

Select 9-10 units from the following: 9-10

BIOL 0005	Human Anatomy (OR)
or BIOL 0007A	Human Anatomy I
& BIOL 0007B	and Human Anatomy II
BIOL 0006	Human Physiology
CHEM 0002A	Introduction to Chemistry I

Select 6-9 units from the following: 6-9

BIOL 0001	General Biology
BIOL 0010	Introduction to Biology
HED 0001	Standard First Aid/Community CPR
HED 0002	Health Education
MATH 0013	Elementary Statistics
NUTF 0010	Principles of Nutrition
PHED 0083	Physiology of Fitness
PHED 0085	Techniques of Fitness Instruction
PHYS 0105	General Physics I
& 0105L	and General Physics I Laboratory

Select 2-3 units from the following theory courses: 2-3

PHED 0082	Sports Officiating
PHED 0084	Care and Prevention of Athletic Injuries
PHED 0086	Psychology of Sport
PHED 0088	Introduction to Coaching Team Sports
PHED 0089A	Theory of Baseball
PHED 0089B	Theory of Basketball
PHED 0089C	Theory of Softball
PHED 0089F	Theory of Football
PHED 0089G	Theory of Volleyball
PHED 0089H	Theory of Soccer

Select 1-2.5 units from the following activity courses: 1-2.5

PHED 0003A	Basic Aerobic Training with Fitness Equipment
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment
PHED 0005A	Weight Training
PHED 0005B	Strength Training - Circuit and Power Lifting
PHED 0006	Physical Fitness
PHED 0010	Golf
PHED 0013	Cardio Kickboxing
PHED 0016	Tennis
PHED 0019	Mat Pilates
PHED 0023	Recreational Basketball
PHED 0026	Volleyball
PHED 0027A	Soccer Level I

PHED 0027B	Soccer Level II
PHED 0035	Lifeguard Training
PHED 0036	Fundamental Swimming
PHED 0039	Swimming Conditioning
PHED 0051B	Square Dance
PHED 0051C	Line Dance
PHED 0051D	Modern Ballroom Dance
PHED 0055	Fundamentals of Yoga
PHED 0066	Combative Self Defense
PHED 0071	Adapted Group Activities
PHED 0073	Adapted Aquatics
RECM 0070	Backpacking
RECM 0071	Rock Climbing

Total Units **21-27.5**

Courses

Understanding course descriptions (p. 268)

PHED 0003A. Basic Aerobic Training with Fitness Equipment

Units: 0.5-2

Formerly known as PHED 3

Hours: 36 activity per unit

Designed to educate students in the areas of basic aerobic and cardiovascular fitness using fitness equipment as well as evaluate and improve present aerobic fitness level. (CSU, UC-with unit limitation)

PHED 0003B. Advanced Aerobic Circuit Training with Fitness Equipment

Units: 0.5-2

Advisory: Completion of PHED 3A with grade of "C" or better

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)

PHED 0005A. Weight Training

Units: 0.5-2

Formerly known as PHED 5

Hours: 36 activity per unit

Progressive resistance exercises with free weights and weight machines to develop muscular strength and endurance. (CSU, UC-with unit limitation)

PHED 0005B. Strength Training - Circuit and Power Lifting

Units: 0.5-2

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)

PHED 0006. Physical Fitness

Units: 0.5-2

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)

PHED 0007. Aerobic Fitness

Units: 0.5-2

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)

PHED 0008. Aquacise

Units: 0.5-2

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)

PHED 0009. Step Aerobic Training

Units: 0.5-2

Hours: 36 activity per unit

An intense cardiovascular and muscular endurance workout utilizing an adjustable "step" for differing fitness levels choreographed to music to include: warm-up, cardiovascular step segment, floor work and flexibility warm-down. (CSU, UC-with unit limitation)

PHED 0010. Golf

Units: 0.5-2

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)

PHED 0011. Badminton

Units: 0.5-2

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)

PHED 0013. Cardio Kickboxing

Units: 0.5-2

Hours: 36 activity per unit

An intense cardiovascular and muscular endurance workout utilizing boxing, calisthenics, Tai Chi, and QiGong for differing fitness levels choreographed to music to include: warm-up; cardiovascular kickboxing segment, floor work, self-defense and cool down. (CSU, UC-with unit limitation)

PHED 0014. Tai Chi

Units: 0.5-2

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)

PHED 0016. Tennis

Units: 0.5-2

Hours: 36 activity per unit

Fundamental techniques of service, forehand, and backhand. Covers strategy, rules, and etiquette. Provides an opportunity for competition in both singles and doubles play. (CSU, UC-with unit limitation)

PHED 0019. Mat Pilates*Units: 0.5-2*

Hours: 36 activity per unit

Designed to improve "core" muscles of the torso, improve posture, suppleness, and elongate the body. Targets back and abdominal muscle groups. Includes cardiovascular warm up, aerobic conditioning, strengthening exercises, and cool down. Student must provide Yoga or Pilates "sticky" mat. (CSU, UC-with unit limitation)

PHED 0022. Fitness and Weight Management Boot Camp*Units: 2-3*

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 weight management. 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. Students with body mass indexes of 25 or over are best suited for this course because of the emphasis on weight management. (CSU, UC-with unit limitation)

PHED 0023. Recreational Basketball*Units: 0.5-2*

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)

PHED 0026. Volleyball*Units: 0.5-2*

Hours: 36 activity per unit

Fundamental skills, rules, and strategy. Primary emphasis on the application of skills and strategy needed to play volleyball. (CSU, UC-with unit limitation)

PHED 0027A. Soccer Level I*Units: 0.5-2*

Formerly known as PHED 27

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)

PHED 0027B. Soccer Level II*Units: 0.5-2*

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)

PHED 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)

PHED 0029. Flag Football*Units: 0.5-2*

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)

PHED 0030. Rugby*Units: 0.5-2*

Hours: 36 activity per unit

Designed for both men and women wishing to learn the physical needs and skills of Rugby. Primary emphasis on application of skills, rules, and strategy in game play. (CSU, UC-with unit limitation)

PHED 0032. ACE Personal Trainer Preparation*Units: 3*

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)

PHED 0033. Recertification for Lifeguard Training and Professional Rescue CPR*Unit: 1*

Prerequisite: Possession of a current or recently expired (within 1 year) Lifeguard Training certificate

Hours: 24 (12 lecture, 12 activity)

Review of Lifeguard Training and CPR for the Professional Rescuer. Leads to recertification of American Red Cross Lifeguard Training and CPR. Certificates issued upon successful completion of Red Cross requirements. (not transferable)

PHED 0035. Lifeguard Training*Units: 2.5*

Advisory: Candidates must demonstrate strong swimming skills

Hours: 54 (36 lecture, 18 activity)

Knowledge and skills necessary to keep patrons of aquatic facilities safe in and around water. American Red Cross Lifeguard Training and CPR/AED for the Professional Rescuer/First Aid certificates issued upon successful completion of course and American Red Cross requirements. (CSU, UC)

PHED 0036. Fundamental Swimming*Units: 0.5-2*

Hours: 36 activity per unit

Development of physical and mental adjustment to the water. For nonswimmers through advanced. Basic instruction in swimming, water safety skills, water entry and exit, and water exercises. Instruction and practice in developing aerobic fitness. (CSU, UC-with unit limitation)

PHED 0039. Swimming Conditioning*Units: 0.5-2*

Hours: 36 activity per unit

Development of muscular and cardiovascular endurance. Instruction in distance training, interval training, water exercise, sprint training, stroke techniques and water games. (CSU, UC-with unit limitation)

PHED 0051B. Square Dance*Units: 0.5-2*

Formerly known as PHED 51

Hours: 36 activity per unit

Introduction to square, round, and contra dancing. Includes development of rhythm and the history of the dances. (CSU, UC)

PHED 0051C. Line Dance*Units: 0.5-2*

Formerly known as PHED 51

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 social dances. (CSU, UC)

PHED 0051D. Modern Ballroom Dance*Units: 0.5-2*

Formerly known as PHED 51

Hours: 36 activity per unit

Basic skills in social and ballroom dance steps, including Swing, Tango, Waltz, Fox Trot, Cha-Cha, Rumba, Mambo, and Samba. Includes development of rhythm and the history of social dances. (CSU, UC)

PHED 0053. Modern Dance*Units: 0.5-2*

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)

PHED 0054. Jazz Dance*Units: 0.5-2*

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)

PHED 0055. Fundamentals of Yoga*Units: 0.5-2*

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)

PHED 0056A. Ballet I*Units: 0.5-2*

Formerly known as PHED 56

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)

PHED 0056B. Ballet II*Units: 0.5-2*

Advisory: Completion of PHED 56A 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)

PHED 0063. Self-Defense for Personal Safety*Unit: 1.5*

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)

PHED 0066. Combative Self Defense*Units: 1-2*

Hours: 36 activity per unit

Hand-to-hand combat for self defense. Emphasis on disarming and immobilizing an assailant; includes martial arts such as Kenju Do. (CSU, UC-with unit limitation)

PHED 0068. Introduction to Meditation*Units: 0.5-2*

Hours: 36 activity per unit

Exploration of the body/mind connection through techniques of visualization, affirmation, concentration and meditation. (CSU)

PHED 0069. Peaceful Self Defense*Units: 0.5-2*

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)

PHED 0071. Adapted Group Activities*Units: 0.5-2*

Advisory: Physician's approval recommended for participation

Hours: 36 activity per unit

Introduces students with physical and/or developmental disabilities to a variety of group activities, such as basketball, ultimate frisbee, and flag football. Emphasis on developing fundamental physical and social skills to effectively participate in group activities. (CSU, UC-with unit limitation)

PHED 0072. Adapted Individualized Exercises*Units: 0.5-2*

Advisory: Physician's approval recommended for participation

Hours: 36 activity per unit

Designed for students having difficulty with ambulation, balance, and/or motor skills. Individualized exercise programs based on the student's physical abilities, physician's recommendation, and student's personal goals. (CSU, UC-with unit limitation)

PHED 0073. Adapted Aquatics*Units: 0.5-2*

Advisory: Physician's approval recommended for participation

Hours: 36 activity per unit

For physically limited individuals, providing individually prescribed exercises, adaptive and/or modified swimming, and exercises designed to improve cardiovascular endurance. (CSU, UC-with unit limitation)

PHED 0074. Adapted Aerobic Fitness*Units: 0.5-2*

Advisory: Physician's approval recommended for participation

Hours: 36 activity per unit

Aerobic fitness training for individuals with disabilities. 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)

PHED 0075. Adapted Walk/Jog*Unit: 1*

Advisory: Physician's approval recommended for participation

Hours: 36 activity per unit

Walking/Jogging for people with permanent or short-term disabilities. Emphasis on walking/jogging techniques, aerobic conditioning, program development, nutrition, proper workout attire and safety. (CSU, UC-with unit limitation)

PHED 0080. Multi Self Defense System*Units: 0.5-2*

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)

PHED 0081. Introduction to Kinesiology*Units: 3*

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)

PHED 0082. Sports Officiating*Units: 2*

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)

PHED 0083. Physiology of Fitness*Units: 3*

Hours: 54 lecture

Introduction to physiological adaptations to exercise, with considerations of the bio-physical values of exercise in maintaining fitness throughout an individual's life span. Designed to teach principles of cardiovascular endurance and proper weight control by engaging students in personal fitness through writing of their own individual programs. (CSU, UC-with unit limitation)

PHED 0084. Care and Prevention of Athletic Injuries*Units: 3*

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)

PHED 0085. Techniques of Fitness Instruction*Units: 3*

Hours: 72 (36 lecture, 36 activity)

Methods of instruction in leading group exercise in health clubs, resorts, institutions, corporate programs or medically supervised exercise programs. Includes music movement choreography, communication and cueing, practical application of kinesiology and muscle physiology to design class formats in aerobics, step, slide, muscle conditioning, water fitness, stretch, Yoga and fitness walking programs. Strength and weight training techniques. (CSU)

PHED 0086. Psychology of Sport*Units: 3*

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)

PHED 0087. Cross Training*Units: 2*

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)

PHED 0088. Introduction to Coaching Team Sports*Units: 3*

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)

PHED 0089A. Theory of Baseball*Units: 3*

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)

PHED 0089B. Theory of Basketball*Units: 3*

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)

PHED 0089C. Theory of Softball*Units: 3*

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)

PHED 0089F. Theory of Football*Units: 3*

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)

PHED 0089G. Theory of Volleyball*Units: 3*

Hours: 54 lecture

Theories of offensive and defensive strategies of competitive volleyball. Study, analysis, and critique of offensive and defensive skills and strategies in preparation for all levels of volleyball competition. Designed for students with volleyball experience and/or the desire to coach or play volleyball at any level. (CSU, UC-with unit limitation)

PHED 0089H. Theory of Soccer*Units: 3*

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)

PHED 0093. Sports Activities*Units: 0.5-2*

Hours: 36 activity per unit

Intra-class competition in the group activities of basketball, flag football, volleyball, soccer and softball. (CSU, UC-with unit limitation)

PHED 0200. Fire Academy Physical Training*Units: 2.5*

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)

PHED 0802. Adaptive Motor Skill Development*Units: 0*

Formerly known as SUPE 802

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.

Physics

Contact Information

Division

Sciences and Mathematics

Dean

Heather Roberts

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

Donald Harris**Professor, Physics**

B.S., Ohio State University

Ph.D., Ohio State University

Aviva Shackell**Professor, Physics**

B.S., University of California, Santa Barbara

Ph.D., University of California, Los Angeles

Liaison Counselors

Cheryl Axton, Elena Farrelly, Reyes Ortega

Degrees/Certificates

Associate Degree for Transfer

- Physics for Transfer (p. 205)

Associate Degree

- Physics (p. 206)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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 these courses are not required for this degree, completion of these courses will better prepare students for upper-division physics courses.

MATH 0033	Differential Equations and Linear Algebra	6
CSCI 0012	Programming Concepts and Methodology I	3
CHEM 0001A	General Chemistry I	5

Physics

AS Degree

The Physics major recognizes a concentration in the field of Physics. Successful completion of the curriculum in Physics and the associated electives prepare Physics 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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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 12-14 units from the following:		12-14
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	

Total Units **25-27**

Recommended Electives

CHEM 0001B	General Chemistry II	5
CHEM 0005	Chemistry - Quantitative Analysis	4
ENGR 0017	Introduction to Circuit Theory	3
ENGR 0017L	Circuit Theory Laboratory	1
ENGR 0035	Statics	3
ENGR 0045	Materials Science	3
CIS 0050	Applying Computer Software	3
CIS 0070	Word Processing-Beyond the Basics	3
CIS 0080	Spreadsheets in a Business Environment	3
CIS 0090	Database Management	3

Courses

Understanding course descriptions (p. 268)

PHYS 0000A. Foundations of College Physics

Units: 3

Prerequisite: Completion of or concurrent enrollment in MATH 8 or equivalent with a grade of "C" or better

Advisory: Completion of ENGL 50, or eligibility for ENGL 11, or equivalent strongly recommended

Hours: 54 lecture

Intended to prepare students for PHYS 2A and 4A. Focuses on measurement, relevant mathematical concepts, problem-solving, and a variety of concepts in physics. (not transferable)

PHYS 0010. Basic Concepts in Physics*Units: 3*

Prerequisite: Completion of MATH A or equivalent with grade of "C" or better

Advisory: Eligibility for ENGL 11 or equivalent 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 is on familiar phenomena in everyday life. Intended for nonscience majors. (CSU, UC-with unit limitation)

PHYS 0011. Physical Science Laboratory*Unit: 1*

Prerequisite: Concurrent enrollment in PHYS 10 or completion of PHYS 10 with a grade of "C" or better

Advisory: Eligibility for ENGL 11 or equivalent 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. (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 8 or high school trigonometry 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, pre dental, 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 8 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, pre dental, 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, pre dental, 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, pre dental, optometry, forestry, architecture, and biological science. (combined with PHYS 110, C-ID PHYS 110) (CSU, UC-with unit limitation)

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 and 105L, 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 sequence 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 and 105L, 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

Advisory: Eligibility for ENGL 11 strongly recommended

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

Advisory: Eligibility for ENGL 11 strongly recommended

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

Advisory: Eligibility for ENGL 11 strongly recommended

Hours: 54 lecture

Thermodynamics, kinetic theory of gases, waves, geometrical and physical optics, sound, and modern physics. The 205-210-215 sequence 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

Advisory: Eligibility for ENGL 11 strongly recommended

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 their results of physical measurements at a level commensurate with the curriculum.

Political Science

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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

Michael Deaver

Professor, Political Science

B.A., University of California, Los Angeles

M.A., George Washington University

Ph.D., New York University

Winsome Jackson

Professor, Political Science/Women and Gender Studies

B.A., University of Vermont

M.P.A., Suffolk University

Ed.D., University of San Francisco

Liaison Counselor

Elena Farrelly

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

POLS 0001	American Government	3
POLS 0002	Comparative Government	3
POLS 0003	International Relations	3
POLS 0016	Introduction to Political Theory	3
Select 6 units from the following:		6

POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics
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

Understanding course descriptions (p. 268)

POLS 0001. American Government

Units: 3

Hours: 54 lecture

Introduction to the principles and problems of the American political system on national, state, and local levels. Includes discussion of the Constitution, political parties, executive, legislative, and judicial branches of the government. Other topics include political behavior, voting patterns, interest group interaction, decision and conflict roles within the system. (C-ID POLS 110) (CSU, UC)

POLS 0002. 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 ideologies, institutions, parties, and social policies. (C-ID POLS 130) (CSU, UC)

POLS 0003. 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 their issues. (CSU, UC)

POLS 0007. Politics of the Developing World - Third World Politics

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 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 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)

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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Campi**Assistant Professor, Psychology**

B.S., State University of New York at Cortland

M.A., University of California, Davis

Ph.D., University of California, Davis

Stephanie 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.S., University of California, Davis

Ph.D., University of California, Davis

Robert Lennartz**Professor, Psychology**

B.S., University of Southern California

Ph.D., University of California, Irvine

Jeanne Soles**Professor, Psychology**

B.A., California State University, Fresno

M.A., Fresno Pacific University

Kathleen Taylor**Professor, Psychology/Women and Gender Studies**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

M.A., University of California, Davis

Ph.D., University of California, Davis

Soni Verma**Professor, Psychology/Women and Gender Studies**

B.A., Lady Shri Ram College for Women

M.A., Delhi University

M.Phil., National Institute of Mental Health and Neurosciences

Dean Yoshizumi**Professor, Psychology**

B.A., California State University, Fullerton

M.A., California State University, Los Angeles

Ph.D., University of Iowa

Liaison Counselors

Cheryl Axton, Sandra Muraki

Degrees/Certificates**Associate Degree for Transfer**

- Psychology for Transfer (p. 211)

Associate Degree

- Psychology (p. 211)

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

PSYC 0100	General Principles of Psychology	3
PSYC 0105	Research Methods in Psychology	4
PSYC 0142	Introduction to Psychological Statistics	3-4

or MATH 0013 Elementary Statistics

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
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Select 3 units from the following: 3

ENGL 0001B	Critical Thinking and Writing about Literature
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PSYC 0103	Social Psychology
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PSYC 0104	Developmental Psychology
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SOC 0001	Introduction to Sociology
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Select 3 units from the following or any unused course from the preceding area: 3

PSYC 0107	Abnormal Psychology
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PSYC 0127	Psychology of Women
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PSYC 0150	Alcohol, Drugs and Society
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Total Units 20-21**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 (p. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

PSYC 0100	General Principles of Psychology	3
PSYC 0105	Research Methods in Psychology	4
PSYC 0142	Introduction to Psychological Statistics	3-4
or MATH 0013	Elementary Statistics	

Select 9 units from the following: 9

ANTH 0001	Physical Anthropology
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ANTH 0002	Cultural Anthropology
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BIOL 0001	General Biology
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or BIOL 0006	Human Physiology
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or BIOL 0010	Introduction to Biology
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or BIOL 0011	Concepts of Biology
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or BIOL 0056	Biology: A Human Perspective
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PSYC 0103	Social Psychology
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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
or PSYC 0170	Environmental Psychology
Total Units	19-20

Courses

Understanding course descriptions (p. 268)

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 0100. General Principles of Psychology

Units: 3

Hours: 54 lecture

Introduction to the scientific study of behavior and mental processes. Focuses on the exploration of major psychological theories and concepts, methods, and research findings in psychology. Topics include the biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology. (C-ID PSY 110) (CSU, UC)

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 100 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 100 with grade of "C" or better;

completion of PSYC 142 or MATH 13 with grade of "C" or better

Advisory: Completion of ENGL 1A 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 100 with grade of "C" or better; Eligibility for ENGL 1A and ENGL 11

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 Marriage and Family

Units: 3

Formerly known as PSYC 10

Also known as HDEV 21

Hours: 54 lecture

Study of the meaning and functions of intimacy, marriage, 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

Study of the psychological effects of society upon women including biology, culture, social processes, and personality. Emphasis placed on what it means to grow-up female in different contexts 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 100 with grade of "C" or better

Advisory: Eligibility for ENGL 1A

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

This course 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 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 contemporary films that have played a critical role in shaping and reflecting cultural assumptions and fears. Emphasis on abnormal mental states and processes, social psychology, substance abuse, and ethics. Viewing of films, reading from psychology and psycholinguistics, and discussion included. (CSU, UC)

PSYC 0170. Environmental Psychology*Units: 3*

Formerly known as PSYC 70

Hours: 54 lecture

Exploration of psychological research of how behavior impacts the natural environment and how the natural environment impacts behavior. Emphasis on ways in which psychological theory can be applied to formulate solutions. (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

Health, Physical Education, Recreation/Athletics

Dean

Lucas Moosman

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

Darci Brownell

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.S., National University

Mary Conway

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Packer Collegiate Institute
B.S., City University of New York, Brooklyn College
M.S., University of Illinois, Chicago

Scott Decker

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., University of California, Davis
M.A., United States Sports Academy

Edward Eaton

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., San Jose State University
M.A.T., San Jose State University

Heather Eubanks

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Lutheran University
M.A., Azusa Pacific University

John Fusano

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Sacramento
M.A., Saint Mary's College of California

Jason Gantt

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California State University, Sacramento
M.S., California State University, Sacramento

Roz Goldenberg

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California State University, Northridge
M.A., Humboldt State University

Brandie Murrish

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., California Lutheran University
M.S., California State University, Northridge
M.Ed., Grand Canyon University

Vera Nelson

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.A., California Polytechnic State University, San Luis Obispo

M.S., California State University, Sacramento

Ben Noonan

Assistant Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A. Santa Rosa Junior College
B.A., Bemidji State University
M.S., Texas A and M University-Kingsville

Jeff Tisdell

Professor, Athletics/Health Education/Physical Education/Recreation Management

B.S., University of Nevada, Reno

Robert Willson

Professor, Athletics/Health Education/Physical Education/Recreation Management

A.A., Laney College
B.A., Sonoma State University
M.A., Saint Mary's College of California

Liaison Counselors

Nancy Martinis, Tonya Times

Recreation Management Advisory Committee

- Darci Brownell, Professor, Athletics/Health Education/Physical Education/Recreation Management, Sierra College
- Amanda Clemens, Fund Development Director, Rocklin Chamber of Commerce
- Brad Engeldinger, Part-time Professor, Recreation Management, Sierra College
- Matthew Eschrich, Sales Director, Rocklin Chamber of Commerce
- Janna Evans, Business and Employment Specialist, Golden Sierra Job Training Agency
- Diania Garris, Student, Sierra College
- Valaine Hoffman, Career Education Liaison, Sierra College
- Kahl Muscott, District Administrator, Auburn Recreation District
- Kyle Robbins, Student, Sierra College
- Jessica Sacci, Area Manager, Marriott-Pillar Hotels and Resorts
- Jeff Tisdell, Professor, Athletics/Health Education/Physical Education/Recreation Management, Sierra College

Degrees/Certificates

Associate Degree

- Recreation Management (p. 214)

Certificate of Achievement

- Recreation Specialist (p. 215)

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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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
Select 9-11 units from the following:		9-11
BIOL 0005	Human Anatomy (OR)	
or BIOL 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II	
BIOL 0006	Human Physiology	
BIOL 0011	Concepts of Biology	
BUS 0001	Financial Accounting I	
BUS 0002	Financial Accounting II	
BUS 0003	Managerial Accounting	
BUS 0020	Introduction to Business	
BUS 0048	Business Law	
BUS 0140	Small Business Management	
CIS 0050	Applying Computer Software	
or CSCI 0010	Introduction to Computing	
COMM 0010	Survey of Communication Studies	
ECON 0001A	Principles of Macroeconomics	
ECON 0001B	Principles of Microeconomics	
ESCI 0001 & 0001L	Physical Geology and Physical Geology Laboratory	
GEOG 0001	Physical Geography	
PSYC 0100	General Principles of Psychology	
RECM 0095	Internship in Recreation Management	
SOC 0001	Introduction to Sociology	
Total Units		21-23

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

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:

BUS 0085	Introduction to Oral Communication	3
COMM 0003	Group Communication	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	

Select 3 units from the following:

BUS 0020	Introduction to Business	3
BUS 0064	Business Mathematics	
BUS 0120	Introduction to Marketing	

Select 2-4 units from the following:

RECM 0050	Avalanche Safety I	2-4
RECM 0051	Avalanche Safety II	
RECM 0070	Backpacking	
RECM 0071	Rock Climbing	
RECM 0072	Wilderness Survival	

Total Units **24-26**

Courses

Understanding course descriptions (p. 268)

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

Overview of structure and financial performances of the hospitality industry; food and lodging, resorts, tourism enterprises, attractions, and related operations. Focus on orientation on customer service, cultural/economic trends, and career opportunities. (CSU)

RECM 0050. Avalanche Safety I*Units: 4*

Formerly known as Forestry 38

Advisory: Students should have an intermediate level of proficiency at skiing or snowboarding, and have backcountry access and climbing capability

Hours: 108 (54 lecture, 54 laboratory)

Designed to help winter enthusiasts assess avalanche hazard through field observation of weather, terrain, and the mountain snow pack. Field sessions in stability evaluation, terrain analysis, and route selection are conducted, applying theory learned in the classroom. Necessary equipment: beacon; probe; shovel; snowshoes, snowboard, or freeheel skis. (CSU)

RECM 0051. Avalanche Safety II*Units: 2*

Formerly known as Forestry 39

Prerequisite: Completion of RECM 50 with grade of "C" or better

Advisory: Students should have an intermediate level of proficiency at skiing or snowboarding, and have backcountry access and climbing capability

Hours: 54 (27 lecture, 27 laboratory)

Stability evaluation, route selection, and decisions made in a field context relative to backcountry travel and avalanche safety. Necessary equipment: beacon; probe; shovel; snowshoes, snowboard, or freeheel skis. (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 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. 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 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.

Skill Development

Contact Information

Division

Library and Learning Resource Center

Dean

Sabrina Pape

Division Office

LRC 311, Rocklin Campus

Overview

Skill Development classes are offered through the Learning Resource Center. SKDV 0001 is a one-unit course which is part of the tutor training qualifications. SKDV 0801 is a non-credit course that provides tutoring or learning assistance to students in all disciplines. All students who use tutoring or learning assistance will enroll in SKDV 0801.

Courses

Understanding course descriptions (p. 268)

SKDV 0001. Techniques of Tutoring*Unit: 1*

Formerly known as SKDV 21A

Advisory: Eligibility for ENGL 1A and ENGL 11

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 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 basic skills or academic college-level subjects. Tutorials or learning assistance, or both, are recommended by counselors or instructors for the purpose of developing or augmenting learning by students. Tutorial or learning assistance content is based on student need. 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.

Social Science**Contact Information****Division**

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

The Social Science curriculum is a mixture of survey courses and interdisciplinary studies. The courses vary in their subject matter. Students who major in Social Science generally do so in order to prepare themselves for graduate training in a variety of fields.

TRANSFER MAJOR REQUIREMENTS in Social Science 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 Social Science are qualified include: civil service entry level management, entry into teacher training, entry into law school, entry into professional social work training and entry-level work in social service agencies.

Faculty**Sandra McDonald****Professor, Social Science**

B.S., Tennessee State University

M.S., Vanderbilt University

Liaison Counselors**Nancy Martinis, Rebecca Ortega****Degrees/Certificates****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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses**Select 9-10 units from the following Behavioral Sciences:**

9-10

ANTH 0002	Cultural Anthropology	HIST 0004B	Western Civilization since 1715
ANTH 0004	Native Peoples of North America	HIST 0017A	History of the United States to 1877
ANTH 0005	Introduction to Archaeology	HIST 0017B	History of the United States since 1865
ANTH 0007	Native Peoples of California	HIST 0018A	The African American Experience in American History to 1877
ANTH 0009	Magic, Witchcraft, Ritual, Myth and Religion	HIST 0018B	The African American Experience in American History since 1877
ANTH 0027	Anthropology of Sex, Gender and Sexuality	HIST 0019A	History of Traditional East Asia
COMM 0003	Group Communication	HIST 0019B	History of Modern East Asia
COMM 0005	Communication Experience	HIST 0020	California History
COMM 0006	Oral Interpretation of Diverse Literatures	HIST 0021	Contemporary United States History
COMM 0007	Intercultural Communication	HIST 0022	American Military History
COMM 0008	Interpersonal Communication	HIST 0023	Chicano/Mexican American History
COMM 0070	Mass Communication: Media and Society	HIST 0024	Russian History - 10th Century to Present
HDEV 0001	Human Development through the Lifespan	HIST 0027	Women in American History
HDEV 0004	Child, Family, and Community	HIST 0050	World History to 1500
HDEV 0009	Child and Adolescent Development	HIST 0051	World History since 1500
HDEV 0025	Culture and Diversity in Early Childhood Education	LGBT 0001	Introduction to LGBT Studies/Queer Theory
NUTF 0010	Principles of Nutrition	POLS 0001	American Government
PSYC 0100	General Principles of Psychology	POLS 0002	Comparative Government
PSYC 0103	Social Psychology	POLS 0003	International Relations
PSYC 0104	Developmental Psychology	POLS 0004	Russian and East European Political Systems
PSYC 0105	Research Methods in Psychology	POLS 0007	Politics of the Developing World - Third World Politics
PSYC 0106	Psychology of Adjustment	POLS 0008	American Foreign Policy
PSYC 0108	Psychology of Death and Dying	POLS 0009	Politics of the Middle East
PSYC 0110	Psychology of Marriage and Family (also HDEV 0021)	POLS 0012	Terrorism
PSYC 0127	Psychology of Women	POLS 0016	Introduction to Political Theory
PSYC 0130	Human Sexuality	POLS 0027	Women and Politics in a Global Society
PSYC 0150	Alcohol, Drugs and Society	SSCI 0020	African American Culture and Experience
PSYC 0160	Psychology and Film	SSCI 0035	Immigrants and Refugees in America: The European Experience
SOC 0001	Introduction to Sociology	SSCI 0050	Ethnic Images in Film
SOC 0002	Social Problems	WMST 0001	Introduction to Women's Studies
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 0024	Introduction to Sociology of Sport		
SSCI 0010	Introduction to Ethnic Studies		
SSCI 0013	Dialogues in American Culture		
Select 9 units from the following Social Sciences:		Total Units	18-19
ADMJ 0050	Introduction to Administration of Justice		
AGRI 0198	Food, Society and the Environment		
AGRI 0215	Introduction to Agricultural Business and Economics		
BUS 0049	Law and Society		
ECON 0001A	Principles of Macroeconomics		
ECON 0001B	Principles of Microeconomics		
ESS 0001	The Environment and the Human Impact		
GEOG 0002	Cultural Geography		
GEOG 0003	Geography of California		
GEOG 0005	World Regional Geography		
HIST 0004A	Western Civilization to 1715		

Courses

Understanding course descriptions (p. 268)

SSCI 0010. Introduction to Ethnic Studies

Units: 3

Hours: 54 lecture

Introduction to the diverse cultural, social, economic, historical, and political issues relating to the past and present life circumstances of Asian Americans, African Americans, Hispanic Americans, Native Americans, and other "old" and "new" immigrants. Topics also include majority-minority relations, implications of racism, and intergroup relations. (CSU, UC)

SSCI 0013. Dialogues in American Culture*Units: 3*

Hours: 54 lecture

Introduces students to a variety of contemporary topics through guest lectures and discussions. Explores the rich diversity of people, cultures, and opportunities within America, emphasizing theoretical and practical understanding of diversity. Employing a wide range of interdisciplinary social and behavioral science perspectives. The lecture-discussions and films explore topics including ethnicity, aging, (dis) ability, social class, gender, sexual orientation, religion, race, identity, politics and science. (CSU, UC)

SSCI 0020. African American Culture and Experience*Units: 3*

Hours: 54 lecture

Introduction to the study of African American culture and experience in the United States. Places the African American experience at the center of the discourse and incorporates methodology from other disciplines that serve as a foundation for integrative and comparative perspectives. A critical examination of the African American experience and its antecedents. (CSU, UC)

SSCI 0025. Mexican American/Latino Culture and Image*Units: 3*

Hours: 54 lecture

Introduction to Mexican American/Chicano/Latino culture using a comparative and interdisciplinary approach with focus on representation in media and popular culture. Course designed to provide an awareness of social, political, economic and cultural aspects of Mexican American, Chicano and Latino life in United States inclusive of social movements and protests. Field trips may be required. (CSU, UC)

SSCI 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)

SSCI 0030. Immigration, Community and Culture: The Asian American Experience*Units: 3*

Hours: 54 lecture

Introduction to Asian American cultures in the United States from mid-1800's to present using a comparative and interdisciplinary approach. Examination of the development and evolution of Chinese, Filipino, Asian Indians, Japanese, Korean and Vietnamese communities within the context of social, historical, economic, and political forces within the United States. Topics include immigration and settlement issues, social movements, assimilation, media images, stereotypes and discrimination, community building, art and popular culture. Field trips may be required. (CSU, UC)

SSCI 0035. Immigrants and Refugees in America: The European Experience*Units: 3*

Hours: 54 lecture

Survey of immigration, acculturation, assimilation and cultures of peoples from northern, western, southern, eastern and central Europe. Includes a comparative overview of pre-immigration, immigration and post-immigration experiences of the people from these groups to the United States. (CSU, UC)

SSCI 0050. Ethnic Images in Film*Units: 3*

Hours: 54 lecture

Interdisciplinary approach to study 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)

SSCI 0300F. Italian Life, Culture and Politics*Units: 3*

Hours: 54 lecture

Introduction to Italian life and culture through the exploration and examination of history, politics, economics, art, literature and traditions. Special attention will be given to the Medici banking system, the Italian City Republics as well as the period known as the Italian Renaissance. (CSU, UC)

SSCI 0300G. Oaxacan Life and Culture*Units: 3*

Hours: 54 lecture

Introduction to Oaxacan life and culture through exploration of its history, culture, politics, ecology and challenges. Emphasis includes the relationship between Southern Mexico and U.S. cultures. Involves field trips to local artisan villages, ecological preserves, museums, archeological sites and guest lectures. (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.

Sociology

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

Sociology is a disciplined quest for the understanding of human behavior—particularly in urban, 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 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 Seely

Professor, Sociology/Women and Gender Studies

B.A., California State University, Chico

M.A., California State University, Sacramento

Liaison Counselors

Marcia Braga, Rebecca Ortega

Degrees/Certificates

Sociology for Transfer

AA-T Degree

Sociology is a disciplined quest for the understanding of human behavior, particularly in urban, 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 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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

SOC 0001	Introduction to Sociology	3
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SOC 0002	Social Problems	3
SOC 0015	Introduction to Statistics in Sociology	3
Select 6 units from the following:		6
SOC 0003	Race, Ethnicity and Inequality	
SOC 0020	Introduction to Research Methods	
SOC 0027	Sociology of Gender	
Select 3 units from the following or unused course from the preceding area:		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 0024	Introduction to Sociology of Sport	
SOC 0095	Internship in Sociology	
Total Units		18

Courses

Understanding course descriptions (p. 268)

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

Advisory: Completion of or concurrent enrollment in SOC 1

Hours: 54 lecture

Examines the impact of race and ethnic relations in the United States within social institutions such as politics, economics, education, housing, and criminal justice. Topics include majority-minority relations, discrimination, prejudice, social stratification, inequality, racism, and related subjects. (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 and mate selection, marriage, alternatives to marriage, intimacy, relationships, and parenting. (C-ID SOCI 130) (CSU, UC)

SOC 0005. Sociology of Women's Health*Units: 3*

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 A 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. Provides an overview of the ways in which women 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. (CSU, UC)

SOC 0015. Introduction to Statistics in Sociology*Units: 3*

Prerequisite: Two years of high school algebra or MATH D with grade(s) of "C" or better, or placement by matriculation assessment process

Advisory: Completion of or concurrent enrollment in SOC 1

Hours: 54 lecture

Application of statistical methods to sociological data. Topics include: descriptive and inferential statistics including levels and types of measurement; measures of central tendency and dispersion; normal, t, and chi-square distributions, probability and hypothesis testing, correlation and regression. Statistical software applied to sociological and/or other social science data. (C-ID SOCI 125) (CSU, UC)

SOC 0020. Introduction to Research Methods*Units: 3*Prerequisite: Completion of SOC 1 and 15 with grades of "C" or better
Hours: 72 (54 lecture, 18 laboratory)

Students examine fundamental elements of empirical research and the ways sociologists think critically. Includes attention to the nature of theory, hypotheses, variables, and ethics of research. Application of qualitative and quantitative analytic tools including logic and research design, such as survey, observational, experimental, case study, and comparative historical research. Computer applications are utilized to analyze data. (C-ID SOCI 120) (CSU, UC)

SOC 0024. Introduction to Sociology of Sport*Units: 3*

Advisory: Completion of or concurrent enrollment in SOC 1

Hours: 54 lecture

Introduction to the examination of sport in contemporary society using a sociological approach. Analyzes sport as a social institution and examines sport's interaction with politics, economics, education, religion, gender, race, media, and ethics. Focus on the impact of sport on participants, spectators, and society as a whole. (CSU)

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 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. 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 0301. Achieving Equity in Higher Ed: California Community Colleges*Units: 3*

Hours: 54 lecture

A sociological approach to the study of equity within community colleges, with focus on California community colleges, including the various policies and strategies to achieve equity. Utilizes the critical approach when evaluating and applying policies and strategies to achieve equity. In addition to regular class meetings, students are required to participate in a minimum of 2 hours/week of assigned activities including, but not limited to, attending meetings on campus, field trips, and volunteering in campus organizations or centers. (CSU)

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

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

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 Casler

Professor, Spanish

B.A., Pacific University

M.A., Miami University

Marga Kelly

Assistant Professor, Spanish

B.A., Brigham Young University

M.A., Brigham Young University

Christine Sabin

Professor, Spanish

B.A., University of Delaware

M.A., California State University, Sacramento

Liaison Counselor

Dale Quadros

Degrees/Certificates

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
- completion of the California State University General Education Breadth (CSU GE) (p. 257) pattern or the Intersegmental General Education Transfer Curriculum (IGETC) (p. 263) pattern.

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.

Required Courses

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.

Courses

Understanding course descriptions (p. 268)

SPAN 0001. Elementary Spanish - Level I*Units: 5*

Advisory: Eligibility for ENGL 1A

Hours: 90 lecture

First of two semesters of Elementary Spanish. Provides basic communication skills through listening, speaking, reading, and writing by applying principles of phonetics (speech sounds), morphology (word formation), and syntax (word order) in the context of Spanish-speaking culture. 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 basic communication skills through listening, speaking, reading, and writing by applying principles of phonetics (speech sounds), morphology (word formation), and syntax (word order) in the context of Spanish-speaking culture. (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. Provides intermediate level of communication skills through listening, speaking, reading, and writing by applying principles of phonetics (speech sounds), morphology (word formation), and syntax (word order) in the context of Spanish-speaking culture. Students will continue to 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. Provides upper intermediate level of communication skills through listening, speaking, reading and writing within a cultural background. Readings of literature (short story, poetry, drama, essay) and culturally relevant authentic materials (newspapers, magazines, films) as well as writing short compositions are emphasized in this course. (C-ID SPAN 210) (CSU, UC)

SPAN 0015. Elementary Conversational Spanish 1*Units: 3*

Hours: 54 lecture

First of two semester sequence covering basic Spanish conversational skills. Emphasizes oral communication through introduction to vocabulary, cultural customs, and elementary grammatical structures used in everyday Spanish. Elementary reading and writing skills also included. (CSU)

SPAN 0016. Elementary Conversational Spanish 2*Units: 3*

Prerequisite: Completion of SPAN 15, SPAN 1, or two years of high school Spanish with grade(s) of "C" or better

Hours: 54 lecture

Second semester of Conversational Spanish. Develops increasingly complex language abilities through new vocabulary and more advanced grammatical structures. Emphasizing oral communication, students are introduced to vocabulary, cultural customs, and elementary grammatical, reading, and writing skills. (CSU)

SPAN 0017. Intermediate Conversational Spanish*Units: 3*

Prerequisite: Completion of SPAN 16, 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 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.

Welding Technology

Contact Information

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, 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

William Wenzel**Professor, Welding Technology**

A.A., American River College

Liaison Counselors

Marcia Braga, Dale Quadros

Degrees/Certificates

Associate Degree

- Welding Technology (p. 224)

Certificate of Achievement

- Welding (p. 224)

Skills Certificates

- Gas Metal Arc Welding (p. 224)
- Gas Tungsten Arc Welding (p. 225)
- Metal Fabricator and Designer (p. 225)
- Shielded Metal Arc Welding (p. 225)
- Welding Entrepreneurship (p. 225)

Welding Technology

AA or AS Degree

(formerly Metals and Manufacturing Technology)

Successful completion of the degree pattern in Welding Technology prepares students for transfer to the California State University system in industrial-related degree programs. It also provides the broad background education necessary to compete successfully in commercial and industrial welding and related fabrication fields. 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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0025	Intermediate Welding Technology - Career Path	3
WELD 0030	Advanced Shielded Metal Arc Welding of Structural Plate and Pipe	3
WELD 0040	Wire Feed Welding Processes - Career Path	2
WELD 0050	Gas Tungsten Arc Welding (TIG) - Career Path	3
WELD 0060	Welding Metallurgy	3
WELD 0070	Principles of Fabrication	2.5
WELD 0080	Structural Steel Welding Certification	1-1.5
or WELD 0082	Pipe Welding Certification - Uphill	

Select 4-6 units from the following:

WELD 0010	Exploring Metals/Introduction to Gas Welding	4-6
WELD 0015	Introductory Welding for Metalworking	
WELD 0074	Computer-Aided Metal Cutting Design	
WELD 0083	Pipe Welding Certification - Downhill	

WELD 0095	Internship in Welding Technology	
DES 0001	Technical Drafting I	
DES 0002	Technical Drafting II	
Total Units		24.5-27

Welding

Certificate of Achievement

Successful completion of the curriculum in Welding provides students with employable skills in commercial and industrial welding processes. Completion of the certificate requirements prepares students for State Certification tests. Testing and Certification is offered. A certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0025	Intermediate Welding Technology - Career Path	3
WELD 0030	Advanced Shielded Metal Arc Welding of Structural Plate and Pipe	3
WELD 0040	Wire Feed Welding Processes - Career Path	2
WELD 0050	Gas Tungsten Arc Welding (TIG) - Career Path	3
WELD 0060	Welding Metallurgy	3
WELD 0080	Structural Steel Welding Certification	1-1.5
or WELD 0082	Pipe Welding Certification - Uphill	

Select one of the following:

MATH 0000A	Elementary Algebra	3-5
Or more advanced mathematics course		

Select 5-6.5 units from the following:

WELD 0010	Exploring Metals/Introduction to Gas Welding	5-6.5
WELD 0015	Introductory Welding for Metalworking	
WELD 0028	Independent Study	
WELD 0074	Computer-Aided Metal Cutting Design	
WELD 0083	Pipe Welding Certification - Downhill	
WELD 0095	Internship in Welding Technology	
ART 0022	Creative Design in Metal	
DES 0001	Technical Drafting I	
DES 0002	Technical Drafting II	

Total Units

26-30

Gas Metal Arc Welding

Skills Certificate

The Gas Metal Arc Welding Skills Certificate prepares students for a broad understanding of the wire feed processes of GMAW using solid wires on Carbon Steel and Aluminum with multiple types of metal transfer modes. In addition, Flux Core wire processes, both gas shielded and self shielded are studied in the earning of this certificate. 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

WELD 0010	Exploring Metals/Introduction to Gas Welding	2
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WELD 0015	Introductory Welding for Metalworking	2
WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0040	Wire Feed Welding Processes - Career Path	2
Total Units		9

Gas Tungsten Arc Welding

Skills Certificate

The Gas Tungsten Arc Welding Skills Certificate prepares students for using complex emerging technological aspects of this welding process developed by welding equipment manufacturers since 2005. By exposure to welding a broad range of metals, with a concentration on sheet thicknesses, the student is earning the knowledge for the industry and artistic application of GTAW. 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

WELD 0010	Exploring Metals/Introduction to Gas Welding	2
WELD 0015	Introductory Welding for Metalworking	2
WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0050	Gas Tungsten Arc Welding (TIG) - Career Path	3
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

WELD 0010	Exploring Metals/Introduction to Gas Welding	2
WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0030	Advanced Shielded Metal Arc Welding of Structural Plate and Pipe	3
WELD 0040	Wire Feed Welding Processes - Career Path	2
WELD 0070	Principles of Fabrication	2.5
ART 0022	Creative Design in Metal	3
Total Units		15.5

Shielded Metal Arc Welding

Skills Certificate

The Shielded Metal Arc Welding Skills Certificate prepares students for the type of work performed with this welding process. With a focus of

Structural Steel Plate as well as Pipe Welding Carbon Steel applications, this certificate validates a knowledge base in this welding process. 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

WELD 0010	Exploring Metals/Introduction to Gas Welding	2
WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0025	Intermediate Welding Technology - Career Path	3
WELD 0030	Advanced Shielded Metal Arc Welding of Structural Plate and Pipe	3
WELD 0080	Structural Steel Welding Certification	1-1.5
or WELD 0082	Pipe Welding Certification - Uphill	
WELD 0083	Pipe Welding Certification - Downhill	0.5
Total Units		12.5-13

Welding Entrepreneurship

Skills Certificate

This skills certificate is designed to prepare students wanting to open their own welding or welding related business. Completion of this skills certificate provides students with basic skills in welding technology and small business management. 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

BUS 0000B	Accounting and Finance for the Small Business Owner	3
BUS 0140	Small Business Management	3
WELD 0010	Exploring Metals/Introduction to Gas Welding	2
WELD 0020	Introduction to Welding Technology - Career Path	3
WELD 0070	Principles of Fabrication	2.5
Total Units		13.5

Courses

Understanding course descriptions (p. 268)

WELD 0010. Exploring Metals/Introduction to Gas Welding

Units: 2

Hours: 72 (18 lecture, 54 laboratory)

History and development of joining metals, metalworking, and welding methods. Modern welding and fabrication techniques. Proper and safe use of modern metal fabrication equipment and hands-on experience with Oxy-Acetylene (Gas) welding based on an assigned student project. (CSU)

WELD 0015. Introductory Welding for Metalworking*Units: 2*

Advisory: Completion with grade of "C" or better or concurrent enrollment in WELD 10

Hours: 72 (18 lecture, 54 laboratory)

Focuses on the three common metal working processes of Stick, MIG, and TIG welding, including correct setup and "how to" techniques. Plasma arc cutting and Oxy-fuel cutting processes also covered. Designed for both students interested in the metal art field as a companion to ART 22, and for students wishing to pursue a career in welding by continuing on to WELD 20. (CSU)

WELD 0020. Introduction to Welding Technology - Career Path*Units: 3*

Advisory: Completion of WELD 10 or 15 with grade of "C" or better, or previous welding experience

Hours: 90 (36 lecture, 54 laboratory)

Theory, techniques and practice in position welding of Shielded Metal Arc, Gas Metal Arc, and Oxyacetylene welding. Plasma and Flame Cutting are also employed. Intended as a foundation welding technology course for students on the welding career path. (not transferable)

WELD 0025. Intermediate Welding Technology - Career Path*Units: 3*

Prerequisite: Completion with grade of "C" or better, or concurrent enrollment in WELD 20

Hours: 90 (36 lecture, 54 laboratory)

Emphasis on position welding techniques in Shielded Metal Arc (SMAW) and Oxy-Acetylene welding (OAW). Flux Core Arc (FCAW), Oxy-fuel flame Cutting (OFC) and Air Carbon Arc Cutting (CAC-C) are also performed. Intended as an intermediate level welding course for students following a career path in the welding field. Students who have taken WELD 30 are advised not to enroll in WELD 25. (not transferable)

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 0030. Advanced Shielded Metal Arc Welding of Structural Plate and Pipe*Units: 3*

Prerequisite: Completion of WELD 20 with grade of "C" or better

Advisory: Completion with grade of "C" or better or concurrent enrollment in WELD 25

Hours: 90 (36 lecture, 54 laboratory)

Advanced course on welding of structural plate and pipe using accepted practices of industry with Shielded Metal Arc (Stick) Process. Emphasis on the welding techniques used for out-of-position welding (3G-4G plate and 5G-6G pipe full penetration welds). (CSU)

WELD 0040. Wire Feed Welding Processes - Career Path*Units: 2*

Prerequisite: Completion of WELD 10 or 15 with grade of "C" or better

Advisory: Completion of WELD 20 with grade of "C" or better

Hours: 72 (18 lecture, 54 laboratory)

Gas Metal Arc and Flux Core Welding processes. Explores the various modes of metal transfer when using the Gas Metal Arc Welding process. In Flux Cored Arc Welding, both Self Shielding and Dual Shielding, are covered. (not transferable)

WELD 0050. Gas Tungsten Arc Welding (TIG) - Career Path*Units: 3*

Prerequisite: Completion of WELD 20 with grade of "C" or better

Advisory: Completion of WELD 15 with grade of "C" or better

Hours: 90 (36 lecture, 54 laboratory)

Tungsten Inert Gas Welding methods and techniques used to weld carbon steel, stainless, aluminum, and alloy steels. Instruction in equipment setup for different metals, filler selection, material identification, and welding techniques using Gas Tungsten Arc. Laboratory exercises include multiple positions of fillet and groove welds using carbon steel, stainless steel and aluminum of different thicknesses. (CSU)

WELD 0060. Welding Metallurgy*Units: 3*

Prerequisite: Completion of WELD 30 or 50 with grade of "C" or better

Advisory: Completion of CHEM A with grade of "C" or better

Hours: 90 (36 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 0070. Principles of Fabrication*Units: 2.5*

Prerequisite: Completion of WELD 20 with grade of "C" or better

Advisory: Completion of WELD 30 with grade of "C" or better; OR completion of WELD 25 and WELD 40 with grades of "C" or better
Hours: 99 (18 lecture, 81 laboratory)

Foundation 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 foundation skills of steel fabrication and construction process. (not transferable)

WELD 0074. Computer-Aided Metal Cutting Design*Units: 3*

Prerequisite: Completion of WELD 15 or 20 with grade of "C" or better

Hours: 108 (36 Lecture, 72 laboratory)

Study of Computer Numerically Controlled (CNC) cutting systems using industry standard hardware and development software. Topics include design principles, copyright, selection of materials appropriate for each cutting method, billing of materials and job estimating, comparison of plasma, water-jet, and laser cutting operations and methods, basic G and M code commands, use of consumables, cut quality evaluation, and trouble-shooting techniques. (not transferable)

WELD 0080. Structural Steel Welding Certification*Unit: 1*

Prerequisite: Completion of WELD 30 and 40 with grades of "C" or better

Advisory: Students must be competent in vertical and overhead position welding using certification welding processes of SMAW, FCAW-G and FCAW-S

Hours: 42 (6 lecture, 36 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 SMAW E-7018 in 4G and 3G, FCAW-G in 3G and FCAW-S in 3G and 4G in preparation for the actual certification test. (not transferable)

WELD 0082. Pipe Welding Certification - Uphill*Unit: 1.5*

Prerequisite: Completion of WELD 30 and 40 with grades of "C" or better; concurrent enrollment in or completion of WELD 80 with grade of "C" or better

Advisory: Students must be competent in horizontal, vertical and overhead position welding with open root groove joints using the welding processes of SMAW; if GTAW root pass certification is the goal, WELD 50 skill set competency for GTAW is also needed

Hours: 54 (14 lecture, 40 laboratory)

Designed to certify the welder within the guidelines of Section IX of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or the American Petroleum Institute (API) Standard 1104 Welding of Pipelines and Related Facilities. Focus on manipulative skill development using SMAW, GTAW and GMAW processes in preparation for the actual certification test. (CSU)

WELD 0083. Pipe Welding Certification - Downhill*Units: 0.5*

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in WELD 82

Advisory: Student must be competent in SMAW pipe welding with E-6010 electrode in position

Hours: 36 (5 lecture, 31 laboratory)

Downhill pipe welding to prepare to certify within the guidelines of American Petroleum Institute - welding of cross-country pipelines. Focus on manipulative skill development in preparation for certification test using downhill techniques. (not transferable)

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. 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)

- 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

Division

Liberal Arts

Dean

Rebecca Bocchicchio

Associate Deans

Anne Fleischmann, Susan Lucyga

Division Office

W 107, Rocklin Campus

Overview

Faculty

Matt 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

Stephanie Coday**Professor, Psychology/Women and Gender Studies**

B.A., San Diego State University

M.A., Alliant International University

Jay Hester**Professor, History/Women and Gender Studies**

B.A., University of California, Santa Barbara

M.A., University of Missouri, Columbia

Winsome Jackson**Professor, Political Science/Women and Gender Studies**

B.A., University of Vermont

M.P.A., Suffolk University

Ed.D., University of San Francisco

Patricia Lord**Professor, English/Women and Gender Studies**

B.A., California State University, Chico

M.A., California State University, Chico

Lynnette Medeiros**Professor, History/Women and Gender Studies**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

Jennifer Molina-Stidger**Professor, Anthropology/Women and Gender Studies**

B.A., University of California, Davis

M.A., University of New Mexico

Megan Seely**Professor, Sociology/Women and Gender Studies**

B.A., California State University, Chico

M.A., California State University, Sacramento

Kathleen Taylor**Professor, Psychology/Women and Gender Studies**

B.A., California State University, Sacramento

M.A., California State University, Sacramento

M.A., University of California, Davis

Ph.D., University of California, Davis

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

B.A., San Diego State University

M.A., San Diego State University

Soni Verma**Professor, Psychology/Women and Gender Studies**

B.A., Lady Shri Ram College for Women

M.A., Delhi University

M.Phil., National Institute of Mental Health and Neurosciences

Liaison Counselors

Marcia Braga, Elena Farrelly

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. 250);
- California State University General Education Breadth (p. 257) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (p. 263).

Required Courses

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	
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)
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Total Units**18****Courses**

Understanding course descriptions (p. 268)

WMST 0001. Introduction to Women's Studies*Units: 3*

Formerly known as SSCI 27

Prerequisite: Eligibility for ENGL A

Hours: 54 lecture

Examination of the varying roles of women in society, emphasizing the diversity of both local and transnational women's experiences. Investigation includes history, embodiment, scientific and cultural representations, work, family, artistic production and social movements. Focuses on power and gender roles and how they vary for women and men of different racial, ethnic, class, national, ability and sexuality groups. (CSU, UC)

WMST 0002. Introduction to LGBT Studies/Queer Theory*Units: 3*

Also known as LGBT 1

Advisory: Eligibility for ENGL 1A

Hours: 54 lecture

A broad and general exploration of Queer Theory as an historical consequence of Feminism and Gay and Lesbian Studies. Emphasis on theoretical and philosophical underpinnings of Queer Theory, Social Construction versus Essentialism, Postmodernist theory, politics, LGBT Studies and Queer Culture. (CSU, UC)

WMST 0003. Introduction to Women, Gender and Religion*Units: 3*

Also known as HUM 9

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 A 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. Provides an overview of the ways in which women 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. (CSU, UC)

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.

STUDENT RESOURCES

- Admission and Enrollment (p. 230)
- Student Services and Support (p. 237)
- Associate Degrees and Certificates (p. 244)
- General Education (p. 250)
- Course Information (p. 268)
- Academic Standards, Policies, and Procedures (p. 290)

Admission and Enrollment

- Admission (p. 230)
- Getting Started at Sierra College (p. 231)
- Student Enrollment and Attendance (p. 234)
- Academic and Transfer Credit Programs (p. 235)

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 or more 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, also available in Spanish and Russian, may be obtained at a campus Admissions and Records office. Additional admission information in Spanish and Russian is also available online. Students are encouraged to submit official high school and college transcripts to an Admissions and Records office.

Each semester the college offers registration opportunities to those who file an application for admission and complete the “Steps to Success.” Dates are published online or may be obtained by calling (916) 660-7340 or (530) 274-5302.

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.

California residency shall be established for students who qualify under one of the following conditions:

1. If 19 years of age or over, has resided in California and has “manifested the intent” to make California their residence for at least one year and one day prior to the beginning of the semester.
2. If 18 years of age and both the student and the student’s parent or legal guardian have resided in California and have “manifested the intent” to make California their residence for at least one year and one day prior to the beginning of the semester.

3. If under 18 years of age and the student’s parent or legal guardian has resided in California and has “manifested the intent” to make California their residence for at least one year and one day prior to the beginning of the semester.

Any student not meeting one of the above requirements will be classified a nonresident. Regulations allow certain students to apply for nonresident tuition waivers. Contact an Admissions and Records office for further information.

Nonresident students who wish to request a residency status change must submit a residency reclassification petition by the end of the semester in question. Residency documents should be submitted to a campus Admissions and Records office the semester prior to the change of status.

International Students

International students attend Sierra College from around the world. Each semester more than 47 different countries are represented at the college. Regardless of TOEFL scores, all students take assessment tests to determine placement in appropriate courses. Based on test results, college-level and/or ESL courses will be recommended. Assistance with the application and registration process is provided by the International Students Office (ISO), located in the J Building, Room 8. Contact the ISO directly for application materials at (916) 660-7330, email internationalstudents@sierracollege.edu or access international student information and application forms on the college web site at www.sierracollege.edu/int (<http://www.sierracollege.edu/int>).

International students wishing to apply for study to the college on an F-1 visa must submit the following to the International Students Office:

1. A completed Sierra College International Student Application.
2. Meet at least one of the following English Language Requirements: Score at least 133 CBT (Computer Based Test), 450 PBT (Paper Based Test), or 45 iBT (Internet Based Test) on the TOEFL exam.
OR
Enroll in the “English as a Second Language” (ESL) program at Sierra College. 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 \$17,000.00 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 \$100.00 payable to Sierra College in the form of a MasterCard or Visa credit card, wire transfer, cashier’s check, or check drawn on a U.S. bank (do not send cash). The \$100.00 will be credited toward tuition at the time of registration.

International Student Priority Application Deadlines

(for students transferring from another U.S. college):

Fall semester	July 1
Spring semester	December 1
Summer session	May 1

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.

Mandatory Sierra College Health Insurance

All international students attending Sierra College must purchase mandatory health insurance. There are no exceptions, even for students who have health insurance through their home countries.

Other Important Health Information

When traveling from country to country, a student may be exposed to different diseases. Sierra College strongly encourages the following immunizations: Tetanus, Measles and Rubella.

Academic Enrichment Program

Sierra College provides special part-time admission to students who:

- have completed the tenth grade;
- are at least 15 years of age;
- have a GPA of 3.0 or above; and
- assessed into the appropriate transfer level courses.

Students must attend a high school which has a current Academic Enrichment Compliance form on file in the Admissions and Records office. Home schooled students or those attending a charter school must have an affidavit indicating they are legally home schooled or attending a charter school.

Students must submit a Sierra College application for admission, an Academic Enrichment Permission form, and an official high school transcript each semester. Enrollment must be recommended by the school principal or counselor, 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 7 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. Contact a campus Admissions and Records office for more information.

Getting Started at Sierra College

The Student Success and Support Program (SSSP) increases student access and success through the provision of core services, including orientation, assessment and placement, counseling, advising, and other education planning services.

Steps to Getting Started

1. Apply for admission.
2. Submit official transcripts.
3. Activate mySierra account.
4. Complete orientation.
5. Complete assessment-placement.
6. Meet with counselor to develop Student Educational Plan (SEP).
7. Register for classes.
8. Pay fees.

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:

- Participate in assessment and orientation
- 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 orientation, assessment-placement, and new student group counseling prior to registering for classes.

Orientation

Orientation to Sierra College is delivered online through mySierra (the password protected portal that gives users access to secured information on the Sierra College intranet). Orientation provides information about programs, student support services, academic expectations and registration procedures.

Assessment-Placement

As part of the process to enhance student success, Sierra College requires assessment testing for reading, mathematics, English and/or English as a Second Language. Course placement services include evaluation of the following documents:

- high school and other college transcripts;
- Early Assessment Program (EAP) results;
- ACT, AP, ELM, IB, and SAT results; and
- other two-year regionally accredited college assessment reports.

Counseling

Sierra College provides new student group counseling sessions in which students work with counselors to develop Student Educational Plans (SEP). Counselors may also refer students to support services and answer specific questions and concerns.

Exemptions

Some students are exempt from orientation, assessment-placement, and counseling requirements. Nevertheless, students are encouraged to avail themselves 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 the counseling office in the Winstead Center on the Rocklin campus.

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 orientation, assessment, counseling, 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).

Category 1

- Foster youth or former foster youth up to 24 years of age.
- Veterans or members of the Armed Forces of the United States who are California residents and received honorable, general, or other than honorable discharge; and members or former members of the State Military Reserve within 15 years of leaving state or federal active duty.
- Students eligible for and receiving services through Disabled Students Programs and Services (DSPS).
- Students eligible for and receiving services through Extended Opportunity Programs and Services (EOPS).
- CalWORKS students.

Category 2

- TRiO students.
- International students.
- Intercollegiate student athletes.
- Continuing students.
- Returning students.
- Ghidotti Early College High School students.
- New students.

Category 3

- Students who have lost enrollment priority.
- All other students, including 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.

Students who are placed on academic or progress probation, or who have earned 75% or more of the 100 unit limit will be notified of the potential for loss of enrollment priority.

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. 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. and registration.

Waitlists

20-space waitlists are established for every class offered by Sierra College. When a class reaches maximum enrollment, eligible students may add themselves to the waitlist. When a space in the class becomes available, the first student on the waitlist will receive notification through mySierra email. The student will then have 48 hours to register. If the student does not register, they will be removed from the waitlist and the next student on the list will be sent an email notification. This process will continue until all available seats are filled. It is recommended that students regularly monitor their email and waitlist status.

Students remaining on a waitlist after the class begins must attend the class. Faculty adding students on the first and/or second day of class will give priority to students in waitlist order. Students failing to appear for the first and second class meetings will lose their place on the waitlist.

For more information, read the waitlist FAQs on the website or contact an Admissions and Records office.

Add/Drop Period

Registration is available during the first two weeks of the fall and spring semesters. Permission to add must be obtained from the class professor. The professor supplies each student with a 4-digit add code that allows the student to add 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 website for registration details and deadline dates and times.

Note: Under no circumstances will class registration be processed after the withdrawal deadline.

Payment Information

Fees and tuition are due at the time of registration. To avoid being dropped for non-payment, students must pay the fees and tuition within ten days of registration OR the Thursday of the week before class begins, whichever comes first.

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, 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. For further information, visit www.sierracollege.edu/payment (<http://www.sierracollege.edu/payment>).

Enrollment Fee

Sierra College charges a State-mandated enrollment fee of \$46.00 per unit each semester. Fees, especially those established by the California State Legislature, 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 at least one week 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:

- \$19.00 per semester for students enrolled in fall or spring semester class(es);
- \$16.00 for students enrolled in summer session class(es)

Exemptions are given for:

- Recipients of Board of Governor's fee waiver Type "A";
- Students enrolled exclusively in contract education classes, noncredit classes, or Public Safety In-Service Training classes;
- Students enrolled in the District's Academic Enrichment Program;
- Students exclusively auditing classes;
- Students who are dependent upon prayer for healing (contact an Admissions and Records office 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 schedule of classes. Instructional Materials Fees are collected at the time of registration.

Nonresident Student Tuition

Under state law, all community colleges are required to charge tuition to out-of-state residents and international students. The charge for the 2015-2016 catalog year is \$196.00 per unit. Nonresident tuition is in addition to the enrollment fee.

In accordance with Education Code section 68130.5, all students other than nonimmigrant aliens under 8 U.S.C. 1101(a)(15), are eligible for exemption from nonresident tuition if the following requirements are met:

- Attended a California high school for at least three years; and
- Graduated from a California high school, earned a California GED, or passed the California high school proficiency examination.

Students without lawful immigration status (undocumented aliens) are also eligible for this waiver if, in addition to the above criteria, they have applied for legalization or intend to do so as soon as they become eligible. Contact an Admissions and Records office for more information and to complete a questionnaire form to verify eligibility.

Nonresident Student Capital Outlay Fee

In addition to the enrollment fee and nonresident student tuition, nonresident students must pay a Nonresident Student Capital Outlay Fee of \$10.00 per unit. This fee is mandatory unless students can show "economic hardship." Students wishing to apply for an economic hardship waiver must submit the completed paperwork to an Admissions and Records office.

Definition of Economic Hardship: Victim of persecution or discrimination in the foreign country in which the applicant is a citizen and resident, or who is a recipient of benefits under the Temporary Assistance for Needy Families program, the Supplemental Income/State Supplementary Program, or a general assistance program.

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 the Financial Aid Office for details.

Regular Semester Fee

Standard Permit—Rocklin and Nevada County	\$50.00
Standard Permit—Tahoe-Truckee	\$40.00
Standard Permit—Financial Aid Eligible	\$25.00
Carpool Permit	\$35.00
Motorcycle Permit	\$13.00

Summer Session

Standard Permit—All Campuses	\$25.00
Standard Permit—Financial Aid Eligible	\$25.00
Carpool Permit	\$25.00
Motorcycle Permit	\$5.00

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 website at www.sierracollege.edu (<http://www.sierracollege.edu>).

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 either the Rocklin, Nevada County or Tahoe-Truckee Campus Admissions and Records office. 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.

A Student Body Activity Sticker may be purchased each fall and spring semester for \$10.00. The sticker, when affixed to the ID card, provides student discounts at campus activities, performances, and athletic events, discounts at local participating businesses, and access to wireless Internet service at specific locations on campus. The sticker may be purchased through mySierra. Contact the Rocklin Campus Life Office at (916) 660-7380 for further details including refund information.

Student Center Fee

The mandatory Student Center Fee is designated solely for the purpose of funding 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. Exemptions are given to:

- Recipients of Board of Governor's Fee Waiver Type A; and
- Students enrolled exclusively in noncredit courses.

Additional Semester Expenses ¹

The following are approximate costs of other fees and expenses for a full-time student for one semester:

Room and Board (on campus)	\$3,600.00
Books and Supplies	\$400.00
Transportation (by car)	\$700.00
Personal (clothes, recreation, etc.)	\$900.00

¹ *These are estimates and are subject to change. Personal expenses vary with individual needs and tastes.*

Refunds

Enrollment, health and student center fees are refundable to students who are dropped or drop themselves from full-term classes by the published deadline. For specific short-term class refund deadlines, students should refer to their printed student schedule/bill, check their mySierra account, contact their professor or contact an Admissions and Records office. Note: Refunds are not issued to students who drop or are dropped 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 withdraws from Sierra College within the first six weeks of a semester, or the first two weeks of a summer session.

Refunds are automatically processed six to eight weeks after the semester begins. Disbursement options include direct deposit to a bank account, loaded on a Wolverine One Card, or a paper check via U.S. mail. Please visit www.sierracollege.edu/onecard (<http://www.sierracollege.edu/onecard>) for more information.

Parking Permit

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 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 who 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.

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 dropped by the professor. Instructors shall clear their rolls of inactive students not later than the end of the last business day before the census day (typically Monday of the third week for full-term classes). 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 drop 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 website for specific drop and withdrawal deadlines.

Full-term classes dropped by the Add/Drop deadline (within the first two weeks of the semester) will not appear on the student's academic record. Short-term and summer session 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 rolls of “no show” and inactive students not 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. (Military withdrawals are not included in this limitation.)

Enrollment Status

Students are responsible for their enrollment status at all times. Credit is not given for courses in which a student is not officially enrolled. For purposes of student enrollment verifications, a full-time student is one enrolled in 12 or more units during a semester. A half-time student is one enrolled in 6–11.5 units and a part-time student is one enrolled in less than 6 units. For the summer session, 4 units is considered full-time; however, this does not apply in the determination of financial aid eligibility.

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 credit 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 timeframes.

Academic and Transfer Credit Programs

Advanced Placement Examination

Sierra College accepts Advanced Placement (AP) examinations with scores of three or higher. Currently enrolled students may be awarded up to six 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 Code=4697). 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.

Duplicate credit will not be awarded for AP examinations and college courses. AP credit will not be used to alleviate a substandard grade. If a student subsequently duplicates an AP examination with a college course, credit for the examination will be removed.

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.

Air Force ROTC

Air Force Reserve Officer Training Corps is available to Sierra College students through a program offered at California State University, Sacramento. The CSUS Department of Aerospace Studies offers three- and four-year programs leading to a commission in the United States Air Force. All coursework is completed on the CSUS campus. Qualified students may compete for a very limited number of nationwide scholarships. Application to the program should be no later than the first semester of the sophomore year. Juniors may apply under certain conditions. Contact the CSUS Recruiting Flight Commander at (916) 278-7315 for information.

College-Level Examination Program (CLEP)

Students with scores of 500 or better on College-Level Examination Program (CLEP) tests covering the general areas of Social Sciences and History, Humanities and Natural Sciences may receive 6 units of elective credit for each score; a maximum of 18 units may be granted. To request credit, students must submit a General Student Petition and an official copy of the exam scores to a campus Admissions and Records office. Credit granted has no bearing on the student’s GPA. Students must complete 12 units at Sierra before CLEP credit will be awarded.

CSU GE-Breadth and IGETC Certifications

Students transferring to California State Universities have the option of completing the CSU General Education-Breadth pattern to meet lower-division general education requirements. Students admitted to a CSU campus with full certification may not be held to any additional lower-division general education requirements. Upon transfer to a CSU campus, students must take nine units of upper-division general education courses.

The Intersegmental General Education Transfer Curriculum (IGETC) provides an option for students to fulfill lower-division general education requirements before transferring to either a CSU or a UC campus. Students transferring to a CSU campus may choose to use the CSU GE-Breadth pattern in lieu of IGETC, as all of the IGETC coursework is embedded in the CSU GE-Breadth pattern.

Students may use certain Advanced Placement (AP) examinations with scores of 3 or higher to meet areas of CSU GE-Breadth and IGETC. Certain International Baccalaureate (IB) examinations with scores of 4 or higher may be used toward CSU GE-Breadth and scores of 5 or higher to meet areas of IGETC.

The CSU GE-Breadth and IGETC courses are approved annually for the academic year. If a course is taken before it is approved or after it is removed, it cannot be used to satisfy CSU or UC transfer general education. The CSU GE-Breadth and IGETC course lists for all California Community Colleges are available at www.assist.org (<http://www.assist.org>).

Students must request that a General Education Certification or an IGETC Certification be sent to the transfer institution along with the final Sierra College transcript.

Students pursuing majors with extensive lower-division unit requirements, such as Engineering, are advised to focus on completing the pre-major requirements while meeting minimum admission requirements. See a counselor for more information on either of these transfer general education certification programs.

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 passed "With Honors." For more information, visit www.sierracollege.edu/student-services/specialized-programs/honors (<http://www.sierracollege.edu/student-services/specialized-programs/honors>).

International Baccalaureate Examination

Sierra College accepts International Baccalaureate (IB) Higher Level examinations with scores of four or higher. 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.

Duplicate credit will not be awarded for IB examinations and college courses. IB credit will not be used to alleviate a substandard grade. If a student subsequently duplicates an IB examination with a college course, credit for the examination will be removed.

Transfer students are cautioned that, regardless of Sierra College policy, some institutions determine IB credit based on their own local policies and may recalculate credit. For further information please consult a counselor.

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 one of the following agencies:

- Academic Records Evaluation Center
- Educational Records Evaluation Service
- International Education Research Foundation, Inc.
- World Education Services, Inc.

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 general education/learning skills or major courses must submit course descriptions in English with course substitution petitions.

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.

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>); this information should be interpreted with the assistance of a Sierra College counselor.

Transfer Credit Acceptance

Official transcripts from regionally accredited institutions will be evaluated for all lower-division degree-applicable credit courses. Appropriate units and subject content will be applied to major and general education areas to meet graduation requirements. Students who completed courses at other colleges should meet with a counselor to determine which courses fulfill Sierra College's degree or certificate requirements.

Transfer credit is also used to fulfill prerequisite requirements. To ensure timely and accurate posting of transfer units to your Sierra College record, please submit a sealed official transcript to a campus Admissions and Records office.

2 + 2 Articulation Program

2+2 Articulation is a planned process linking programs and services to assist students in making smooth transitions from secondary to postsecondary levels without experiencing delays or duplication of learning. 2+2 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 and have completed other requirements of the agreement. Contact the career and transfer connections office for further information.

Student Services and Support

- Financial Aid (p. 237)
- Student Services and Resources (p. 239)
- Student Activities (p. 244)

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. 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.

Application Process

To apply for financial aid, all students must complete a Free Application for Federal Student Aid (FAFSA). The FAFSA uses 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 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 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 (FWS);
- William D. Ford Federal Direct Loan Program;
- Board of Governors Fee Waiver Program (BOGFW);
- Cal Grants B and C;
- Extended Opportunity Programs and Services Grants (EOPS); and
- Scholarships.

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. Students may monitor their lifetime eligibility at https://www.nsls.ed.gov/nsls_SA/SaFinShowSummary.do. The maximum students can use in a lifetime is 600%.

Financial Aid Satisfactory Academic Progress

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. Students who do not complete any units in the semester will be terminated from financial aid as soon as grades are available.

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 2015, students must be enrolled in all units by September 8, 2015. For spring 2016, students must be enrolled in all units by February 8, 2016.

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," 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 75% 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 Advisory Committee (FAAC).

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 75% 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 units applicable to the current educational objective 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 75% 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 75% of all enrolled units for the semester, but complete at least .5 unit. Students are removed from warning at the end of the next semester if they complete at least 75% of their units with a 2.0 GPA.

Termination: Students are terminated if they complete zero units or if they were on warning from a previous semester and then completed less than 75% 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 75% of their units and achieve a cumulative GPA of 2.0. Students placed on financial aid reinstatement probation are not eligible for student loans. Students placed on maximum unit probation may receive federal student loans.

75% Completion Rate: Students must pass at least 75% of their coursework each semester.

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 will 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 a written appeal to the Financial Aid Advisory Committee (FAAC). 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 on the Student Education Plan.

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 Bursar's 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 method selected by the student (debit card, direct deposit, or paper check). Debit cards and checks are sent to the mailing address on file with admissions and records.

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. Allow additional time for new debit cards and paper checks to be received in the mail.

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.

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.

Selective Service

All males under the age of 26 must register with the Selective Service. Failure to do so may jeopardize student eligibility for federal financial aid.

Student Services and Resources

Academic Foundations Program

The Academic Foundations Program is a combination of courses and support services that help students succeed in college and beyond. Students build skill level and knowledge in reading, writing, math, ESL, basic computer applications and finding, retrieving and evaluating information. The program provides:

- Placement in appropriate courses through assessment testing;
- Counselors who map out schedules that help students accomplish their goals;
- Courses with a slower pace, more one-on-one time with instructors and more labs and instructional assistants to provide extra help;
- Coordination between instructors and support services staff to provide students with learning disabilities testing, free one-on-one tutoring, drop-in Writing Center assistance and more;
- Instructors who meet periodically throughout the semester for training and discussion in order to help maximize students' learning; and
- Workshops throughout the semester that help students improve their skills in many different areas.

Students enter the program primarily through assessment testing. After taking the assessment tests, students make an appointment for a one-hour orientation session, followed by a one-on-one appointment with a counselor who helps them enroll in courses suited to their particular skill level.

Students placing into higher-level courses may choose to enroll in Academic Foundations courses in order to master concepts and achieve greater academic success across the curriculum.

For more information, see "Remedial Coursework Limit" in this catalog and the Sierra College website.

Courses in the program include:

CIS 0030	basic computer skills
ENGL 0501, ENGL 0000A, ENGL 0000N	writing
ENGL 0560, ENGL 0570, ENGL 0050	reading
ESL 0500G, ESL 0500L, ESL 0500R, ESL 0500W, ESL 0510G, ESL 0510L, ESL 0510R, ESL 0510W, ESL 0520G, ESL 0520L, ESL 0520R, ESL 0520W, ESL 0530G, ESL 0530L, ESL 0530R, ESL 0530W, ESL 0540C, ESL 0540R, ESL 0540W	writing, grammar, reading, listening
LRDS 0610	learning disabilities assessment
MATH 0581	arithmetic
MATH 0582	pre-algebra
MATH 0000A	basic algebra
PDEV 0001	college success
PDEV 0006	career and life planning

PDEV 0008

introduction to college

Assessment-Placement Center

As part of the process to enhance student success, the Sierra College Assessment-Placement Center requires assessment testing for English, Reading, Mathematics, and English as a Second Language (ESL). Additionally, students wishing to register in CHEM 0001A must take the Chemistry Diagnostic Test.

Sierra College offers an online placement tool that helps to determine if high school students can be placed in English, reading and mathematics courses using high school transcripts. The placement tool is available on the assessment website.

Course placement services include evaluation of the following documents:

- high school and other college transcripts;
- Early Assessment Program (EAP) results;
- ACT, AP, ELM, EPT, IB, and SAT results; and
- other two-year regionally-accredited college assessment reports.

All documents must be submitted at least five days prior to the planned registration date and may be submitted in person to the Assessment-Placement Center or by one of the following methods:

- Email: assessment@sierracollege.edu
- Rocklin Campus Fax: (916) 630-4513
- Nevada County Campus Fax: (530) 274-5307

See "Prerequisites, Corequisites and Advisories" in this catalog for further information regarding clearance and appeal procedures.

All students must complete their initial assessments or placements before registering for classes. After the application for admission has been processed and the student identification number (ID) issued, students may schedule an assessment appointment. Appointments may be made online via mySierra or by calling one of the following numbers:

Rocklin Campus (916) 660-7430

Nevada County Campus (530) 274-5303

Tahoe-Truckee Campus (530) 550-2225

Students arriving for the appointment at the Assessment-Placement Center must present a valid photo identification, such as a driver's license or high school ID. Results are available immediately after testing and may be viewed online via mySierra under the link, 'View Assessment/Placement Results.'

It is the responsibility of the student to meet course prerequisites and corequisites, which are published in the schedule of classes and in this catalog.

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 <http://sierra.bnccollege.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.

Rocklin Campus Bookstore Hours and Information

Monday–Thursday, 7:30 a.m.–6:30 p.m., Friday, 7:30 a.m.–12:00 p.m. Extended hours—first and last week of each semester; check the website for current hours. For further information call (916) 660-8200.

Nevada County Campus Bookstore Hours and Information

Monday–Thursday, 9:00 a.m.–1:00 p.m., 2:00 p.m.–6:30 p.m. Extended hours—first and last week of each semester; check the website for current hours. For further information call (530) 274-5305.

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 cafeteria is housed in the Campus Center. Hot and cold food service available in the cafeteria includes: deli bar, grill, pizza and a coffee bar. Hours are subject to change; see the website for current hours.

The Nevada County campus cafeteria, located in the “C” building, provides a variety of food services Monday through Thursday, including vending machines.

CalWORKs

The CalWORKs program provides support services focused on helping Temporary Assistance for Needy Families (TANF)/cash aid recipient students obtain the necessary education and skills to begin and enhance their career growth and achieve long-term economic self-sufficiency. The program provides eligible students with counseling, work study opportunities for on-campus employment, assistance with campus services and referrals to public and private agencies as needed. The CalWORKs program objective is to assist students in achieving their educational and occupational goals. CalWORKs students may contact the Sierra College CalWORKs office at (916) 660-7367 or (530) 274-5322 in order to ensure that they meet their county CalWORKs requirements and can remain at Sierra College for educational training. Sierra College CalWORKs is not part of the county welfare department.

Career Connections

Career Connections, housed within Career and Transfer Connections in the Winstead Center (Room L-107) at the Rocklin Campus, offers resources to assist students in making career decisions, researching employment opportunities and developing job search skills. It houses a variety of printed materials, which includes information about current

Sierra College majors, labor market trends, job search techniques, occupations, career decision making and employment. It is equipped with several interactive computerized career information systems which aid students in career development and planning, researching occupations and researching financial aid and scholarship information. Career development workshops related to career decision making and job search skills are offered each semester.

Career Connections also offers students a variety of experiential career exploration opportunities including informational interviews, job shadowing and internships. All of these opportunities are designed to help students explore career options and obtain first-hand information regarding their field of interest. Career Connections maintains a database of local professionals and businesses that have offered to assist students with their career exploration. There is also a listing of local professionals available to serve as guest speakers for classes or other forums.

Students are encouraged to visit Career Connections often as part of their regular study time and to take advantage of the materials and activities available to them. Members of the community who wish to use the computerized career information systems may access these resources for a fee. For additional information about Career Connections, email careerconnections@sierracollege.edu, call (916) 660-7481 for the Rocklin campus, call (530) 274-5303 for the Nevada County campus, or visit www.sierracollege.edu/careerconnections (<http://www.sierracollege.edu/careerconnections>).

Child Development Services

Sierra College offers several child development programs for students and the nearby community. The Sierra College Child Development Centers serve as teacher training lab sites for Sierra College students pursuing careers working with children and families. Students are supervised by staff and faculty. All programs are staffed by certificated, nurturing teachers who view learning as an active process where children learn best and gain self-confidence when ample opportunities exist for direct hands-on experiences and decision making in a planned, content rich, “play” oriented curriculum.

Sierra College offers State Preschool Programs at no cost to income eligible families. State Preschool serves 3 to 5 year olds and operates two sessions on the Rocklin campus, as well as two at Little Blue Schoolhouse in Lincoln and one at Rock Creek Elementary School in Auburn. State Preschool sites operate a three-hour morning and a three-hour afternoon session, with full-day options at the Rock Creek site.

During the school year, the Nevada County Campus Child Development Center operates a Head Start/State Preschool program for ages 3 through 5. In addition, a full year, full-day Early Head Start Toddler program enrolls children, ages 18 - 36 months.

For hours of operation and further information, contact the individual sites:

- Sierra College Child Development Center, Rocklin Campus State Preschool, (916) 660-8240
- Nevada County Campus Child Development Center, Grass Valley, (530) 274-5350
- Little Blue Schoolhouse, Lincoln, (916) 434-9036
- Rock Creek State Preschool, Auburn, (530) 823-0380

Cooperative Agencies Resources for Education (CARE)

The CARE program provides services for those EOPS students who are single heads of household, receiving CalWORKs cash aid, and have at least one child under the age of fourteen. Students may also be eligible if a dependent child in the family receives CalWORKs cash aid.

CARE students may receive, in addition to the services provided to EOPS students, an additional 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

Online counseling services are available through the online counseling center on the website.

Disabled Students Programs and Services

Additional support services are available to disabled students to ensure an equal opportunity to participate in the educational process at Sierra College. The goal is to help psychologically, physically and learning disabled persons achieve their educational objectives through counseling and other appropriate services.

- For the Rocklin Campus or Roseville Gateway Center, call (916) 660-7460.
- For the Nevada County Campus or Tahoe-Truckee Campus, call (530) 274-5330.

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. Television courses are broadcast live from the Rocklin Campus Library and are distributed to cable companies within the District, streamed live on the Internet, and archived for two weeks on our iTunes U site. Students are able to interact with their professor during

the live class via telephone. Hybrid courses, which are a combination of online and on-ground formats, are also offered.

Distance learning support and test proctoring are located in the Learning Resource Center on the Rocklin and Nevada County campuses, and in the library on the Tahoe-Truckee campus. For more information, go to <http://www.sierracollege.edu/distancelearning>.

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 or the Nevada County EOPS office at (530) 274-5306 for further information and application assistance.

Health Services

Sierra College Health Centers offer a wide variety of services. Nurse practitioners, mental health counselors 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 counseling
- 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 our Rocklin campus. North Hall is a two-story co-ed residence hall. A total of 121 students live in double occupancy rooms; two double rooms share a bathroom. Facilities that are available for residents include 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. Since campus housing is limited, Housing Interest Forms should be submitted

as early as possible. Campus Housing Interest Forms and information may be obtained by calling the Housing Office at (916) 660-7389 or online at www.sierracollege.edu/housing (<http://www.sierracollege.edu/housing>). The Housing Office is located in the Z Building.

Learning Opportunity Center

Sierra College offers a strong support program for students with verified learning disabilities. Services are provided to assist students in developing the skills they need to meet the academic demands of college and benefit fully from their educational experience.

A learning disability affects the information processing systems of individuals with average or above intelligence. This interference may affect intake, retention, retrieval, or expression of information. Students are evaluated individually through the LRDS 0610 assessment course. The following support services are then provided for eligible students:

- Individual education plans
- Perceptual Development Program
- Test taking facilitation
- Compensatory learning strategies
- Computer Assisted Instruction
- Accommodations as needed
- Priority registration

Sierra College is committed to supporting learning disabled students in reaching their academic or vocational goals. For further information regarding this program please call the Rocklin campus at (916) 660-7450, or the Nevada County campus at (530) 274-5330.

Library/Learning Resource Center

The Rocklin campus library offers students a collection of over 85,000 print and 140,000 electronic books, various course textbooks available on reserve, and 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, and computers are available for library database and Internet research. The library website (<http://lrc.sierracollege.edu>) also offers online research guides and information literacy tutorials.

An open access computer laboratory is available to registered students. On the ground floor of the Rocklin campus Learning Resource Center, the Ridley Art Gallery offers exhibits from both the campus and the larger community.

While classes are in session during the fall and spring semesters, the Rocklin campus library is open Monday through Thursday from 7:30 a.m. to 8:00 p.m., Friday from 7:30 a.m. to 4:00 p.m., and Sunday from 12:00 p.m. to 8:00 p.m. These hours vary during the summer sessions and holiday weeks; see the library website for current hours.

The Nevada County campus library occupies a two-story building and provides a full range of library services, as well as serving as the campus testing center. A faculty librarian is at the reference desk most of the library's open hours. The open stack book and media collections shelve 20,000 titles and 100 print periodicals. Computers are available for research and homework. The library is open during the fall and spring semesters Monday through Thursday, 9:00 a.m. to 6:30 p.m. and Friday, 9:00 a.m. to 12:00 p.m. Summer session and holiday week hours are as announced.

The Tahoe-Truckee campus provides a range of library services in the Learning Center. While fall and spring classes are in session, hours are Monday through Thursday from 10:00 a.m. to 6:30 p.m. and by appointment.

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.
- 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.

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) 660-7317 or the Nevada County campus financial aid office at (530) 274-5346.

Parking and Security Services

The District Parking and Security Services office is located in building Xt, Room 1 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 online at www.sierracollege.edu/about-us/admin-services/security/index.php (<http://www.sierracollege.edu/about-us/admin-services/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 Parking and Security Services office may be reached at (530) 274-5323.

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/Latino community. The Puente Program is co-sponsored by the University of California and the California Community College Chancellor's Office. Applications and enrollment eligibility information (<http://www.sierracollege.edu/student-services/specialized-programs/puente>) are available on the Sierra College website or by contacting a campus Counseling department.

Transfer Services

Transfer services are provided through Career and Transfer Connections on the Rocklin campus in the Winstead Center, Room L-107. Resources and services are available to all students. Transfer Services facilitates the transition from Sierra College to a baccalaureate college or university. Services are designed to reduce the complexity of transferring by using articulation and transfer agreements, transfer workshops, career and major preparation workshops, and transfer college fairs.

Admission counselors from local universities, such as CSU Sacramento and UC Davis, visit the Rocklin campus regularly to meet individually with students and provide information about admission, specific majors, general education requirements and transfer procedures. Additional university admission advising may be available via online or phone appointments.

Sierra College has Transfer Admission Guarantee (TAG) programs with UC Davis, UC Irvine, UC Merced, UC Riverside, UC Santa Barbara, and UC Santa Cruz. Meeting eligibility requirements for a TAG necessitates careful course planning. Students who are considering transfer to the University of California are advised to meet regularly with a Sierra College counselor for advisement.

For information about transfer, contact Career and Transfer Connections at the Rocklin campus at (916) 660-7481 or email transferservices@sierracollege.edu. For information about transfer at the Nevada County Campus call (530) 274-5303.

Tutorial Services

The Learning Center provides students with the academic support needed to achieve success. Free tutorial services are provided to students for classes in which they are enrolled at Sierra College.

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 in their classes are encouraged to inquire about the possibility of becoming paid tutors.

For further information, contact the Rocklin Campus Learning Center at (916) 660-7220, Room LR-446; or the Nevada County Campus Learning Center at (530) 274-5308, Room N2-202, or see our website at www.sierracollege.edu (<http://www.sierracollege.edu>).

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/African American and other students, seeking to educate the whole student—body, mind and spirit. The curriculum focuses on improving reading, writing, self-discipline and critical thinking skills. Program counselors provide assistance with the personal issues that often hinder Black/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 (<http://www.sierracollege.edu/student-services/specialized-programs/umoja>)

are available on the Sierra College website or in the Rocklin campus Counseling Center. For additional information, contact Tonya Times at (916) 660-7415.

Veterans Resource Center

The Sierra College Veterans Resource Center provides assistance to veterans and their dependents who are eligible for various educational benefits. The Sierra College Veterans Resource Center is located at the Rocklin campus, Building LR, Room 224. The phone number is (916) 660-7470, or visit our website at www.sierracollege.edu/veterans (<http://www.sierracollege.edu/veterans>).

Students receiving GI Bill benefits are subject to the following general policies and requirements:

- Completion of the “Steps to Success,” which includes assessment-placement in reading, English and mathematics, attending orientation and meeting with the Sierra College Veterans Counselor. New students must complete these requirements before the start of their first semester.
- Official transcripts from all prior colleges, universities and training institutes must be submitted to the Sierra College Veterans Resource Center.
- 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.

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, Learning Resource Center, Room 424, at the Rocklin Campus, or Room N2-202 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 (916) 660-8093 or (530) 274-5265.

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 shared governance of Sierra College. The officers of the Student Senate represent the students to the faculty, staff, and 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. For a complete list of campus clubs, visit www.sierracollege.edu/student-services/campus-life/clubs/index.php (<http://www.sierracollege.edu/student-services/campus-life/clubs>).

The Campus Life office, located in J-7 at the Rocklin campus, is a resource center dedicated to enhancing the educational experience for all students. The Campus Life program provides pathways for students to become informed, educated leaders and citizens.

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, tennis, water polo and wrestling

Women's Sports—basketball, golf, soccer, softball, swimming, tennis, 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 Association's Nor Cal League. Other members of the Big 8 Conference include American River, Cosumnes River, Diablo Valley, Modesto, Sacramento City, San Joaquin Delta and Santa Rosa. Other football teams competing in the Nor Cal League 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, contact Tim Haenny, Campus Life Coordinator, or visit www.sierracollege.edu/programs/honors.htm (<http://www.sierracollege.edu/programs/honors.htm>).

Associate Degrees and Certificates

Associate of Arts/Associate of Science Degrees

Students planning to graduate with an Associate of Arts (AA) or an Associate of Science (AS) 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;
 - b. California State University General Education Breadth Requirements (CSU GE); or
 - c. Intersegmental General Education Transfer Curriculum (IGETC).

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.

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 State University General Education Breadth Requirements (CSU GE), or the Intersegmental General Education Transfer Curriculum (IGETC).

NOTE: IGETC is the only approved option for the Biology for Transfer, Chemistry for Transfer, and Computer Science for Transfer degrees.

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 18 units. Students must:

1. Earn grades of “C” or better in all required courses.
2. Complete at least 50% of the required coursework at Sierra College. (Units received through Credit by Examination 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 (<http://www.sierracollege.edu/gainfulemployment>).

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 17.5 units. Students must:

1. Earn grades of “C” or better in all required courses.
2. Complete at least 50% of the required coursework at Sierra College. (Units received through Credit by Examination do not count toward this requirement.)

Skills certificates are not recorded on student transcripts.

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, 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 lower-division college coursework posted to the Sierra College transcript is included in this GPA calculation.

Degree and Certificate Petitions

Students desiring an associate degree or certificate must file a petition with a campus Admissions and Records office by the following semester deadlines:

December 2015	October 1, 2015
May or August 2016	March 1, 2016

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 a web-based degree audit and academic advising tool that students may use to review progress toward graduation. The program takes courses from the student 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 for students thinking about changing majors. Degree Works is located in mySierra through the Academic Tools tab.

Associate Degrees

Administration of Justice

- Administration of Justice—Corrections Concentration: AA, AS (p. 29)
- Administration of Justice—Courts Concentration: AA, AS (p. 29)
- Administration of Justice—Law Enforcement Concentration: AA, AS (p. 29)

Agriculture

- Sustainable Agriculture: AS (p. 35)

Applied Art and Design

- Applied Art and Design—Graphic Design Concentration: AA, AS (p. 40)
- Applied Art and Design—Illustration Concentration: AA, AS (p. 40)
- Applied Art and Design—Multimedia Concentration: AA, AS (p. 40)

Art

- Studio Art: AA (p. 47)

Art History

- Art History: AA (p. 51)

Automotive Technology

- Automotive Analysis: AA, AS (p. 59)

Biological Sciences

- Biological Sciences: AS (p. 64)
- Watershed Ecology: AS (p. 64)

Business

- Accounting: AA, AS (p. 72)
- Administrative Professional: AA, AS (p. 72)
- Business Administration: AA, AS (p. 72)
- Business Entrepreneurship: AA, AS (p. 72)
- General Business: AA, AS (p. 72)
- Management: AA, AS (p. 72)
- Marketing: AA, AS (p. 72)
- Real Estate: AA, AS (p. 72)

Chemistry

- Chemistry: AS (p. 80)

Communication Studies

- Communication Studies—General Concentration: AA, AS (p. 83)
- Communication Studies—Graphic Design/Multimedia Concentration: AA, AS (p. 83)
- Communication Studies—Mass Communication Concentration: AA, AS (p. 83)

Computer Information Systems

- Computer Information Systems—Computer Applications Concentration: AA, AS (p. 88)
- Computer Information Systems—Networking Concentration: AA, AS (p. 88)
- Computer Information Systems—Technical Support Concentration: AA, AS (p. 88)
- Virtual Office Professional—Administrative Concentration: AA, AS (p. 88)

Computer Science

- Computer Science—Computer Science Concentration: AA, AS (p. 94)
- Computer Science—Management Information Systems Concentration: AA, AS (p. 94)

Construction and Energy Technology

- Construction Management: AS (p. 98)
- Energy Technology: AS (p. 98)
- Residential Building Construction: AA, AS (p. 98)

Deaf Studies

- Deaf Studies—American Sign Language: AA

Drafting and Engineering Support

- Drafting and Engineering Support—Architectural/Civil Concentration: AA, AS (p. 104)
- Drafting and Engineering Support—Mechanical/Civil Concentration: AA, AS (p. 104)

Drama

- Theater Arts: AA (p. 107)

Earth Science

- Geology: AS (p. 111)

Education

- Liberal Studies—Elementary Education: AA (p. 116)

Engineering

- Engineering: AA, AS (p. 118)

English

- English: AA (p. 121)

Environmental Studies and Sustainability

- Environmental Studies and Sustainability: AS

Fashion

- Fashion Industries: AS (p. 133)

Fire Technology

- Fire Technology: AA, AS (p. 136)

History

- History: AA (p. 150)

Human Development and Family

- Early Childhood Education: AA, AS (p. 153)
- Early Childhood Education—Master Teacher: AA, AS (p. 153)
- Early Childhood Education—Site Supervisor: AA, AS (p. 153)

Humanities

- Humanities—Asian Studies: AA (p. 160)
- Humanities—Diverse Perspectives: AA (p. 160)
- Humanities—General: AA (p. 160)

Lesbian, Gay, Bisexual and Transgender Studies

- Lesbian, Gay, Bisexual and Transgender Studies: AA

Liberal Arts

- Arts and Cultures: AA (p. 166)

Mathematics

- Mathematics: AA, AS (p. 170)

Mechatronics

- Mechatronics Technology: AA, AS

Music

- Music: AA, AS (p. 176)

Natural Science

- Natural Science: AA, AS

Nursing, Registered

- Registered Nursing: AA, AS

Philosophy

- Philosophy: AA

Photography

- Photography: AA, AS

Physical Education

- Physical Education: AA, AS

Physics

- Physics: AS (p. 205)

Psychology

- Psychology: AA, AS (p. 211)

Recreation Management

- Recreation Management: AA, AS

Social Science

- Social and Behavioral Sciences: AA, AS

Welding Technology

- Welding Technology: AA, AS

Women and Gender Studies

- Women's Studies: AA

Associate Degrees for Transfer

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 www.adegreewithaguarantee.com (<http://www.adegreewithaguarantee.com>).

Administration of Justice

- Administration of Justice for Transfer: AS-T

Anthropology

- Anthropology for Transfer: AA-T

Art

- Studio Arts for Transfer: AA-T

Art History

- Art History for Transfer: AA-T

Biological Sciences

- Biology for Transfer: AS-T (p. 64)¹

Business

- Business Administration for Transfer: AS-T

Chemistry

- Chemistry for Transfer: AS-T (p. 80)¹

Communication Studies

- Communication Studies for Transfer: AA-T
- Journalism for Transfer: AA-T

Computer Science

- Computer Science for Transfer: AS-T²

Drama

- Theatre Arts for Transfer: AA-T

Earth Science

- Geology for Transfer: AS-T

Economics

- Economics for Transfer: AA-T

Education

- Elementary Teacher Education for Transfer: AA-T (p. 116)

English

- English for Transfer: AA-T

Geography

- Geography for Transfer: AA-T

History

- History for Transfer: AA-T

Human Development and Family

- Early Childhood Education for Transfer: AS-T

Mathematics

- Mathematics for Transfer: AS-T

Music

- Music for Transfer: AA-T (p. 176)

Nutrition and Food Science

- Nutrition and Dietetics for Transfer: AS-T (p. 186)

Philosophy

- Philosophy for Transfer: AA-T

Physical Education

- Kinesiology for Transfer: AA-T

Physics

- Physics for Transfer: AS-T

Political Science

- Political Science for Transfer: AA-T

Psychology

- Psychology for Transfer: AA-T

Sociology

- Sociology for Transfer: AA-T

Spanish

- Spanish for Transfer: AA-T

¹ The Biology for Transfer (p. 64) and Chemistry for Transfer (p. 80) degrees require completion of the Intersegmental General Education Transfer Curriculum for Science, Technology, Engineering, and Mathematics (IGETC for STEM). CSU GE is not an option for these degrees.

² The Computer Science for Transfer (p. 94) degree requires completion of the Intersegmental General Education Transfer Curriculum (IGETC). CSU GE is not an option for this 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 18 units.

Agriculture

- Sustainable Agriculture (p. 35)

Applied Art and Design

- Applied Art and Design—Graphic Design Concentration (p. 40)
- Applied Art and Design—Illustration Concentration (p. 40)
- Applied Art and Design—Multimedia Concentration (p. 40)

Automotive Technology

- Air Conditioning and Body Electrical (p. 59)
- Alignment and Brake (p. 59)
- Automatic Transmission (p. 59)
- Automotive Engine Machining (p. 59)
- Emission and Driveability Tune-up (p. 59)
- Master Automotive Technician (p. 59)
- Powertrain (p. 59)

Biological Sciences

- Watershed Ecology (p. 64)

Business

- Accounting (p. 72)
- Administrative Professional (p. 72)
- Business Entrepreneurship (p. 72)
- General Business (p. 72)
- Management (p. 72)
- Marketing (p. 72)
- Real Estate (p. 72)

Computer Information Systems

- Computer Information Systems—Computer Applications Concentration
- Computer Information Systems—Networking Concentration (p. 88)
- Computer Information Systems—Technical Support Concentration (p. 88)
- Virtual Office Professional—Administrative Concentration (p. 88)

Computer Science

- Computer Science—Embedded Systems Concentration (p. 94)
- Computer Science—Web Programming Concentration (p. 94)

Construction and Energy Technology

- Energy Technology (p. 98)
- Residential Building Construction (p. 98)

Deaf Studies

- Deaf Studies—American Sign Language (p. 102)

Drafting and Engineering Support

- Drafting and Engineering Support—Architectural/Civil Concentration (p. 104)
- Drafting and Engineering Support—Mechanical/Civil Concentration (p. 104)

Engineering

- Civil Engineering Technology (p. 118)
- General Engineering Technology (p. 118)

Fashion

- Fashion Industries (p. 133)

Fire Technology

- Fire Technology (p. 136)

Human Development and Family

- Early Childhood Education Teacher (p. 153)

Mechatronics

- Mechatronics Technology (p. 174)

Nutrition and Food Science

- Nutrition and Fitness (p. 186)

Photography

- Photography (p. 193)

Recreation Management

- Recreation Specialist (p. 214)

Welding Technology

- Welding (p. 224)

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 17.5 units.

Administration of Justice

- Reserve Peace Officer (p. 29)

Agriculture

- Sustainable Agriculture Business (p. 35)

Applied Art and Design

- Digital Illustration (p. 40)
- Graphic Design (p. 40)
- Video Production and Editing (p. 40)
- Visual Arts and Media (p. 40)
- Web Design (p. 40)

Automotive Technology

- Entry Level Automotive Service and Repair (p. 59)

Business

- Small Business (p. 72)

Computer Information Systems

- Digital Literacy (p. 88)
- Information Assurance and Cyber Defense (p. 88)
- Information Assurance Technician (Level 1) (p. 88)
- Information Assurance Technician (Level 2) (p. 88)

Construction and Energy Technology

- Photovoltaic (p. 98)
- Photovoltaic Advanced (p. 98)

Drafting and Engineering Support

- Architectural Drafting Specialist (p. 104)
- Drafting Essentials (p. 104)
- Mechanical Drafting Specialist (p. 104)

Drama

- Costuming (p. 107)
- Stagecraft (p. 107)

English as a Second Language

- English as a Second Language Academic Preparedness (p. 128)

Fashion

- Fashion Design (p. 133)
- Fashion Merchandising (p. 133)

Geography

- Geographic Information Systems (GIS) (p. 143)

Human Development and Family

- Early Childhood Education Associate Teacher (p. 153)

Mechatronics

- Electro-Mechanical (p. 174)

Photography

- Alternative Processes in Photography (p. 193)
- Color Photography (p. 193)
- Digital Imaging (p. 193)
- Landscape Photography (p. 193)
- Narrative Photography (p. 193)
- Photographic Processes (p. 193)
- Portrait, Fashion and Wedding Photography (p. 193)

Welding Technology

- Gas Metal Arc Welding (p. 224)
- Gas Tungsten Arc Welding (p. 224)
- Metal Fabricator and Designer (p. 224)
- Shielded Metal Arc Welding (p. 224)
- Welding Entrepreneurship (p. 224)

General Education

- Sierra College Associate Degree Requirements 2015-2016 (p. 250)
- California State University General Education Breadth Requirements (CSU GE) 2015-2016 (p. 257)
- Intersegmental General Education Transfer Curriculum (IGETC) 2015-2016 (p. 263)

Sierra College Associate Degree Requirements 2015-2016

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.

I. General Education Breadth Requirements

A. Natural Sciences

(For an AS degree: must complete a laboratory science. Laboratory courses/course combinations are indicated by an asterisk.)

Select 3 units from the following:

Life Sciences

AGRI 0156	Introduction to Plant Science *
AGRI 0198	Food, Society and the Environment
AGRI 0200	Introduction to Animal Science *
ANTH 0001	Physical Anthropology
ANTH 0001 & 0001L	Physical Anthropology and Physical 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 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II *
BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II *
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 *
ESS 0001	The Environment and the Human Impact
ESS 0006	The Sierra Nevada
ESS 0010	Conservation of Natural Resources
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 *
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 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography

ESCI 0015 & 0015L	Introduction to Oceanography and Introduction to Oceanography Laboratory *
ESS 0001	The Environment and the Human Impact
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate
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 & PHYS 0011	Basic Concepts in Physics and Physical Science 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 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 *

B. Social and Behavioral Sciences

Select 3 units from the following:

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 0012	Anthropology of Games and Play
ANTH 0014	Globalization Studies
ANTH 0027	Anthropology of Sex, Gender and Sexuality
COMM 0001	Fundamentals of Public Speaking
COMM 0003	Group Communication
COMM 0005	Communication Experience
COMM 0007	Intercultural Communication

COMM 0008	Interpersonal Communication
COMM 0010	Survey of Communication Studies
COMM 0070	Mass Communication: Media and Society
COMM 0071	Newswriting and Reporting Techniques
COMM 0072	Multimedia Reporting
ESS 0001	The Environment and the Human Impact
GEOG 0003	Geography of California
HDEV 0001	Human Development through the Lifespan
HDEV 0004	Child, Family, and Community
HDEV 0009	Child and Adolescent Development
HDEV 0021	Psychology of Marriage and Family
HDEV 0022	The Family
HDEV 0025	Culture and Diversity in Early Childhood Education
HUM 0003	Introduction to Asian Humanities
NUTF 0010	Principles of Nutrition
NUTF 0014	Nutrition for Physical Performance
PSYC 0100	General Principles of 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 Marriage and Family
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0150	Alcohol, Drugs and Society
PSYC 0160	Psychology and Film
PSYC 0170	Environmental Psychology
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 0020	Introduction to Research Methods
SOC 0024	Introduction to Sociology of Sport
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
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
BUS 0049	Law and Society
ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics
FASH 0015	Clothing and Culture
GEOG 0002	Cultural Geography
GEOG 0003	Geography of California

GEOG 0005	World Regional Geography	AAD 0044	Sketching for Design
HIST 0004A	Western Civilization to 1715	AAD 0060	Graphic Design: Principles and Process
HIST 0004B	Western Civilization since 1715	ARHI 0101	Art Appreciation
HIST 0017A	History of the United States to 1877	ARHI 0110	History of Western Art I: Prehistory through the Middle Ages
HIST 0017B	History of the United States since 1865	ARHI 0120	History of Western Art II: Renaissance through Romanticism
HIST 0018A	The African American Experience in American History to 1877	ARHI 0130	History of Western Art III: Modern through Contemporary
HIST 0018B	The African American Experience in American History since 1877	ARHI 0132	History of Women in Art
HIST 0019A	History of Traditional East Asia	ARHI 0134	History and Aesthetics of Photography
HIST 0019B	History of Modern East Asia	ARHI 0140	History of the Arts of Africa, the Americas, and Oceania
HIST 0020	California History	ARHI 0150	History of Asian Art
HIST 0021	Contemporary United States History	ARHI 0155	History of Islamic Art
HIST 0022	American Military History	ART 0002	Two-Dimensional Design Foundations
HIST 0023	Chicano/Mexican American History	ART 0003	Three-Dimensional Design Foundations
HIST 0024	Russian History - 10th Century to Present	ART 0004A	Drawing I
HIST 0027	Women in American History	ART 0004B	Drawing II
HIST 0050	World History to 1500	ART 0005A	Figure Drawing I
HIST 0051	World History since 1500	ART 0006C	Color Theory
HUM 0009	Introduction to Women, Gender and Religion	ART 0007A	Oil Painting I
LGBT 0001	Introduction to LGBT Studies/Queer Theory	ART 0008A	Watercolor Painting I
POLS 0001	American Government	ART 0009A	Acrylic Painting I
POLS 0002	Comparative Government	ART 0012A	Sculpture I
POLS 0003	International Relations	ART 0017	Ceramic Sculpture/Handbuilding
POLS 0004	Russian and East European Political Systems	ART 0018A	Ceramics I
POLS 0007	Politics of the Developing World - Third World Politics	ART 0018B	Ceramics II
POLS 0008	American Foreign Policy	ART 0019	Figure Sculpture
POLS 0009	Politics of the Middle East	ART 0020	Raku Ceramics
POLS 0012	Terrorism	ART 0022	Creative Design in Metal
POLS 0016	Introduction to Political Theory	ART 0024	Advanced Art Metal Design
POLS 0027	Women and Politics in a Global Society	ART 0032	Introduction to Fiber Arts
PSYC 0170	Environmental Psychology	ART 0033	Art Metal Casting
SOC 0010	Feminism and Social Action	ART 0034	Collage and Assemblage
SOC 0027	Sociology of Gender	ART 0040A	Printmaking I
SSCI 0020	African American Culture and Experience	ART 0041	Introduction to Jewelry and Metalsmithing
SSCI 0025	Mexican American/Latino Culture and Image	COMM 0006	Oral Interpretation of Diverse Literatures
SSCI 0030	Immigration, Community and Culture: The Asian American Experience	DRMA 0010A	Fundamentals of Acting
SSCI 0035	Immigrants and Refugees in America: The European Experience	DRMA 0013	Introduction to Theater
SSCI 0050	Ethnic Images in Film	DRMA 0016A	Costume History
WMST 0001	Introduction to Women's Studies	DRMA 0021	Script Analysis
WMST 0002	Introduction to LGBT Studies/Queer Theory	ENGL 0018	Creative Writing (Non-Fiction)
WMST 0003	Introduction to Women, Gender and Religion	ENGL 0019	Introduction to Creative Writing
WMST 0004	Feminism and Social Action	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

C. Humanities

Select 3 units from the following:

Fine Arts

MUS 0009A	Music Theory III	ENGL 0040	The Filmed Novel
MUS 0009B	Music Theory IV	ENGL 0041	The Documentary Film: Argumentative Discourse
MUS 0010	Music Fundamentals	ENGL 0042	The Documentary Film
MUS 0011	Introduction and History of Jazz	ENGL 0044	Introduction to Children's Literature
MUS 0012A	Survey of Music History and Literature to 1750	ENGL 0045	Introduction to Adolescent Literature
MUS 0012B	Survey of Music History and Literature from 1750 to Present	ENGL 0046A	English Literature
MUS 0013	Introduction to Music: History of Rock and Roll	ENGL 0046B	English Literature
MUS 0039A	Beginning Voice	ENGL 0047A	World Literature
MUS 0039B	Intermediate Voice	ENGL 0047B	World Literature
MUS 0039C	Advanced Voice I	ENGL 0048	Literature of Science Fiction
MUS 0039D	Advanced Voice II	FREN 0001	Elementary French - Level I
MUS 0040A	Beginning Piano I	FREN 0002	Elementary French - Level II
MUS 0040B	Beginning Piano II	FREN 0003	Intermediate French - Level I
MUS 0040C	Intermediate Piano I	FREN 0004	Intermediate French - Level II
MUS 0040D	Intermediate Piano II	GER 0001	Elementary German - Level I
MUS 0046	Jazz Ensemble	GER 0002	Elementary German - Level II
MUS 0047	Vocal Jazz Ensemble	HIST 0004A	Western Civilization to 1715
MUS 0048	Concert Choir	HIST 0004B	Western Civilization since 1715
MUS 0050	Wind Ensemble	HDEV 0044	Introduction to Children's Literature
MUS 0054	Symphonic Band	HUM 0005	Classical Roots of the Contemporary Western World
PHOT 0010	History and Aesthetics of Photography	HUM 0009	Introduction to Women, Gender and Religion
PHOT 0060A	Elementary Photography	HUM 0010	World Religions
PHOT 0065	Documentary Photography	HUM 0015	Introduction to Mythology
Literature and Language			
AAD 0012	Visual Communication	HUM 0017	Introduction to Atheism
COMM 0010	Survey of Communication Studies	HUM 0020	Introduction to the Hebrew Bible
COMM 0012	Visual Communication	HUM 0021	Introduction to the New Testament
COMM 0072	Multimedia Reporting	ITAL 0001	Elementary Italian - Level I
DFST 0001	American Sign Language I	ITAL 0002	Elementary Italian - Level II
DFST 0002	American Sign Language II	ITAL 0003	Intermediate Italian - Level I
DFST 0003	American Sign Language III	JPN 0001	Elementary Japanese - Level I
DFST 0004	American Sign Language IV	JPN 0002	Elementary Japanese - Level II
DRMA 0021	Script Analysis	LGBT 0002	Queer (LGBTIQ) Film History
ENGL 0001B	Critical Thinking and Writing about Literature	PHIL 0002	Introduction to Philosophy: Ethics
ENGL 0016	Introduction to LGBTIQ Literature	PHIL 0004	Introduction to Critical Thinking
ENGL 0024	Introduction to Literary Criticism and Critical Concepts	PHIL 0006	Introduction to Philosophy: Knowledge and Reality
ENGL 0027	Literature by Women	PHIL 0010	Philosophy of Religion
ENGL 0029	Introduction to Drama as Literature	PHIL 0013	Introduction to Asian Philosophy
ENGL 0030A	American Literature - Beginnings through Civil War	PHIL 0015	Introduction to Philosophies of Self and Personhood
ENGL 0030B	American Literature - Civil War to the Present	PHIL 0020	Introduction to Ancient Greek Philosophy
ENGL 0032	Introduction to Poetry	PHIL 0021	History of Modern Philosophy
ENGL 0033	Introduction to Shakespeare (The Drama)	PHIL 0027	Introduction to Philosophy of Women in Western Cultures
ENGL 0034	Introduction to the Novel	PHIL 0030	Introduction to Social and Political Philosophy
ENGL 0035	Introduction to the Short Story	PHIL 0050	Introduction to Philosophy through Literature and Film
ENGL 0037	American Film Masterpieces	PHIL 0060	Introduction to Environmental Ethics
ENGL 0038	International Film Masterpieces	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 0015	Elementary Conversational Spanish 1
SPAN 0016	Elementary Conversational Spanish 2
SPAN 0017	Intermediate Conversational Spanish
SSCI 0050	Ethnic Images in Film
WMST 0003	Introduction to Women, Gender and Religion

D. Language and Rationality

Select 6 units (3 units from Area D1 and 3 units from Area D2) from the following:

1. English Composition

Completion of the following with a grade of C or better:

ENGL 0001A	Introduction to Composition
ENGL 0002	Structure of English
ENGL 0012	Writing in the Workplace

2. Communication and Analytical Thinking

BUS 0085	Introduction to Oral Communication
COMM 0001	Fundamentals of Public Speaking
COMM 0002	Argumentation
COMM 0003	Group Communication
COMM 0005	Communication Experience
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Survey of Communication Studies
CSCI 0010	Introduction to Computing
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0011	Analytical and Critical Thinking in Reading
ENGL 0024	Introduction to Literary Criticism and Critical Concepts
MATH 0000B	Plane Geometry
MATH 0000D	Intermediate Algebra
MATH 0000E	Practical Mathematics
MATH 0008	Trigonometry
MATH 0010	Problem Solving
MATH 0012	College Algebra
MATH 0013	Elementary Statistics
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 0024	Modern Business Mathematics
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
PHIL 0004	Introduction to Critical Thinking
PHIL 0012	Introduction to Symbolic Logic
PSYC 0105	Research Methods in Psychology
PSYC 0142	Introduction to Psychological Statistics
SOC 0015	Introduction to Statistics in Sociology

E. Health Education/Physical Education

Select 3 units from the following:

ADMJ 0060	Defensive Tactics for Law Enforcement
HDEV 0061	Nutrition throughout the Life Cycle
HED 0001	Standard First Aid/Community CPR
HED 0002	Health Education
HED 0010	Health and Aging
HSCI 0002	Emergency Medical Technician
HSCI 0007	Emergency Medical Responder
NRSA 0003	Precertification Nursing Assistant Training
NUTF 0005	Food Preparation for Nutrition and Life Fitness
NUTF 0010	Principles of Nutrition
NUTF 0013	Nutrition throughout the Life Cycle
NUTF 0014	Nutrition for Physical Performance
PDEV 0070	Stress and Well Being
PHED 0003A	Basic Aerobic Training with Fitness Equipment
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment
PHED 0005A	Weight Training
PHED 0005B	Strength Training - Circuit and Power Lifting
PHED 0006	Physical Fitness
PHED 0007	Aerobic Fitness
PHED 0008	Aquacise
PHED 0009	Step Aerobic Training
PHED 0010	Golf
PHED 0011	Badminton
PHED 0013	Cardio Kickboxing
PHED 0014	Tai Chi
PHED 0016	Tennis
PHED 0019	Mat Pilates
PHED 0022	Fitness and Weight Management Boot Camp
PHED 0023	Recreational Basketball
PHED 0026	Volleyball
PHED 0027A	Soccer Level I
PHED 0027B	Soccer Level II
PHED 0029	Flag Football
PHED 0030	Rugby
PHED 0032	ACE Personal Trainer Preparation
PHED 0035	Lifeguard Training
PHED 0036	Fundamental Swimming
PHED 0039	Swimming Conditioning

PHED 0051B	Square Dance
PHED 0051C	Line Dance
PHED 0051D	Modern Ballroom Dance
PHED 0053	Modern Dance
PHED 0054	Jazz Dance
PHED 0055	Fundamentals of Yoga
PHED 0056A	Ballet I
PHED 0056B	Ballet II
PHED 0063	Self-Defense for Personal Safety
PHED 0066	Combative Self Defense
PHED 0068	Introduction to Meditation
PHED 0069	Peaceful Self Defense
PHED 0071	Adapted Group Activities
PHED 0072	Adapted Individualized Exercises
PHED 0073	Adapted Aquatics
PHED 0074	Adapted Aerobic Fitness
PHED 0075	Adapted Walk/Jog
PHED 0080	Multi Self Defense System
PHED 0081	Introduction to Kinesiology
PHED 0083	Physiology of Fitness
PHED 0084	Care and Prevention of Athletic Injuries
PHED 0085	Techniques of Fitness Instruction
PHED 0087	Cross Training
PHED 0088	Introduction to Coaching Team Sports
PHED 0093	Sports Activities
PHED 0200	Fire Academy Physical Training
PSYC 0130	Human Sexuality
PSYC 0150	Alcohol, Drugs and Society
RECM 0070	Backpacking
RECM 0071	Rock Climbing
RECM 0072	Wilderness Survival
SOC 0005	Sociology of Women's Health

F. Multicultural Studies

Select 3 units from the following:

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 0014	Globalization Studies
ANTH 0027	Anthropology of Sex, Gender and Sexuality
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
BUS 0055	International Business Practices
COMM 0007	Intercultural Communication
COMM 0010	Survey of Communication Studies
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 0047A	World Literature
ENGL 0047B	World Literature
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
HDEV 0025	Culture and Diversity in Early Childhood Education
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
HUM 0003	Introduction to Asian Humanities
HUM 0009	Introduction to Women, Gender and Religion
HUM 0010	World Religions
ITAL 0003	Intermediate Italian - Level I
JPN 0001	Elementary Japanese - Level I
JPN 0002	Elementary Japanese - Level II
LGBT 0001	Introduction to LGBT Studies/Queer Theory
LGBT 0002	Queer (LGBTIQ) Film History
MUS 0011	Introduction and History of Jazz
NRSR 0024	Advanced Medical Surgical and Maternal-Newborn Nursing
PHIL 0013	Introduction to Asian Philosophy
PHIL 0015	Introduction to Philosophies of Self and Personhood
PHIL 0027	Introduction to Philosophy of Women in Western Cultures
POLS 0007	Politics of the Developing World - Third World Politics
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
SOC 0010	Feminism and Social Action
SOC 0027	Sociology of Gender
SPAN 0003	Intermediate Spanish - Level I

SPAN 0004	Intermediate Spanish - Level II
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0025	Mexican American/Latino Culture and Image
SSCI 0030	Immigration, Community and Culture: The Asian American Experience
SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film
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

II. Learning Skills

Courses used to fulfill learning skills requirements may also be used to satisfy major and/or general education requirements.

1. Writing

Completion of one of the following courses with grade of "C" or better:

ENGL 0001A	Introduction to Composition
ENGL 0002	Structure of English
ENGL 0012	Writing in the Workplace

2. Reading

Demonstrated proficiency by one of the following:

1. Completion of one of the following courses with grade of "C" or better:

ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0011	Analytical and Critical Thinking in Reading
ENGL 0050	Mastering College Academic Literacy
ENGL 0000N	Integrated Reading and Composition
ESL 0030C	Academic Reading and Writing
ESL 0030R	Advanced Reading and Vocabulary
PHIL 0004	Introduction to Critical Thinking

2. Possession of either a bachelor or higher degree from a U.S. regionally accredited institution.

3. Satisfactory score on examination (no college units granted).

3. Oral Communications

Demonstrated proficiency by one of the following:

1. Completion of one of the following courses with grade of "C" or better:

BUS 0085	Introduction to Oral Communication
BUS 0102	Business Communications
COMM 0001	Fundamentals of Public Speaking
COMM 0002	Argumentation

COMM 0003	Group Communication
COMM 0005	Communication Experience
COMM 0008	Interpersonal Communication
DRMA 0010A	Fundamentals of Acting
DRMA 0010B	Advanced Acting
ESL 0040L	College Communication for Non-Native Speakers
PDEV 0009	Assertiveness Training

2. Written petition certifying acceptable experience and an oral performance to demonstrate proficiency (no college units granted).

4. Mathematics

Demonstrated proficiency by one of the following:

1. Completion of one of the following courses with grade of "C" or better:

MATH 0000B	Plane Geometry
MATH 0000D	Intermediate Algebra
MATH 0000E	Practical Mathematics
MATH 0008	Trigonometry
MATH 0010	Problem Solving
MATH 0012	College Algebra
MATH 0013	Elementary Statistics
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 0024	Modern Business Mathematics
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

2. Completion of one year (or block schedule equivalent) of Algebra II or Integrated Mathematics III or higher level mathematics in high school with grades of "C" or better (no college units granted).

3. Minimum score on ACT of 25 or SAT of 560 (no college units granted).

III. Major

Minimum of 18 units in a group of 18-44 courses described in the catalog. Courses must be completed with grades of "C" or better

IV. Electives

Any additional degree-applicable 0-22 credit courses

Total Degree-Applicable Units Required for the AA or AS Degree:

(At least 12 of the 60 degree-applicable units must be completed at Sierra College. Units received through Credit by Examination do not count toward this requirement. A cumulative grade point average of 2.0 or better in all degree-applicable coursework is required.)

Notes

1. Credit for only one course from English A, N, 50, 50L, or 60 may be applied to the degree.
2. While a course may be listed in multiple areas of general education breadth (Areas A-F), it may only be applied to one area.
3. A course may be applied to a general education breadth requirement (Areas A-F), a learning skills requirement (Areas 1-4), and a major requirement.
4. These AA/AS associate degree requirements do not meet transfer general education requirements.
5. Students pursuing an AA or AS have the option of completing these associate degree requirements, the CSU General Education Breadth requirements, or the IGETC requirements.
6. Students pursuing an AA-T or AS-T must complete the CSU General Education Breadth requirements or the IGETC requirements. (Some majors are restricted to IGETC; consult with a Counselor.)
7. Students may check their degree status using Degree Works; access is through mySierra.
8. See the catalog rights policy for information pertaining to major and general education options.

California State University General Education Breadth Requirements 2015-2016

A. English Language Communication and Critical Thinking

Minimum of 9 semester units with one course each in subareas A1, A2 and A3.

A1. Oral Communication (3 semester units)

BUS 0085	Introduction to Oral Communication
COMM 0001	Fundamentals of Public Speaking
COMM 0002	Argumentation
COMM 0003	Group Communication
COMM 0005	Communication Experience

A2. Written Communication (3 semester units)

ENGL 0001A	Introduction to Composition
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A3. Critical Thinking (3 semester units)

COMM 0002	Argumentation
ENGL 0001B	Critical Thinking and Writing about Literature

ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0011	Analytical and Critical Thinking in Reading
PHIL 0004	Introduction to Critical Thinking
PHIL 0012	Introduction to Symbolic Logic

B. Scientific Inquiry and Quantitative Reasoning

Minimum of 9 semester units with one course each in subareas B1, B2 and B4, plus one corresponding laboratory component required from either area B1 or B2 (laboratory courses and related lecture/laboratory combinations are indicated by an asterisk).

B1. Physical Science (3 semester units)

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 *
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 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography

ESCI 0015 & 0015L	Introduction to Oceanography and Introduction to Oceanography Laboratory *
ESS 0007	Energy, Environment, and Climate
GEOG 0001	Physical Geography
GEOG 0001 & 0001L	Physical Geography and Physical Geography Laboratory *
GEOG 0004	Weather and Climate
MECH 0001	The Science of Electronics
PHYS 0010	Basic Concepts in Physics
PHYS 0010 & PHYS 0011	Basic Concepts in Physics and Physical Science 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 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 *

B2. Life Science (3 semester units)

AGRI 0156	Introduction to Plant Science *
AGRI 0200	Introduction to Animal Science *
ANTH 0001	Physical Anthropology
ANTH 0001 & 0001L	Physical Anthropology and Physical Anthropology Laboratory *
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 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II ^{*,1}
BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II ^{*,1}
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 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 *
PSYC 0140	Introduction to Biopsychology
PSYC 0140 & 0140L	Introduction to Biopsychology and Biopsychology Laboratory *

B3. Laboratory Activity

One of the courses selected from area B1 or B2 must include a related laboratory. Laboratory courses and related lecture/laboratory combinations are indicated by an asterisk.

B4. Mathematics/Quantitative Reasoning (3 semester units)

MATH 0008	Trigonometry
MATH 0010	Problem Solving
MATH 0012	College Algebra
MATH 0013	Elementary Statistics
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 0024	Modern Business Mathematics
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

¹ Students must complete the series for CSU General Education Certification.

C. Arts and Humanities

Minimum of 9 semester units with at least one course each in subareas C1 and C2.

C1. Arts

AAD 0060	Graphic Design: Principles and Process
ARHI 0101	Art Appreciation
ARHI 0110	History of Western Art I: Prehistory through the Middle Ages
ARHI 0120	History of Western Art II: Renaissance through Romanticism
ARHI 0130	History of Western Art III: Modern through Contemporary
ARHI 0132	History of Women in Art

ARHI 0134	History and Aesthetics of Photography	DFST 0001	American Sign Language I
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania	DFST 0002	American Sign Language II
ARHI 0150	History of Asian Art	DFST 0003	American Sign Language III
ARHI 0155	History of Islamic Art	DFST 0004	American Sign Language IV
ART 0002	Two-Dimensional Design Foundations	DFST 0010	Introduction to Deaf Studies
ART 0004A	Drawing I	ENGL 0001B	Critical Thinking and Writing about Literature
ART 0004B	Drawing II	ENGL 0016	Introduction to LGBTIQ Literature
ART 0005A	Figure Drawing I	ENGL 0018	Creative Writing (Non-Fiction)
ART 0006C	Color Theory	ENGL 0019	Introduction to Creative Writing
ART 0007A	Oil Painting I	ENGL 0020	Creative Writing (Poetry)
ART 0008A	Watercolor Painting I	ENGL 0021	Creative Writing (Fiction)
ART 0009A	Acrylic Painting I	ENGL 0024	Introduction to Literary Criticism and Critical Concepts
ART 0012A	Sculpture I	ENGL 0027	Literature by Women
ART 0017	Ceramic Sculpture/Handbuilding	ENGL 0029	Introduction to Drama as Literature
ART 0019	Figure Sculpture	ENGL 0030A	American Literature - Beginnings through Civil War
ART 0034	Collage and Assemblage	ENGL 0030B	American Literature - Civil War to the Present
ART 0040A	Printmaking I	ENGL 0032	Introduction to Poetry
COMM 0006	Oral Interpretation of Diverse Literatures	ENGL 0033	Introduction to Shakespeare (The Drama)
DRMA 0010A	Fundamentals of Acting	ENGL 0034	Introduction to the Novel
DRMA 0013	Introduction to Theater	ENGL 0035	Introduction to the Short Story
DRMA 0016A	Costume History	ENGL 0037	American Film Masterpieces
ENGL 0037	American Film Masterpieces	ENGL 0038	International Film Masterpieces
ENGL 0038	International Film Masterpieces	ENGL 0040	The Filmed Novel
ENGL 0040	The Filmed Novel	ENGL 0041	The Documentary Film: Argumentative Discourse
ENGL 0042	The Documentary Film	ENGL 0044	Introduction to Children's Literature
FASH 0012	Fashion History	ENGL 0045	Introduction to Adolescent Literature
HUM 0001	Introduction to Humanities I	ENGL 0046A	English Literature
HUM 0002	Introduction to Humanities II	ENGL 0046B	English Literature
HUM 0003	Introduction to Asian Humanities	ENGL 0047A	World Literature
MUS 0002	Music Appreciation	ENGL 0047B	World Literature
MUS 0006A	Music Theory I	ENGL 0048	Literature of Science Fiction
MUS 0009A	Music Theory III	FREN 0001	Elementary French - Level I
MUS 0010	Music Fundamentals	FREN 0002	Elementary French - Level II
MUS 0011	Introduction and History of Jazz	FREN 0003	Intermediate French - Level I
MUS 0012A	Survey of Music History and Literature to 1750	FREN 0004	Intermediate French - Level II
MUS 0012B	Survey of Music History and Literature from 1750 to Present	GER 0001	Elementary German - Level I
MUS 0013	Introduction to Music: History of Rock and Roll	GER 0002	Elementary German - Level II
MUS 0046	Jazz Ensemble	HDEV 0044	Introduction to Children's Literature
MUS 0047	Vocal Jazz Ensemble	HIST 0004A	Western Civilization to 1715
MUS 0048	Concert Choir	HIST 0004B	Western Civilization since 1715
MUS 0050	Wind Ensemble	HIST 0017A	History of the United States to 1877
MUS 0054	Symphonic Band	HIST 0017B	History of the United States since 1865
PHOT 0010	History and Aesthetics of Photography	HIST 0018A	The African American Experience in American History to 1877
PHOT 0060A	Elementary Photography	HIST 0018B	The African American Experience in American History since 1877
PHOT 0065	Documentary Photography	HIST 0019A	History of Traditional East Asia
SSCI 0050	Ethnic Images in Film	HIST 0019B	History of Modern East Asia
C2. Humanities			
AAD 0012	Visual Communication		
COMM 0012	Visual Communication		

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 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
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
ITAL 0003	Intermediate Italian - Level I
JPN 0001	Elementary Japanese - Level I
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 0015	Introduction to Philosophies of Self and Personhood
PHIL 0020	Introduction to 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 0050	Introduction to Philosophy through Literature and Film
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 0015	Elementary Conversational Spanish 1
SPAN 0016	Elementary Conversational Spanish 2
SPAN 0017	Intermediate Conversational Spanish
SSCI 0025	Mexican American/Latino Culture and Image

WMST 0003 Introduction to Women, Gender and Religion

D. Social Sciences

Minimum of 9 semester units with courses from at least two disciplinary perspectives (subareas D0 - D9).

DO. Sociology and Criminology

ADMJ 0050	Introduction to Administration of Justice
HDEV 0022	The Family
PSYC 0103	Social Psychology
SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0004	The Family
SOC 0009	Introduction to Crime, Deviance, and Social Control
SOC 0010	Feminism and Social Action
SOC 0020	Introduction to Research Methods
SOC 0024	Introduction to Sociology of Sport
SOC 0027	Sociology of Gender
SSCI 0010	Introduction to Ethnic Studies
WMST 0004	Feminism and Social Action

D1. Anthropology and Archeology

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 0012	Anthropology of Games and Play
ANTH 0027	Anthropology of Sex, Gender and Sexuality

D2. Economics

AGRI 0215	Introduction to Agricultural Business and Economics
ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics

D3. Ethnic Studies

ANTH 0004	Native Peoples of North America
ANTH 0007	Native Peoples of California
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
HUM 0003	Introduction to Asian Humanities
SOC 0003	Race, Ethnicity and Inequality
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0025	Mexican American/Latino Culture and Image
SSCI 0030	Immigration, Community and Culture: The Asian American Experience

SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film

D4. Gender Studies

ANTH 0027	Anthropology of Sex, Gender and Sexuality
HIST 0027	Women in American History
HUM 0009	Introduction to Women, Gender and Religion
LGBT 0001	Introduction to LGBT Studies/Queer Theory
POLS 0027	Women and Politics in a Global Society
SOC 0005	Sociology of Women's Health
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

D5. Geography

GEOG 0002	Cultural Geography
GEOG 0003	Geography of California
GEOG 0005	World Regional Geography

D6. 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
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 0027	Women in American History
HIST 0050	World History to 1500
HIST 0051	World History since 1500
POLS 0002	Comparative Government
POLS 0003	International Relations
POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics

D7. Interdisciplinary Social or Behavioral Science

AGRI 0198	Food, Society and the Environment
ANTH 0004	Native Peoples of North America
ANTH 0014	Globalization Studies
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication

COMM 0010	Survey of Communication Studies
COMM 0070	Mass Communication: Media and Society
ESS 0001	The Environment and the Human Impact
FASH 0015	Clothing and Culture
GEOG 0002	Cultural Geography
HDEV 0001	Human Development through the Lifespan
HDEV 0004	Child, Family, and Community
HDEV 0009	Child and Adolescent Development
HDEV 0021	Psychology of Marriage and Family
HDEV 0022	The Family
NUTF 0010	Principles of Nutrition
PSYC 0105	Research Methods in Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0110	Psychology of Marriage and Family
SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0004	The Family
SOC 0020	Introduction to Research Methods
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0050	Ethnic Images in Film

D8. Political Science, Government and Legal Institutions

ADMJ 0050	Introduction to Administration of Justice
BUS 0049	Law and Society
GEOG 0002	Cultural Geography
HIST 0004A	Western Civilization to 1715
HIST 0004B	Western Civilization since 1715
POLS 0001	American Government
POLS 0002	Comparative Government
POLS 0003	International Relations
POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics
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

D9. Psychology

HDEV 0009	Child and Adolescent Development
HDEV 0021	Psychology of Marriage and Family
PSYC 0100	General Principles of 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 Marriage and Family
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality

PSYC 0150	Alcohol, Drugs and Society
PSYC 0160	Psychology and Film
PSYC 0170	Environmental Psychology

E. Lifelong Learning and Self-Development

Minimum of 3 semester units (of which only one semester unit may be physical activity).

BIOL 0006	Human Physiology
BIOL 0055	General Human Anatomy and Physiology
ESS 0006	The Sierra Nevada
ESS 0010	Conservation of Natural Resources
HDEV 0001	Human Development through the Lifespan
HDEV 0009	Child and Adolescent Development
HDEV 0021	Psychology of Marriage and Family
HDEV 0022	The Family
HDEV 0061	Nutrition throughout the Life Cycle
HED 0002	Health Education
HED 0010	Health and Aging
NUTF 0010	Principles of Nutrition
NUTF 0013	Nutrition throughout the Life Cycle
PDEV 0006	Career Planning
PDEV 0070	Stress and Well Being
PHED 0032	ACE Personal Trainer Preparation
PHED 0083	Physiology of Fitness
PHED 0084	Care and Prevention of Athletic Injuries
PSYC 0100	General Principles of Psychology
PSYC 0104	Developmental Psychology
PSYC 0106	Psychology of Adjustment
PSYC 0108	Psychology of Death and Dying
PSYC 0110	Psychology of Marriage and Family
PSYC 0127	Psychology of Women
PSYC 0130	Human Sexuality
PSYC 0150	Alcohol, Drugs and Society
SOC 0004	The Family
SOC 0005	Sociology of Women's Health

Physical Activity (1 semester unit maximum)

PHED 0003A	Basic Aerobic Training with Fitness Equipment
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment
PHED 0005A	Weight Training
PHED 0005B	Strength Training - Circuit and Power Lifting
PHED 0006	Physical Fitness
PHED 0007	Aerobic Fitness
PHED 0008	Aquacise
PHED 0009	Step Aerobic Training
PHED 0010	Golf
PHED 0011	Badminton
PHED 0013	Cardio Kickboxing
PHED 0014	Tai Chi

PHED 0016	Tennis
PHED 0019	Mat Pilates
PHED 0022	Fitness and Weight Management Boot Camp
PHED 0023	Recreational Basketball
PHED 0026	Volleyball
PHED 0027A	Soccer Level I
PHED 0027B	Soccer Level II
PHED 0029	Flag Football
PHED 0030	Rugby
PHED 0036	Fundamental Swimming
PHED 0039	Swimming Conditioning
PHED 0051B	Square Dance
PHED 0051C	Line Dance
PHED 0051D	Modern Ballroom Dance
PHED 0053	Modern Dance
PHED 0054	Jazz Dance
PHED 0055	Fundamentals of Yoga
PHED 0056A	Ballet I
PHED 0056B	Ballet II
PHED 0063	Self-Defense for Personal Safety
PHED 0066	Combative Self Defense
PHED 0069	Peaceful Self Defense
PHED 0071	Adapted Group Activities
PHED 0072	Adapted Individualized Exercises
PHED 0073	Adapted Aquatics
PHED 0074	Adapted Aerobic Fitness
PHED 0075	Adapted Walk/Jog
PHED 0080	Multi Self Defense System
PHED 0085	Techniques of Fitness Instruction
PHED 0087	Cross Training
PHED 0093	Sports Activities
PHED 0200	Fire Academy Physical Training
RECM 0070	Backpacking
RECM 0071	Rock Climbing

MINIMUM LOWER-DIVISION 39

GENERAL EDUCATION UNITS

Additional upper-division general education units completed at the California State University campus 9

Minimum general education units to 48 obtain Bachelor's degree

CSU Graduation Requirement in United States History, Constitution and American Ideals

Minimum of 6 semester units¹ from one of the following course combinations, A-I. (This CSU graduation requirement may be met before or after transfer to a CSU campus and is not required for CSU GE certification.)

A. HIST 0017A and HIST 0017B

B. HIST 0017A and HIST 0020

C. HIST 0017A and POLS 0001

D. HIST 0017B and HIST 0027

E. HIST 0017B and POLS 0001

F. HIST 0018A and POLS 0001

G. HIST 0018B and POLS 0001

H. HIST 0020 and HIST 0027

I. HIST 0027 and POLS 0001

¹ Courses may be used to fulfill both the CSU General Education Breadth requirements and the CSU graduation requirement in U.S. History, Constitution and American Ideals.

Notes

- To qualify as an upper-division transfer, a student must:
 - complete 60 or more CSU transferable semester units with a grade point average of at least 2.0 (2.4 if a nonresident) in all transferable college units attempted; and
 - complete at least 30 of those units from general education courses in areas A through D, including courses in each of the following areas with grades of "C" or better: A1, A2, A3, and B4.
- While a course may be listed in multiple areas, it may only be applied to one area. (The CSU graduation requirement in U.S. History, Constitution and American Ideals is not part of CSU GE Breadth; therefore, courses may be applied to both of these requirements.)
- Students with Advanced Placement (AP), College-Level Examination Program (CLEP), and/or International Baccalaureate (IB) examinations should check with a counselor to verify application of the examinations to the appropriate general education areas.
- Courses on this CSU General Education Breadth list are approved annually for the academic year, which begins with the Fall 2015 semester and remains valid through Summer 2016. If a course is taken before it is approved or after it is removed, it cannot be used to satisfy CSU GE Breadth. See a counselor or check assist.org (<http://www.assist.org>) for up-to-date as well as historical course approval information.
- Students pursuing majors with extensive lower-division unit requirements, such as Engineering, are advised to focus on completing the pre-major requirements while meeting minimum admission requirements. Consult with a counselor to determine the most appropriate transfer path.
- A maximum of 70 semester units may be transferred to a CSU campus. Coursework completed above the 70 units may be used to meet CSU general education, major, and/or graduation requirements even if the units will not count toward the baccalaureate degree.
- CSU Sacramento requires a 2.0 GPA in general education courses (except as noted in #1 above), and a foreign language for graduation.
- The CSU Sacramento English 20 graduation requirement can be satisfied by completing Sierra's ENGL 0001B or ENGL 0001C. Either of these courses may "double count" to meet both the English 20 graduation requirement and the CSU General Education Breadth requirement for area A3. Consult with a counselor and/or see the CSUS catalog for graduation requirements.

Intersegmental General Education Transfer Curriculum 2015-2016

1. English Communication

(CSU: 3 courses, 9 semester/12–15 quarter units, one course each from areas 1A, 1B, and 1C;

UC: 2 courses, 6 semester/8–10 quarter units, one course each from areas 1A and 1B)

1A. English Composition (3 semester/4-5 quarter units)

ENGL 0001A	Introduction to Composition
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1B. Critical Thinking-English Composition (3 semester/4-5 quarter units)

ENGL 0001B	Critical Thinking and Writing about Literature
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ENGL 0001C	Critical Thinking and Writing across the Curriculum
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1C. Oral Communication (3 semester/4-5 quarter units) (UC transfer students do not have to fulfill this area; CSU transfers must)

COMM 0001	Fundamentals of Public Speaking ¹
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COMM 0002	Argumentation
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COMM 0003	Group Communication
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COMM 0005	Communication Experience ¹
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¹ Indicates that course credit is limited. Review the Transferable Courses to UC System (p. 284) page in the catalog or consult the counseling office for additional information.

2. Mathematical Concepts and Quantitative Reasoning

(1 course, 3 semester/4–5 quarter units)

MATH 0012	College Algebra ¹
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MATH 0013	Elementary Statistics ¹
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MATH 0015	Discrete Mathematics ¹
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MATH 0016A	Calculus for Social and Life Sciences ¹
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MATH 0016B	Calculus for Social and Life Sciences ¹
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MATH 0018	The Nature of Mathematics ¹
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MATH 0029	Pre-Calculus Mathematics ¹
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MATH 0030	Analytical Geometry and Calculus I ¹
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MATH 0031	Analytical Geometry and Calculus II ¹
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MATH 0032	Analytical Geometry and Calculus III
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MATH 0033	Differential Equations and Linear Algebra
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MATH 0042	Business Calculus ¹
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PSYC 0142	Introduction to Psychological Statistics ¹
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SOC 0015	Introduction to Statistics in Sociology
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¹ Indicates that course credit is limited. Review the Transferable Courses to UC System (p. 284) page in the catalog or consult the counseling office for additional information.

3. Arts and Humanities

(3 courses, 9 semester/12–15 quarter units. At least one course in the Arts and one course in the Humanities.)

3A. Arts

ARHI 0101	Art Appreciation
ARHI 0110	History of Western Art I: Prehistory through the Middle Ages
ARHI 0120	History of Western Art II: Renaissance through Romanticism
ARHI 0130	History of Western Art III: Modern through Contemporary
ARHI 0132	History of Women in Art
ARHI 0134	History and Aesthetics of Photography ²
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	Oral Interpretation of Diverse Literatures
DRMA 0013	Introduction to Theater
DRMA 0016A	Costume History
ENGL 0042	The Documentary Film
MUS 0002	Music Appreciation
MUS 0006A	Music Theory I
MUS 0009A	Music Theory III
MUS 0010	Music Fundamentals ¹
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 and Aesthetics of Photography ²
SSCI 0050	Ethnic Images in Film

3B. Humanities

AAD 0012	Visual Communication ²
COMM 0012	Visual Communication ²
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 ¹
ENGL 0038	International Film Masterpieces ¹
ENGL 0040	The Filmed Novel
ENGL 0041	The Documentary Film: Argumentative Discourse
ENGL 0046A	English Literature
ENGL 0046B	English Literature
ENGL 0047A	World Literature
ENGL 0047B	World Literature
ENGL 0048	Literature of Science Fiction
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 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 ²
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 0003	Intermediate Italian - Level I
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 0015	Introduction to Philosophies of Self and Personhood

PHIL 0020	Introduction to 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 0050	Introduction to Philosophy through Literature and Film
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science
SSCI 0025	Mexican American/Latino Culture and Image
SPAN 0003	Intermediate Spanish - Level I
SPAN 0004	Intermediate Spanish - Level II
WMST 0003	Introduction to Women, Gender and Religion ²

¹ Indicates that course credit is limited. Review the Transferable Courses to UC System (p. 284) page in the catalog or consult the counseling office for additional information.

² Indicates that course is cross-listed in two departments and can be credited only once.

4. Social and Behavioral Sciences

(3 courses, 9 semester/12–15 quarter units. Courses from at least two academic disciplines, areas 4A - 4J)

4A. Anthropology and Archaeology

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 0027	Anthropology of Sex, Gender and Sexuality

4B. Economics

AGRI 0215	Introduction to Agricultural Business and Economics
ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics

4C. Ethnic Studies

ANTH 0004	Native Peoples of North America
ANTH 0007	Native Peoples of California
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
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0025	Mexican American/Latino Culture and Image
SSCI 0030	Immigration, Community and Culture: The Asian American Experience

SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film
SOC 0003	Race, Ethnicity and Inequality

4D. Gender Studies

ANTH 0027	Anthropology of Sex, Gender and Sexuality
HUM 0009	Introduction to Women, Gender and Religion ²
LGBT 0001	Introduction to LGBT Studies/Queer Theory ²
POLS 0027	Women and Politics in a Global Society
SOC 0005	Sociology of Women's Health
SOC 0010	Feminism and Social Action ²
SOC 0027	Sociology of Gender
WMST 0001	Introduction to Women's Studies
WMST 0002	Introduction to LGBT Studies/Queer Theory ²
WMST 0003	Introduction to Women, Gender and Religion ²
WMST 0004	Feminism and Social Action ²

4E. Geography

GEOG 0002	Cultural Geography
GEOG 0003	Geography of California
GEOG 0005	World Regional Geography

4F. 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
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 0027	Women in American History
HIST 0050	World History to 1500
HIST 0051	World History since 1500

4G. Interdisciplinary, Social and Behavioral Sciences

AGRI 0198	Food, Society and the Environment
ANTH 0004	Native Peoples of North America
ANTH 0014	Globalization Studies
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Survey of Communication Studies
COMM 0070	Mass Communication: Media and Society
ESS 0001	The Environment and the Human Impact

HDEV 0001	Human Development through the Lifespan ¹
HDEV 0004	Child, Family, and Community
HDEV 0009	Child and Adolescent Development ¹
HDEV 0021	Psychology of Marriage and Family ²
HDEV 0022	The Family ²
PSYC 0110	Psychology of Marriage and Family ²
SSCI 0013	Dialogues in American Culture
SSCI 0050	Ethnic Images in Film
SOC 0004	The Family ²
SOC 0020	Introduction to Research Methods

4H. Political Science, Government and Legal Institutions

BUS 0049	Law and Society
POLS 0001	American Government
POLS 0002	Comparative Government
POLS 0003	International Relations
POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics
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

4I. Psychology

HDEV 0009	Child and Adolescent Development ¹
PSYC 0100	General Principles of 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 0127	Psychology of Women
PSYC 0160	Psychology and Film
PSYC 0170	Environmental Psychology

4J. Sociology and Criminology

ADMJ 0050	Introduction to Administration of Justice
SOC 0001	Introduction to Sociology
SOC 0002	Social Problems
SOC 0003	Race, Ethnicity and Inequality
SOC 0010	Feminism and Social Action ²
SOC 0020	Introduction to Research Methods
SOC 0027	Sociology of Gender
WMST 0004	Feminism and Social Action ²

¹ Indicates that course credit is limited. Review the Transferable Courses to UC System (p. 284) page in the catalog or consult the counseling office for additional information.

² Indicates that course is cross-listed in two departments and can be credited only once.

5. Physical and Biological Sciences

(At least 2 courses, 7-9 semester/9-12 quarter units. A minimum of one Physical Science course and one Biological Science course; one must include a corresponding laboratory; laboratory courses and lecture/laboratory combinations are indicated by an asterisk)

5A. Physical 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 ^{*,1}
CHEM 0001B	General Chemistry II ^{*,1}
CHEM 0002A	Introduction to Chemistry I ^{*,1}
CHEM 0002B	Introduction to Chemistry II ^{*,1}
CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2 ^{*,1}
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 ²
ESCI 0010	Introduction to Earth Science
ESCI 0010 & 0010L	Introduction to Earth Science and Introduction to Earth Science Laboratory *
ESCI 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography
ESCI 0015 & 0015L	Introduction to Oceanography and Introduction to Oceanography Laboratory *
ESS 0007	Energy, Environment, and Climate ²
GEOG 0001	Physical Geography
GEOG 0001 & 0001L	Physical Geography and Physical Geography Laboratory *
GEOG 0004	Weather and Climate

PHYS 0010	Basic Concepts in Physics ¹
PHYS 0010 & PHYS 0011	Basic Concepts in Physics and Physical Science Laboratory ^{*,1}
PHYS 0105	General Physics I ¹
PHYS 0105 & 0105L	General Physics I and General Physics I Laboratory ^{*,1}
PHYS 0110	General Physics II ¹
PHYS 0110 & 0110L	General Physics II and General Physics II Laboratory ^{*,1}
PHYS 0205	Principles of Physics: Mechanics ¹
PHYS 0205 & 0205L	Principles of Physics: Mechanics and Principles of Physics Laboratory: Mechanics ^{*,1}
PHYS 0210	Principles of Physics: Electricity and Magnetism ¹
PHYS 0210 & 0210L	Principles of Physics: Electricity and Magnetism and Principles of Physics Laboratory: Electricity and Magnetism ^{*,1}
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics ¹
PHYS 0215 & 0215L	Principles of Physics: Heat, Waves and Modern Physics and Principles of Physics Laboratory: Heat, Waves and Modern Physics ^{*,1}

5B. Biological Science

AGRI 0156	Introduction to Plant Science ^{*,2}
AGRI 0200	Introduction to Animal Science [*]
ANTH 0001	Physical Anthropology
ANTH 0001 & 0001L	Physical Anthropology and Physical Anthropology Laboratory [*]
ANTH 0010	Introduction to Forensic Anthropology
BIOL 0001	General Biology [*]
BIOL 0002	Botany ^{*,1}
BIOL 0003	General Zoology ^{*,1}
BIOL 0004	Microbiology ^{*,1}
BIOL 0005	Human Anatomy ^{*,1}
BIOL 0006	Human Physiology ^{*,1}
BIOL 0010	Introduction to Biology ¹
BIOL 0011	Concepts of Biology ^{*,1}
BIOL 0014	Natural History, Ecology and Conservation [*]
BIOL 0015	Marine Biology [*]
BIOL 0021	Introduction to Plant Science ^{*,2}
BIOL 0030	Introduction to Ornithology
BIOL 0033	Introduction to Zoology ^{*,1}
BIOL 0035	Introduction to Entomology
BIOL 0055	General Human Anatomy and Physiology ^{*,1}
BIOL 0056	Biology: A Human Perspective ¹
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory ^{*,1}
PSYC 0140	Introduction to Biopsychology
PSYC 0140 & 0140L	Introduction to Biopsychology and Biopsychology Laboratory [*]

5C. Laboratory Activity

One of the courses selected from area 5A or 5B must include a related laboratory. Laboratory courses and related lecture/laboratory combinations are indicated by an asterisk.

¹ Indicates that course credit is limited. Review the Transferable Courses to UC System (p. 284) page in the catalog or consult the counseling office for additional information.

² Indicates that course is cross-listed in two departments and can be credited only once.

6. Language Other Than English

(University of California requirement; not required of California State University transfers. UC transfers may fulfill this requirement by completing 6A, 6B, 6C, or 6D below)

6A. Completion of one of the following courses:

DFST 0001	American Sign Language I
DFST 0002	American Sign Language II
DFST 0003	American Sign Language III
DFST 0004	American Sign Language IV
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
ITAL 0003	Intermediate Italian - Level I
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

6B. Completion of two years of the same foreign language in high school with grades of "C" or better.

6C. 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.

6D. 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.

Notes

- Students should consult with counselors to determine the most appropriate general education patterns for their intended majors and transfer institutions.
- Courses listed in multiple areas will not be certified in more than one area except for courses in Language Other Than English.

3. Courses taken as preparation for a major will also satisfy the corresponding portion of the IGETC requirements.
4. Each course used to fulfill IGETC requirements must be completed with a minimum grade of "C" or better.
5. Advanced placement (AP) exams can be used to satisfy all areas of IGETC except for the Critical Thinking-English Composition and Oral Communication requirements. IGETC policy is to accept a score of 3 or higher to clear one course.
6. International Baccalaureate (IB) exams can be used to satisfy all areas of IGETC except for the Area 1 requirements. IGETC policy is to accept a score of 5 or higher to clear one course.

CSU Graduation Requirement In U.S. History, Constitution and American Ideals

(Not part of IGETC; this CSU graduation requirement may be met before or after transfer to a CSU campus.)

Select 6 units¹ (6 semester units/2 courses) from the following:

- A. HIST 0017A and HIST 0017B
- B. HIST 0017A and HIST 0020
- C. HIST 0017A and POLS 0001
- D. HIST 0017B and HIST 0027
- E. HIST 0017B and POLS 0001
- F. HIST 0018A and POLS 0001
- G. HIST 0018B and POLS 0001
- H. HIST 0020 and HIST 0027
- I. HIST 0027 and POLS 0001

¹ Courses may be used to fulfill both the IGETC requirements and the CSU graduation requirement in U.S. History, Constitution and American Ideals.

IGETC for Science, Technology, Engineering, or Mathematics (STEM)

IGETC for STEM is only an option for students earning AS-T degrees in Biology for Transfer (p. 64) and/or Chemistry for Transfer (p. 80). 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 academic disciplines.

The following courses must be completed *after* transfer:

- One remaining lower-division general education course in Area 3;¹
- One remaining lower-division general education course in Area 4;¹ and
- One course in Area 6 for UC-bound students who have not satisfied the requirement through proficiency.¹

¹ 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.

Course Information

- Understanding Course Descriptions (p. 268)
- Courses Designated as Repeatable (p. 299)
- Limitations on Active Participatory Courses (p. 270)
- Course Identification Numbering System (C-ID) (p. 272)
- Transferable Courses to CSU System (p. 274)
- Transferable Courses to UC System (p. 284)

Understanding Course Descriptions

The courses described in this catalog may not be offered every term or every year. Check the schedule of classes 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 (not graded, zero unit)

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.

A list of approved C-ID courses (p. 272) as of September 2015 is available in this catalog. To see the most up-to-date list, go to www.assist.org (<http://www.assist.org>).

Independent Study Courses

0028 Independent Study

Units: 1-3

Transfer Status: Transferable to CSU, UC-with limitation¹

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 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. Submit the approved Independent Study Project form to a campus Admissions and Records office.

Internship Courses

0095 Internship

Units: 0.5-4

Transfer Status: Transferable to CSU-with limitation²

Hours to Complete Course: 60 hours per unit for non-paid work; 75 hours per unit for paid 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 review of the course by the enrolling UC campus.

² Total of all internship units transferred to CSU may not exceed 16.

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

AAD Graphic Design

AAD 0060	Graphic Design: Principles and Process
AAD 0061	Graphic Design II: Digital Design and Production
AAD 0062	Graphic Computer Illustration
AAD 0070	Introduction to Digital Design

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 Video Production
AAD 0080	Introduction to Video Editing

AAD Web Design

AAD 0085	Introduction to Web Design
AAD 0086	Intermediate Web Design
AAD 0090	Interactivity and Animation for the Web

Art Families

ART Alternate Materials

ART 0032	Introduction to Fiber Arts
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 0005A	Figure Drawing I
ART 0005B	Figure Drawing II
ART 0052	Portrait Drawing and Painting

ART Metal

ART 0022	Creative Design in Metal
ART 0024	Advanced Art Metal Design
ART 0033	Art Metal Casting
ART 0041	Introduction to Jewelry and Metalsmithing

ART Painting

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 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

Drama Families

DRMA Costuming

DRMA 0016B	Costume Construction
DRMA 0017	Stage Makeup
DRMA Performance Cast	
DRMA 0023A	Rehearsal and Performance - Cast I
DRMA 0023B	Rehearsal and Performance - Cast II
DRMA 0023C	Rehearsal and Performance - Cast III
DRMA 0023D	Rehearsal and Performance - Cast IV
DRMA Production Crew	
DRMA 0022A	Production Crew I
DRMA 0022B	Production Crew II
DRMA 0022C	Production Crew III
DRMA 0022D	Production Crew IV
DRMA Stagecraft	
DRMA 0014	Stagecraft
DRMA 0019A	Stage Properties
DRMA 0019B	Scenic Painting

Music Families

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 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

Physical Education Families

PHED Adaptive

PHED 0071	Adapted Group Activities
PHED 0072	Adapted Individualized Exercises
PHED 0073	Adapted Aquatics
PHED 0074	Adapted Aerobic Fitness
PHED 0075	Adapted Walk/Jog

PHED Aerobic Fitness - Resistance

PHED 0006	Physical Fitness
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PHED 0007	Aerobic Fitness
PHED 0008	Aquacise
PHED 0009	Step Aerobic Training
PHED 0013	Cardio Kickboxing
PHED 0019	Mat Pilates

PHED Aerobic Training - Weights

PHED 0003A	Basic Aerobic Training with Fitness Equipment
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment

PHED Ballet

PHED 0056A	Ballet I
PHED 0056B	Ballet II

PHED Basketball

PHED 0023	Recreational Basketball
PHED 0093	Sports Activities

PHED Country Dance

PHED 0051B	Square Dance
PHED 0051C	Line Dance

PHED Self Defense

PHED 0063	Self-Defense for Personal Safety
PHED 0066	Combative Self Defense
PHED 0069	Peaceful Self Defense
PHED 0080	Multi Self Defense System

PHED Soccer

PHED 0027A	Soccer Level I
PHED 0027B	Soccer Level II

PHED Swimming

PHED 0036	Fundamental Swimming
PHED 0039	Swimming Conditioning

PHED Water Safety

PHED 0033	Recertification for Lifeguard Training and Professional Rescue CPR
PHED 0035	Lifeguard Training

PHED Weight Training

PHED 0005A	Weight Training
PHED 0005B	Strength Training - Circuit and Power Lifting
PHED 0087	Cross Training

PHED Wellness

PHED 0022	Fitness and Weight Management Boot Camp
PHED 0068	Introduction to Meditation

Photography Families

PHOT Alternative Processes

PHOT 0090G	Pinhole Photography Workshop
PHOT 0092	Alternative Processes

PHOT Black and White Photography

PHOT 0060A	Elementary Photography
PHOT 0060B	Intermediate Photography

PHOT Commercial Photography

PHOT 0030	Photographing Works of Art (also known as AAD 0030)	AJ 110	ADMJ 0050
PHOT 0070A	Advanced Photography	AJ 120	ADMJ 0055
PHOT 0070B	Advanced Photography	AJ 122	ADMJ 0052
PHOT 0090P	Workshop: Portraiture	AJ 124	ADMJ 0056
PHOT Digital Imaging		AJ 140	ADMJ 0054
PHOT 0075	Introduction to Digital Imaging (also known as AAD 0075)	AJ 160	ADMJ 0058
PHOT 0076	Advanced Projects in Digital Imaging (also known as AAD 0076)	AJ 200	ADMJ 0062
PHOT Digital Photography		AJ 220	ADMJ 0057
PHOT 0078	Digital Photography	ANTH 115L	ANTH 0001L
PHOT 0080	Color Photography	ANTH 120	ANTH 0002
PHOT Documentary Photography		ANTH 130	ANTH 0006
PHOT 0065	Documentary Photography	ANTH 150	ANTH 0005
PHOT 0085	Photojournalism	ARTH 110	ARHI 0110
PHOT 0090M	Autobiographical Photography	ARTH 120	ARHI 0120 and ARHI 0130
PHOT Field Workshops: Documentary		ARTH 130	ARHI 0150
PHOT 0090H	Documentary Field Workshop	ARTH 140	ARHI 0140
PHOT 0090J	Photojournalism Field Workshop	ARTS 100	ART 0002
PHOT Field Workshops: Outdoor		ARTS 101	ART 0003
PHOT 0090B	Field Workshop: Cityscape	ARTS 110	ART 0004A
PHOT 0090I	Night Photography Field Workshop	ARTS 200	ART 0005A
PHOT 0090L	Field Workshop: Landscape	ARTS 205	ART 0004B
PHOT 0090N	Field Workshop: Color Nature Photography	ARTS 210	ART 0008A
PHOT 0090T	Travel Photography Field Workshop	ARTS 250	AAD 0070
PHOT Laboratory Experience		ARTS 270	ART 0006C
PHOT 0061A	Photography Laboratory Experience: Elementary	ARTS 282	ART 0032
PHOT 0061B	Photography Laboratory Experience: Intermediate	BIOL 110B	BIOL 0005
PHOT 0071A	Photography Studio Experience	BIOL 110B	BIOL 0007A and BIOL 0007B
PHOT 0071B	Photography Studio Experience: Advanced	BIOL 120B	BIOL 0006
		BUS 110	BUS 0020
		BUS 115	BUS 0102
		BUS 125	BUS 0048
		BUS 140	CIS 0062
		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 150	CHEM 0012A
		CHEM 160S	CHEM 0012A and CHEM 0012B
		COMM 110	COMM 0001
		COMM 120	COMM 0002
		COMM 130	COMM 0008
		COMM 140	COMM 0003
		COMM 150	COMM 0007
		COMM 170	COMM 0006
		COMM 180	COMM 0010
		COMP 122	CSCI 0012
		COMP 132	CSCI 0013

Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) 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 0001 and BUS 0002
ACCT 120	BUS 0003

COMP 142	CSCI 0039	JOUR 100	COMM 0070
COMP 152	CSCI 0026	JOUR 110	COMM 0071
ECE 120	HDEV 0002	JOUR 120	COMM 0072
ECE 130	HDEV 0005	JOUR 130	COMM 0078
ECE 200	HDEV 0003	JOUR 131	COMM 0079
ECE 210	HDEV 0010	JOUR 170	COMM 0012
ECE 220	HDEV 0007	JOUR 170	AAD 0012
ECE 230	HDEV 0025	KIN 100	PHED 0081
ECON 201	ECON 0001B	KIN 101	HED 0001
ECON 202	ECON 0001A	MATH 140	MATH 0042
EDUC 200	EDU 0010	MATH 220	MATH 0031
ENGL 100	ENGL 0001A	MATH 230	MATH 0032
ENGL 105	ENGL 0001C	MATH 910S	MATH 0033
ENGL 120	ENGL 0001B	MUS 100	MUS 0002
ENGL 130	ENGL 0030A	MUS 120	MUS 0006A
ENGL 135	ENGL 0030B	MUS 125	MUS 0003A
ENGL 140	ENGL 0047A	MUS 130	MUS 0006B
ENGL 145	ENGL 0047B	MUS 135	MUS 0003B
ENGL 160	ENGL 0046A	MUS 140	MUS 0009A
ENGL 165	ENGL 0046B	MUS 145	MUS 0004A
ENGL 180	ENGL 0044	MUS 150	MUS 0009B
ENGL 200	ENGL 0019	MUS 155	MUS 0004B
GEOG 110	GEOG 0001	MUS 160	MUS 0051
GEOG 111	GEOG 0001L	PHIL 100	PHIL 0006
GEOG 115	GEOG 0001 and GEOG 0001L	PHIL 120	PHIL 0002
GEOG 120	GEOG 0002	PHIL 130	PHIL 0020
GEOG 125	GEOG 0005	PHIL 140	PHIL 0021
GEOG 130	GEOG 0004	PHIL 210	PHIL 0012
GEOG 140	GEOG 0003	PHYS 105	PHYS 0105 and PHYS 0105L
GEOG 155	GEOG 0090	PHYS 110	PHYS 0110 and PHYS 0110L
GEOG 160	GEOG 0011	PHYS 205	PHYS 0205 and PHYS 0205L
GEOG 160	GEOG 0012	PHYS 210	PHYS 0210 and PHYS 0210L
GEOG 160	GEOG 0014	PHYS 215	PHYS 0215 and PHYS 0215L
GEOG 160	GEOG 0016	POLS 110	POLS 0001
GEOL 100	ESCI 0001	POLS 120	POLS 0016
GEOL 100L	ESCI 0001L	POLS 130	POLS 0002
GEOL 110	ESCI 0003	POLS 140	POLS 0003
GEOL 110L	ESCI 0003L	PSY 110	PSYC 0100
GEOL 120	ESCI 0010	PSY 115	PSYC 0106
GEOL 120L	ESCI 0010L	PSY 120	PSYC 0107
GEOL 200	ESCI 0002	PSY 130	PSYC 0130
HIST 130	HIST 0017A	PSY 150	PSYC 0140
HIST 140	HIST 0017B	PSY 170	PSYC 0103
HIST 150	HIST 0050	PSY 180	PSYC 0104
HIST 160	HIST 0051	PSY 205B	PSYC 0105
HIST 170	HIST 004A	SOCI 110	SOC 0001
HIST 180	HIST 0004B	SOCI 115	SOC 0002
ITIS 110	CIS 0026	SOCI 120	SOC 0020
ITIS 120	CIS 0062	SOCI 125	PSYC 0142
ITIS 150	CIS 0065	SOCI 125	SOC 0015
ITIS 155	CIS 0142	SOCI 130	HDEV 0022
ITIS 160	CIS 0147	SOCI 130	SOC 0004

SOCI 140	SOC 0027
SOCI 150	SOC 0003
SOCI 160	SOC 0009
SPAN 100	SPAN 0001
SPAN 110	SPAN 0002
SPAN 200	SPAN 0003
SPAN 210	SPAN 0004
THTR 111	DRMA 0013
THTR 114	DRMA 0021
THTR 151	DRMA 0010A
THTR 152	DRMA 0010B
THTR 171	DRMA 0014
THTR 173	DRMA 0015
THTR 175	DRMA 0017
THTR 191	DRMA 0023A
THTR 191	DRMA 0023B
THTR 191	DRMA 0023C
THTR 191	DRMA 0023D
THTR 192	DRMA 0022A
THTR 192	DRMA 0022B
THTR 192	DRMA 0022C
THTR 192	DRMA 0022D

Transferable Courses to CSU System California State University Baccalaureate Level Course List 2015-2016

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
ADMJ 0072	Illegal Drugs - Recognition and Influence
ADMJ 0073	Writing for Criminal Justice
ADMJ 0074	Computer Use 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 0088	Computer Forensics Fundamentals
ADMJ 0089	Fraud Examination
ADMJ 0095	Internship in Administration of Justice ¹

Agriculture

AGRI 0028	Independent Study
AGRI 0095	Internship in Agriculture ¹
AGRI 0156	Introduction to Plant Science
AGRI 0159	Integrated Pest Management
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 0215	Introduction to Agricultural Business and Economics
AGRI 0221	Introduction to Soil Science

Anthropology

ANTH 0001	Physical Anthropology
ANTH 0001L	Physical 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 0012	Anthropology of Games and Play
ANTH 0014	Globalization Studies
ANTH 0027	Anthropology of Sex, Gender and Sexuality
ANTH 0028	Independent Study

Applied Art and Design

AAD 0012	Visual Communication
AAD 0020	Portfolio Development and Presentation
AAD 0028	Independent Study
AAD 0030	Photographing Works of Art
AAD 0044	Sketching for Design
AAD 0050	Introduction to the Macintosh Computer
AAD 0052	Publication Design I
AAD 0053	Publication Design II
AAD 0054	Typography
AAD 0055	Illustration
AAD 0060	Graphic Design: Principles and Process
AAD 0061	Graphic Design II: Digital Design and Production
AAD 0062	Graphic Computer Illustration
AAD 0066	Business Practices for the Applied Arts
AAD 0070	Introduction to Digital Design
AAD 0071	Introduction to Digital Painting
AAD 0073	Digital Art Studio: Concepts and Practices
AAD 0075	Introduction to Digital Imaging
AAD 0076	Advanced Projects in Digital Imaging
AAD 0079	Introduction to Video Production
AAD 0080	Introduction to Video Editing
AAD 0083	Introduction to Three-Dimensional Modeling
AAD 0085	Introduction to Web Design

AAD 0086	Intermediate Web Design
AAD 0090	Interactivity and Animation for the Web
AAD 0095	Internship in Applied Art and Design ¹

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	Creative Design in Metal
ART 0024	Advanced Art Metal Design
ART 0028	Independent Study
ART 0032	Introduction to Fiber Arts
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
ART 0071	Introduction to Digital Painting
ART 0073	Digital Art Studio: Concepts and Practices
ART 0095	Internship in Art ¹

Art History

ARHI 0101	Art Appreciation
ARHI 0110	History of Western Art I: Prehistory through the Middle Ages
ARHI 0120	History of Western Art II: Renaissance through Romanticism
ARHI 0130	History of Western Art III: Modern through Contemporary
ARHI 0132	History of Women in Art
ARHI 0134	History and Aesthetics of Photography
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania
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 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 0116	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 0160	Intercollegiate Tennis (M)
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 Sand Volleyball (W)
ATHL 0199	Intercollegiate Sports Conditioning

Automotive Technology

AUTO 0028	Independent Study
AUTO 0059	Introduction to Automotive Service
AUTO 0062A	Engine Fuel System Principles and Controls
AUTO 0064	Hydraulic and Brake Systems
AUTO 0066A	Engine Reconditioning
AUTO 0066B	Engine Reconditioning
AUTO 0069	Automotive Air Conditioning and Heating
AUTO 0071A	Automotive Electrical Systems
AUTO 0075	Automotive Electronics
AUTO 0079	Suspension and Wheel Alignment

AUTO 0080	Automotive Powertrains Manual Transmissions
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 0006	Human Physiology
BIOL 0007A	Human Anatomy I
BIOL 0007B	Human Anatomy II
BIOL 0008A	Microbiology I
BIOL 0008B	Microbiology II
BIOL 0010	Introduction to Biology
BIOL 0011	Concepts of Biology
BIOL 0013	Field Methods in Ecology
BIOL 0014	Natural History, Ecology and Conservation
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
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 Mountain
BIOL 0016P	Death Valley and Desert Ecosystems
BIOL 0016Q	Ecology of Mid-Western North America
BIOL 0016R	Canyon Lands of the Southwest
BIOL 0016T	Coastal Habitats of Northern California
BIOL 0016U	Coastal Habitats of Central California
BIOL 0016V	Deserts of Southern California
BIOL 0016W	Biology/Ecology of the Klamath and the Southern Cascade
BIOL 0016Y	Ecology of Selected Wilderness Ecosystems
BIOL 0016Z	Ecology of the American River
BIOL 0021	Introduction to Plant Science
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
Business	
BUS 0001	Financial Accounting I
BUS 0002	Financial Accounting II
BUS 0003	Managerial Accounting
BUS 0009	Federal Income Taxation of Individuals
BUS 0019	Investments
BUS 0020	Introduction to Business
BUS 0028	Independent Study
BUS 0040	Real Estate Principles
BUS 0041	Real Estate Practice
BUS 0047	Legal Aspects of Real Estate
BUS 0048	Business Law
BUS 0049	Law and Society
BUS 0055	International Business Practices
BUS 0085	Introduction to Oral Communication
BUS 0095	Internship in Business ¹
BUS 0100	Management Concepts and Applications
BUS 0101	Personal Money Management
BUS 0102	Business Communications
BUS 0103	Human Resource Management
BUS 0115	Introduction to Banking
BUS 0116	Customer Service Skills
BUS 0120	Introduction to Marketing
BUS 0121	Advertising
BUS 0122	Marketing in the Digital Age
BUS 0123	Retailing
BUS 0124	Selling Dynamics
BUS 0140	Small Business Management
BUS 0150	Business Capstone
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 0028	Independent Study
CHEM 0095	Internship in Chemistry ¹
Communication Studies	

COMM 0001	Fundamentals of Public Speaking
COMM 0002	Argumentation
COMM 0003	Group Communication
COMM 0005	Communication Experience
COMM 0006	Oral Interpretation of Diverse Literatures
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Survey of Communication Studies
COMM 0012	Visual Communication
COMM 0028	Independent Study
COMM 0031A	Introduction to Video Production
COMM 0070	Mass Communication: Media and Society
COMM 0071	Newswriting and Reporting Techniques
COMM 0072	Multimedia Reporting
COMM 0078	Media Practicum: Writing
COMM 0079	Media Practicum: Publishing
COMM 0095	Internship in Communication Studies ¹

Computer Information Systems

CIS 0026	Information and Communication Technology Essentials
CIS 0028	Independent Study
CIS 0030	Computer Literacy for College Success
CIS 0050	Applying Computer Software
CIS 0062	Business Information Systems
CIS 0065	Computer Network Fundamentals
CIS 0067	Foundations for Creating Web Pages
CIS 0070	Word Processing-Beyond the Basics
CIS 0080	Spreadsheets in a Business Environment
CIS 0088	Computer Forensics Fundamentals
CIS 0090	Database Management
CIS 0095	Internship in Computer Information Systems ¹
CIS 0100	Software for Dynamic Presentations
CIS 0120	Creating Business Graphics with Microsoft Publisher
CIS 0141	Installing, Configuring and Administering a Client OS
CIS 0142	Systems and Network Administration
CIS 0147	Introduction to Information Systems Security
CIS 0148	Virtualization Concepts and Technologies
CIS 0151	Information Storage and Management
CIS 0152	Introduction to Cybersecurity: Ethical Hacking

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 0021	The Game Development Process
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 0055	ASP.NET Programming
CSCI 0059P	Web Programming with PHP
CSCI 0062	Web Programming I
CSCI 0063	Web Programming II
CSCI 0066	Object-Oriented Programming Using C++
CSCI 0076A	Game Programming
CSCI 0079	Mobile Device Programming
CSCI 0095	Internship in Computer Science ¹

Construction and Energy Technology

CET 0005	Introduction to the Built Environment
CET 0007	Materials of Construction
CET 0020	Foundations and Framing
CET 0022	Introduction to Energy Efficiency Construction
CET 0024	Fundamentals of Construction Documents and Estimating
CET 0026	Residential House Wiring and Codes
CET 0028	Independent Study
CET 0034	Plumbing Installation and Design
CET 0040	Beginning Photovoltaic Systems
CET 0042	Intermediate Photovoltaic Systems
CET 0044	Advanced Photovoltaic Systems
CET 0095	Internship in Construction and Energy Technology 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

Drafting and Engineering Support

DES 0001	Technical Drafting I
DES 0002	Technical Drafting II
DES 0005	Computer-Aided Drafting IA
DES 0006	Computer-Aided Drafting IB
DES 0010	Industrial and Civil Applications of Computer-Aided Design
DES 0011	Three-Dimensional Modeling
DES 0012	Geometric Dimensioning and Tolerancing
DES 0020	Architectural Drawing I
DES 0021	Architectural Drawing II
DES 0022	Architectural Drawing III-BIM (Building Information Modeling)
DES 0028	Independent Study

DES 0040	Managing the Computer-Aided Design (CAD) Environment
DES 0095	Internship in Drafting and Engineering Support ¹

Drama

DRMA 0010A	Fundamentals of Acting
DRMA 0010B	Advanced Acting
DRMA 0011	Stage Movement
DRMA 0013	Introduction to Theater
DRMA 0014	Stagecraft
DRMA 0015	Stage Lighting
DRMA 0016A	Costume History
DRMA 0016B	Costume Construction
DRMA 0017	Stage Makeup
DRMA 0019A	Stage Properties
DRMA 0019B	Scenic Painting
DRMA 0020	Play, Performance, and Perception
DRMA 0021	Script Analysis
DRMA 0022A	Production Crew I
DRMA 0022B	Production Crew II
DRMA 0022C	Production Crew III
DRMA 0022D	Production Crew IV
DRMA 0023A	Rehearsal and Performance - Cast I
DRMA 0023B	Rehearsal and Performance - Cast II
DRMA 0023C	Rehearsal and Performance - Cast III
DRMA 0023D	Rehearsal and Performance - Cast IV
DRMA 0028	Independent Study
DRMA 0095	Internship in Drama 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 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESCI 0016G	Field Paleontology and Ancient Environments
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 0055F	Weekend Field Geology

ESCI 0056F	Field Geology of Western North America
ESCI 0095	Internship in Earth Science ¹
ESCI 0301	Geology, Oceanography and Meteorology of Costa Rica

Economics

ECON 0001A	Principles of Macroeconomics
ECON 0001B	Principles of Microeconomics
ECON 0028	Independent Study

Education

EDU 0007	Tutoring Elementary Students in Reading
EDU 0010	Introduction to Elementary Education with Field Experience
EDU 0028	Independent Study
EDU 0095	Internship in Education ¹

Engineering

ENGR 0010	Engineering Survey Measurements
ENGR 0017	Introduction to Circuit Theory
ENGR 0017L	Circuit Theory Laboratory
ENGR 0022A	Engineering Drawing and CAD
ENGR 0022B	Descriptive Geometry and Solid Modeling
ENGR 0028	Independent Study
ENGR 0035	Statics
ENGR 0037	Manufacturing Processes
ENGR 0045	Materials Science
ENGR 0095	Internship in Engineering ¹
ENGR 0150	Introduction to the Engineering Profession

English

ENGL 0001A	Introduction to Composition
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0002	Structure of English
ENGL 0007	Tutoring Elementary Students in Reading
ENGL 0011	Analytical and Critical Thinking in Reading
ENGL 0012	Writing in the Workplace
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 0022	Creative Publication
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 0041	The Documentary Film: Argumentative Discourse
ENGL 0042	The Documentary Film
ENGL 0044	Introduction to Children's Literature
ENGL 0045	Introduction to Adolescent 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 0025G	Academic Grammar and Editing
ESL 0025L	Academic Listening and Speaking
ESL 0030C	Academic Reading and Writing
ESL 0030R	Advanced Reading and Vocabulary
ESL 0030W	Advanced Writing
ESL 0040L	College Communication for Non-Native Speakers

Environmental Studies and Sustainability

ESS 0001	The Environment and the Human Impact
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate
ESS 0010	Conservation of Natural Resources
ESS 0013	Environmental Regulations
ESS 0028	Independent Study
ESS 0095	Internship in Environmental Studies and Sustainability ¹

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 0014	Visual Merchandising
FASH 0015	Clothing and Culture
FASH 0028	Independent Study
FASH 0095	Internship in Fashion ¹

Fire Technology

Maximum 30 units of FIRE courses excluding FIRE 0095	
FIRE 0001	Fire Protection Organization
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 0095	Internship in Fire Technology ¹
FIRE 0150	Command 1A-Structure Fire Operations for the Company Officer
FIRE 0151	Fire Command 1B-Incident Management for Company Officers
FIRE 0152	Command 1C - I-Zone Fire Fighting for Company Officers
FIRE 0154	Fire Investigation 1A - Fire Cause, Origin and Determination
FIRE 0155	Fire Investigation 1B - Techniques of Fire Investigation
FIRE 0157	Management and Supervision for Company Officers
FIRE 0158	Prevention 1-Fire Prevention for the Company Officer
FIRE 0165	Training Instructor 1A
FIRE 0166	Training Instructor 1B
FIRE 0167	Training Instructor 1C
FIRE 0170	Hazardous Materials - Operational Level

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 0011	Urban Geography of San Francisco
GEOG 0012	Historical Geography of Northern California Communities
GEOG 0014	Field Geography of Yosemite and the Eastern Sierra
GEOG 0015	Field Geography of Northern California
GEOG 0016	Field Geography
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 Arc GIS
GEOG 0091B	Intermediate Arc GIS
GEOG 0093	Advanced GIS

GEOG 0094	Geospatial Analysis	HDEV 0023	Dynamics of Parenthood
GEOG 0095	Internship in Geography ¹	HDEV 0025	Culture and Diversity in Early Childhood Education
German		HDEV 0028	Independent Study
GER 0001	Elementary German - Level I	HDEV 0029	Storytelling and Puppetry
GER 0002	Elementary German - Level II	HDEV 0030	Creative Process in Children
GER 0028	Independent Study	HDEV 0038	Adult Supervision: Mentoring in ECE Settings
Health Education		HDEV 0040	Administration and Supervision of Early Childhood Programs
HED 0001	Standard First Aid/Community CPR	HDEV 0041	Advanced Administration of ECE Programs
HED 0002	Health Education	HDEV 0043	Music and Movement for Young Children
HED 0010	Health and Aging	HDEV 0044	Introduction to Children's Literature
Health Sciences		HDEV 0046	Language and Literacy
HSCI 0003	Medical Terminology	HDEV 0047	Math and Science in Early Childhood Education
History		HDEV 0061	Nutrition throughout the Life Cycle
HIST 0004A	Western Civilization to 1715	HDEV 0095	Internship in Human Development and Family ¹
HIST 0004B	Western Civilization since 1715	Humanities	
HIST 0017A	History of the United States to 1877	HUM 0001	Introduction to Humanities I
HIST 0017B	History of the United States since 1865	HUM 0002	Introduction to Humanities II
HIST 0018A	The African American Experience in American History to 1877	HUM 0003	Introduction to Asian Humanities
HIST 0018B	The African American Experience in American History since 1877	HUM 0005	Classical Roots of the Contemporary Western World
HIST 0019A	History of Traditional East Asia	HUM 0009	Introduction to Women, Gender and Religion
HIST 0019B	History of Modern East Asia	HUM 0010	World Religions
HIST 0020	California History	HUM 0015	Introduction to Mythology
HIST 0021	Contemporary United States History	HUM 0017	Introduction to Atheism
HIST 0022	American Military History	HUM 0020	Introduction to the Hebrew Bible
HIST 0023	Chicano/Mexican American History	HUM 0021	Introduction to the New Testament
HIST 0024	Russian History - 10th Century to Present	HUM 0028	Independent Study
HIST 0027	Women in American History	HUM 0030	Studying and Learning Abroad
HIST 0028	Independent Study	HUM 0095	Internship in Humanities ¹
HIST 0050	World History to 1500	Interdisciplinary	
HIST 0051	World History since 1500	INT 0010	Museum Methods
HIST 0095	Internship in History ¹	Italian	
Human Development and Family		ITAL 0001	Elementary Italian - Level I
HDEV 0001	Human Development through the Lifespan	ITAL 0002	Elementary Italian - Level II
HDEV 0002	Principles and Practices of Early Childhood Education	ITAL 0003	Intermediate Italian - Level I
HDEV 0003	Observation, Documentation and Assessment in ECE	Japanese	
HDEV 0004	Child, Family, and Community	JPN 0001	Elementary Japanese - Level I
HDEV 0005	Introduction to Curriculum	JPN 0002	Elementary Japanese - Level II
HDEV 0007	Health, Safety, and Nutrition	JPN 0028	Independent Study
HDEV 0009	Child and Adolescent Development	Lesbian, Gay, Bisexual and Transgender Studies	
HDEV 0010	Practicum/Field Experience in Early Childhood Education	LGBT 0001	Introduction to LGBT Studies/Queer Theory
HDEV 0011	Infant and Toddler Development	LGBT 0002	Queer (LGBTIQ) Film History
HDEV 0012	Infant/Toddler Care and Education	LGBT 0028	Independent Study
HDEV 0013	School Age Child	LGBT 0095	Internship in LGBT Studies ¹
HDEV 0014	Programs for School Age Children	Library Science	
HDEV 0019	Exceptional Development: Inclusion of Special Needs Children	LIBS 0028	Independent Study
HDEV 0021	Psychology of Marriage and Family	LIBS 0095	Internship in Library Science ¹
HDEV 0022	The Family		

Mathematics

MATH 0008	Trigonometry
MATH 0010	Problem Solving
MATH 0012	College Algebra
MATH 0013	Elementary Statistics
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 0024	Modern Business Mathematics
MATH 0028	Independent Study
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

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	Personal Computer Configuration and Repair
MECH 0028	Independent Study
MECH 0044	Mechatronic Processes and Materials
MECH 0054	Mechatronics System
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 0025	Introduction to Music Business
MUS 0028	Independent Study
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 0095	Internship in Registered Nursing ¹

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
NUTF 0014	Nutrition for Physical Performance
NUTF 0028	Independent Study
NUTF 0095	Internship in Nutrition and Food Science ¹

Personal Development

PDEV 0001	College 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	PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment
Philosophy		PHED 0005A	Weight Training
PHIL 0002	Introduction to Philosophy: Ethics	PHED 0005B	Strength Training - Circuit and Power Lifting
PHIL 0004	Introduction to Critical Thinking	PHED 0006	Physical Fitness
PHIL 0006	Introduction to Philosophy: Knowledge and Reality	PHED 0007	Aerobic Fitness
PHIL 0010	Philosophy of Religion	PHED 0008	Aquacise
PHIL 0012	Introduction to Symbolic Logic	PHED 0009	Step Aerobic Training
PHIL 0013	Introduction to Asian Philosophy	PHED 0010	Golf
PHIL 0015	Introduction to Philosophies of Self and Personhood	PHED 0011	Badminton
PHIL 0020	Introduction to Ancient Greek Philosophy	PHED 0013	Cardio Kickboxing
PHIL 0021	History of Modern Philosophy	PHED 0014	Tai Chi
PHIL 0027	Introduction to Philosophy of Women in Western Cultures	PHED 0016	Tennis
PHIL 0028	Independent Study	PHED 0019	Mat Pilates
PHIL 0030	Introduction to Social and Political Philosophy	PHED 0022	Fitness and Weight Management Boot Camp
PHIL 0050	Introduction to Philosophy through Literature and Film	PHED 0023	Recreational Basketball
PHIL 0060	Introduction to Environmental Ethics	PHED 0026	Volleyball
PHIL 0065	Introduction to the Philosophy of Science	PHED 0027A	Soccer Level I
Photography		PHED 0027B	Soccer Level II
PHOT 0010	History and Aesthetics of Photography	PHED 0028	Independent Study
PHOT 0028	Independent Study	PHED 0029	Flag Football
PHOT 0030	Photographing Works of Art	PHED 0030	Rugby
PHOT 0060A	Elementary Photography	PHED 0032	ACE Personal Trainer Preparation
PHOT 0060B	Intermediate Photography	PHED 0035	Lifeguard Training
PHOT 0065	Documentary Photography	PHED 0036	Fundamental Swimming
PHOT 0070A	Advanced Photography	PHED 0039	Swimming Conditioning
PHOT 0070B	Advanced Photography	PHED 0051B	Square Dance
PHOT 0075	Introduction to Digital Imaging	PHED 0051C	Line Dance
PHOT 0076	Advanced Projects in Digital Imaging	PHED 0051D	Modern Ballroom Dance
PHOT 0078	Digital Photography	PHED 0053	Modern Dance
PHOT 0080	Color Photography	PHED 0054	Jazz Dance
PHOT 0085	Photojournalism	PHED 0055	Fundamentals of Yoga
PHOT 0088	Business Practices for Photographers	PHED 0056A	Ballet I
PHOT 0090B	Field Workshop: Cityscape	PHED 0056B	Ballet II
PHOT 0090G	Pinhole Photography Workshop	PHED 0063	Self-Defense for Personal Safety
PHOT 0090H	Documentary Field Workshop	PHED 0066	Combative Self Defense
PHOT 0090I	Night Photography Field Workshop	PHED 0068	Introduction to Meditation
PHOT 0090J	Photojournalism Field Workshop	PHED 0069	Peaceful Self Defense
PHOT 0090L	Field Workshop: Landscape	PHED 0071	Adapted Group Activities
PHOT 0090M	Autobiographical Photography	PHED 0072	Adapted Individualized Exercises
PHOT 0090N	Field Workshop: Color Nature Photography	PHED 0073	Adapted Aquatics
PHOT 0090P	Workshop: Portraiture	PHED 0074	Adapted Aerobic Fitness
PHOT 0090T	Travel Photography Field Workshop	PHED 0075	Adapted Walk/Jog
PHOT 0092	Alternative Processes	PHED 0080	Multi Self Defense System
PHOT 0095	Internship in Photography ¹	PHED 0081	Introduction to Kinesiology
Physical Education		PHED 0082	Sports Officiating
PHED 0003A	Basic Aerobic Training with Fitness Equipment	PHED 0083	Physiology of Fitness
		PHED 0084	Care and Prevention of Athletic Injuries
		PHED 0085	Techniques of Fitness Instruction
		PHED 0086	Psychology of Sport
		PHED 0087	Cross Training

PHED 0088	Introduction to Coaching Team Sports
PHED 0089A	Theory of Baseball
PHED 0089B	Theory of Basketball
PHED 0089C	Theory of Softball
PHED 0089F	Theory of Football
PHED 0089G	Theory of Volleyball
PHED 0089H	Theory of Soccer
PHED 0093	Sports Activities
PHED 0200	Fire Academy Physical Training

Physics

PHYS 0010	Basic Concepts in Physics
PHYS 0011	Physical Science 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 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 0001	American Government
POLS 0002	Comparative Government
POLS 0003	International Relations
POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics
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
POLS 0028	Independent Study

Psychology

PSYC 0028	Independent Study
PSYC 0100	General Principles of 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 Marriage 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
PSYC 0150	Alcohol, Drugs and Society
PSYC 0160	Psychology and Film
PSYC 0170	Environmental 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 0050	Avalanche Safety I
RECM 0051	Avalanche Safety II
RECM 0070	Backpacking
RECM 0071	Rock Climbing
RECM 0072	Wilderness Survival
RECM 0095	Internship in Recreation Management ¹

Skill Development

SKDV 0001	Techniques of Tutoring
SKDV 0010	How to be a Successful Online Student
SKDV 0028	Independent Study

Social Science

SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0025	Mexican American/Latino Culture and Image
SSCI 0028	Independent Study
SSCI 0030	Immigration, Community and Culture: The Asian American Experience
SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film
SSCI 0300F	Italian Life, Culture and Politics
SSCI 0300G	Oaxacan Life and Culture

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
SOC 0020	Introduction to Research Methods
SOC 0024	Introduction to Sociology of Sport
SOC 0027	Sociology of Gender

SOC 0028	Independent Study
SOC 0095	Internship in Sociology ¹
SOC 0301	Achieving Equity in Higher Ed: California Community Colleges

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 0015	Elementary Conversational Spanish 1
SPAN 0016	Elementary Conversational Spanish 2
SPAN 0017	Intermediate Conversational Spanish
SPAN 0028	Independent Study

Welding Technology

WELD 0010	Exploring Metals/Introduction to Gas Welding
WELD 0015	Introductory Welding for Metalworking
WELD 0028	Independent Study
WELD 0030	Advanced Shielded Metal Arc Welding of Structural Plate and Pipe
WELD 0050	Gas Tungsten Arc Welding (TIG) - Career Path
WELD 0060	Welding Metallurgy
WELD 0082	Pipe Welding Certification - Uphill
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
WMST 0003	Introduction to Women, Gender and Religion
WMST 0004	Feminism and Social Action

¹ Total of all Internship courses (any course numbered 0095 and PDEV 0094) to be credited may not exceed 16 units.

Transferable Courses to UC System

University of California Transfer Course Agreement 2015-2016

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 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	Physical Anthropology
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ANTH 0001L	Physical 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	Globalization Studies
ANTH 0027	Anthropology of Sex, Gender and Sexuality
ANTH 0028	Independent Study ¹

Applied Art and Design

AAD 0012	Visual Communication
AAD 0028	Independent Study ¹
AAD 0062	Graphic Computer Illustration
AAD 0070	Introduction to Digital Design
AAD 0073	Digital Art Studio: Concepts and Practices
AAD 0075	Introduction to Digital Imaging

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 0032	Introduction to Fiber Arts
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	History of Western Art I: Prehistory through the Middle Ages
ARHI 0120	History of Western Art II: Renaissance through Romanticism
ARHI 0130	History of Western Art III: Modern through Contemporary

ARHI 0132	History of Women in Art
ARHI 0134	History and Aesthetics of Photography
ARHI 0140	History of the Arts of Africa, the Americas, and Oceania
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 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 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 0160	Intercollegiate Tennis (M) 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 Sand Volleyball (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 ³
BIOL 0006	Human Physiology ³
BIOL 0007A & BIOL 0007B	Human Anatomy I and Human Anatomy II ³
BIOL 0008A & BIOL 0008B	Microbiology I and Microbiology II ³
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 ³
BIOL 0056	Biology: A Human Perspective ³
BIOL 0056L	Biology: A Human Perspective Laboratory ³

Business

BUS 0001	Financial Accounting I
BUS 0002	Financial Accounting II
BUS 0003	Managerial Accounting
BUS 0020	Introduction to Business
BUS 0048	Business Law
BUS 0049	Law and Society

Chemistry

CHEM 0001A	General Chemistry I ⁴
CHEM 0001B	General Chemistry II ⁴
CHEM 0002A	Introduction to Chemistry I ⁴
CHEM 0002B	Introduction to Chemistry II ⁴
CHEM 0003A	General Chemistry I - Part 1 ⁴
CHEM 0003B	General Chemistry I - Part 2 ⁴
CHEM 0005	Chemistry - Quantitative Analysis
CHEM 0012A	Organic Chemistry I
CHEM 0012B	Organic Chemistry II
CHEM 0028	Independent Study ¹

Communication Studies

COMM 0001	Fundamentals of Public Speaking (maximum credit, 1 course from COMM 0001 and COMM 0005)
COMM 0002	Argumentation
COMM 0003	Group Communication
COMM 0005	Communication Experience (maximum credit, 1 course from COMM 0001 and COMM 0005)
COMM 0006	Oral Interpretation of Diverse Literatures
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
COMM 0010	Survey of Communication Studies
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 0021	The Game Development Process
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

Drafting and Engineering Support

DES 0011	Three-Dimensional Modeling
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Drama

DRMA 0010A	Fundamentals of Acting
DRMA 0010B	Advanced Acting
DRMA 0011	Stage Movement
DRMA 0013	Introduction to Theater
DRMA 0014	Stagecraft
DRMA 0015	Stage Lighting
DRMA 0016A	Costume History
DRMA 0016B	Costume Construction
DRMA 0017	Stage Makeup
DRMA 0019A	Stage Properties
DRMA 0019B	Scenic Painting
DRMA 0020	Play, Performance, and Perception
DRMA 0021	Script Analysis
DRMA 0022A	Production Crew I
DRMA 0022B	Production Crew II
DRMA 0022C	Production Crew III
DRMA 0022D	Production Crew IV
DRMA 0023A	Rehearsal and Performance - Cast I
DRMA 0023B	Rehearsal and Performance - Cast II
DRMA 0023C	Rehearsal and Performance - Cast III
DRMA 0023D	Rehearsal and Performance - Cast IV
DRMA 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 0014	Natural Disasters
ESCI 0015	Introduction to Oceanography
ESCI 0015L	Introduction to Oceanography Laboratory
ESCI 0028	Independent Study ¹

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
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Engineering

ENGR 0010	Engineering Survey Measurements
ENGR 0017	Introduction to Circuit Theory
ENGR 0017L	Circuit Theory Laboratory
ENGR 0022B	Descriptive Geometry and Solid Modeling
ENGR 0028	Independent Study ¹
ENGR 0035	Statics
ENGR 0037	Manufacturing Processes
ENGR 0045	Materials Science
ENGR 0150	Introduction to the Engineering Profession

English

ENGL 0001A	Introduction to Composition
ENGL 0001B	Critical Thinking and Writing about Literature
ENGL 0001C	Critical Thinking and Writing across the Curriculum
ENGL 0002	Structure of English
ENGL 0016	Introduction to LGBTIQ Literature
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 0041	The Documentary Film: Argumentative Discourse
ENGL 0042	The Documentary Film
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 0030C	Academic Reading and Writing (maximum credit, 1 course from ESL 0030C and ESL 0030W)
ESL 0030W	Advanced Writing (maximum credit, 1 course from ESL 0030C and ESL 0030W)

Environmental Studies and Sustainability

ESS 0001	The Environment and the Human Impact
ESS 0006	The Sierra Nevada
ESS 0007	Energy, Environment, and Climate
ESS 0010	Conservation of Natural Resources
ESS 0028	Independent Study ¹

Fashion

FASH 0003	Textiles
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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

History

HIST 0004A	Western Civilization to 1715
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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 0027	Women in American History
HIST 0028	Independent Study ¹
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 and Adolescent Development (maximum credit, 1 course from HDEV 0001 and HDEV 0009)
HDEV 0021	Psychology of Marriage and Family
HDEV 0022	The Family

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
ITAL 0003	Intermediate Italian - Level I

Japanese

JPN 0001	Elementary Japanese - Level I
JPN 0002	Elementary Japanese - Level II
JPN 0028	Independent Study ¹

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 0012	College Algebra (maximum credit, 1 course from MATH 0012 and MATH 0029)
MATH 0013	Elementary Statistics (maximum credit, 1 course from MATH 0013 and PSYC 0142)
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 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 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 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 0015	Introduction to Philosophies of Self and Personhood
PHIL 0020	Introduction to 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 0050	Introduction to Philosophy through Literature and Film
PHIL 0060	Introduction to Environmental Ethics
PHIL 0065	Introduction to the Philosophy of Science
Photography	

PHOT 0010	History and Aesthetics of Photography
PHOT 0060A	Elementary Photography
PHOT 0060B	Intermediate Photography
PHOT 0075	Introduction to Digital Imaging
PHOT 0080	Color Photography

Physical Education

PHED 0003A	Basic Aerobic Training with Fitness Equipment ²
PHED 0003B	Advanced Aerobic Circuit Training with Fitness Equipment ²
PHED 0005A	Weight Training ²
PHED 0005B	Strength Training - Circuit and Power Lifting ²
PHED 0006	Physical Fitness ²
PHED 0007	Aerobic Fitness ²
PHED 0008	Aquacise ²
PHED 0009	Step Aerobic Training ²
PHED 0010	Golf ²
PHED 0011	Badminton ²
PHED 0013	Cardio Kickboxing ²
PHED 0014	Tai Chi ²
PHED 0016	Tennis ²
PHED 0019	Mat Pilates ²
PHED 0022	Fitness and Weight Management Boot Camp ²
PHED 0023	Recreational Basketball ²
PHED 0026	Volleyball ²
PHED 0027A	Soccer Level I ²
PHED 0027B	Soccer Level II ²
PHED 0028	Independent Study ¹
PHED 0029	Flag Football ²
PHED 0030	Rugby ²
PHED 0035	Lifeguard Training
PHED 0036	Fundamental Swimming ²
PHED 0039	Swimming Conditioning ²
PHED 0051B	Square Dance
PHED 0051C	Line Dance
PHED 0051D	Modern Ballroom Dance
PHED 0053	Modern Dance
PHED 0054	Jazz Dance
PHED 0055	Fundamentals of Yoga ²
PHED 0056A	Ballet I
PHED 0056B	Ballet II
PHED 0066	Combative Self Defense ²
PHED 0069	Peaceful Self Defense ²
PHED 0071	Adapted Group Activities ²
PHED 0072	Adapted Individualized Exercises ²
PHED 0073	Adapted Aquatics ²
PHED 0074	Adapted Aerobic Fitness ²
PHED 0075	Adapted Walk/Jog ²
PHED 0080	Multi Self Defense System ²
PHED 0081	Introduction to Kinesiology ⁵
PHED 0083	Physiology of Fitness ⁵

PHED 0084	Care and Prevention of Athletic Injuries
PHED 0087	Cross Training ²
PHED 0088	Introduction to Coaching Team Sports ⁵
PHED 0089A	Theory of Baseball ⁵
PHED 0089B	Theory of Basketball ⁵
PHED 0089C	Theory of Softball ⁵
PHED 0089F	Theory of Football ⁵
PHED 0089G	Theory of Volleyball ⁵
PHED 0089H	Theory of Soccer ⁵
PHED 0093	Sports Activities ²

Physics

PHYS 0010	Basic Concepts in Physics (no credit for PHYS 0010 if taken after PHYS 0105 or PHYS 0205)
PHYS 0011	Physical Science Laboratory (no credit for PHYS 0011 if taken after PHYS 0105 or PHYS 0205)
PHYS 0028	Independent Study ¹
PHYS 0105	General Physics I ⁶
PHYS 0105L	General Physics I Laboratory ⁶
PHYS 0110	General Physics II ⁶
PHYS 0110L	General Physics II Laboratory ⁶
PHYS 0205	Principles of Physics: Mechanics ⁶
PHYS 0205L	Principles of Physics Laboratory: Mechanics ⁶
PHYS 0210	Principles of Physics: Electricity and Magnetism ⁶
PHYS 0210L	Principles of Physics Laboratory: Electricity and Magnetism ⁶
PHYS 0210R	Problem Solving for Physics 210 (must be taken with PHYS 0210)
PHYS 0215	Principles of Physics: Heat, Waves and Modern Physics ⁶
PHYS 0215L	Principles of Physics Laboratory: Heat, Waves and Modern Physics ⁶
PHYS 0215R	Problem Solving for Physics 215 (must be taken with PHYS 0215)

Political Science

POLS 0001	American Government
POLS 0002	Comparative Government
POLS 0003	International Relations
POLS 0004	Russian and East European Political Systems
POLS 0007	Politics of the Developing World - Third World Politics
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
POLS 0028	Independent Study ¹

Psychology

PSYC 0028	Independent Study ¹
PSYC 0100	General Principles of 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 Marriage 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 PSYC 0142 and MATH 0013)
PSYC 0160	Psychology and Film
PSYC 0170	Environmental Psychology
Recreation Management	
RECM 0070	Backpacking ²
RECM 0071	Rock Climbing ²
Social Science	
SSCI 0010	Introduction to Ethnic Studies
SSCI 0013	Dialogues in American Culture
SSCI 0020	African American Culture and Experience
SSCI 0025	Mexican American/Latino Culture and Image
SSCI 0028	Independent Study ¹
SSCI 0030	Immigration, Community and Culture: The Asian American Experience
SSCI 0035	Immigrants and Refugees in America: The European Experience
SSCI 0050	Ethnic Images in Film
SSCI 0300F	Italian Life, Culture and Politics
SSCI 0300G	Oaxacan Life and Culture
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
SOC 0020	Introduction to Research Methods
SOC 0027	Sociology of Gender
SOC 0028	Independent Study ¹
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

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

¹ Transfer credit for these courses is given only after review of the course outline by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty.

² Any or all of these ATHL, PHED and RECM activity courses combined: maximum credit, 4 units

³ (Maximum credit, 5 units from BIOL 0004 and BIOL 0008A & BIOL 0008B), (BIOL 0008A & BIOL 0008B must both be completed; BIOL 0008A & BIOL 0008B combined, equivalent to BIOL 0004), (maximum credit, 10 units from BIOL 0005, BIOL 0006, BIOL 0007A & BIOL 0007B and BIOL 0055), (BIOL 0007A & BIOL 0007B must both be completed; BIOL 0007A & BIOL 0007B combined, equivalent to BIOL 0005), (maximum credit, 4 units from BIOL 0010, BIOL 0011 and BIOL 0056/BIOL 0056L; no credit for BIOL 0011 or BIOL 0056/BIOL 0056L if taken after BIOL 0001)

⁴ (Maximum credit, 1 series from CHEM 0001A & CHEM 0001B and CHEM 0002A & CHEM 0002B), (CHEM 0003A & CHEM 0003B must both be completed; CHEM 0003A & CHEM 0003B combined equivalent to CHEM 0001A; maximum credit, 5 units)

⁵ Any or all of these PHED courses combined: maximum credit, 8 units

⁶ Maximum credit, 1 series from PHYS 0105/PHYS 0110 and PHYS 0205/PHYS 0210/PHYS 0215

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Students' Rights and Responsibilities

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Disciplinary Appeal Procedures

If a decision is made to suspend the student for more than ten days or to recommend expulsion, the student will be provided a written notice of the disciplinary action. If the student is a minor, the parent or guardian shall also be provided written notice. The notice shall include:

- A. A statement of the charges, which shall identify the cause for which long-term suspension or recommended expulsion is being imposed. The statement shall briefly describe the facts alleged as a basis for violation of the student code of conduct.
- B. Notification of the student's right to file an appeal leading to the due process outlined below.
- C. Notification that the Disciplinary Appeals Committee may consider the student's previous disciplinary and academic record.
- D. Notification of the student's right to be accompanied by an advisor. 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 the filing of an appeal is made. 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 Disciplinary Appeals Committee and shall not be permitted to participate in any way during the hearing except to offer counsel to the student.
- E. If the suspended student is a minor, the parent or guardian shall also be notified in writing of the suspension.
- F. A copy of these procedures.
- G. A Disciplinary Appeal form.

The notice letter may be amended at any time. If an amendment would require the student to prepare a substantially different defense, the Disciplinary Officer may postpone the hearing for a reasonable time, not to exceed ten days.

The student must submit the Disciplinary Appeal form to the Disciplinary Officer no later than three instructional days after receipt of the notice. Failure to submit an appeal form will be presumed to be the student's acceptance of the disciplinary action. If the student requests an appeal, the Disciplinary Officer will convene a meeting of the Disciplinary Appeals Committee within ten instructional days from the date the Disciplinary Appeal form is filed. The student must contact the office of the Vice President, Student Services for a hearing date.

During the appeals process, students will be allowed to continue with their scheduled classes and activities through the due process procedures unless the Disciplinary Officer has removed the student's privileges to participate in classes or activities or to remain on District-controlled property through the due process procedures in circumstances where the student is considered a threat to the health, safety, or well-being of other members of the campus community.

Disciplinary Appeal Hearings

The Disciplinary Appeals Committee shall consist of three members: one administrator, one faculty member, and one student. The District Superintendent/President or designee shall appoint a chair to the Disciplinary Appeals Committee. The chair shall be non-voting. The chair will request that the Management Senate, Academic Senate, and Student Senate appoint representatives. 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 from the date an appeal is filed. 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 notice of the time, date and place of the hearing.
3. 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.
4. The Disciplinary Officer shall carry the burden of proof by a preponderance of the evidence in support of the disciplinary action. The decision shall be by a majority vote.
5. The student and the Disciplinary Officer have the right to present police reports, written and/or oral statements. Written statement of individuals not present at the hearing must be made under penalty of perjury and must be submitted to the Chair prior to the start of the hearing. If the written statement is disputed by either side, the Chair 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 Chair.
6. All proceedings of the Committee shall be closed to everyone other than the Committee members, the Disciplinary Officer, the student(s) charged, a witness while presenting evidence, the advisor or attorney for the student, and the advisor or attorney for the District. All participants shall maintain the strictest confidentiality. If the student is a minor, the student's parents may also be present.

7. Final deliberations will be conducted with only the Committee members present.
8. The Committee will consider all available evidence relevant to the appeal.
9. The Disciplinary Appeals Committee will provide a written report of its findings to the District Superintendent/President within three instructional days after the conclusion of the hearing. The Committee may choose any of the following options:
 - a. uphold the action
 - b. revoke the action
 - c. impose a lesser action
 - d. impose a more severe action.
10. All Disciplinary Appeals Committee hearing proceedings shall be recorded and all participants will be advised as such. The recordings shall be maintained by the Office of the Vice President, Student Services 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 or as otherwise required by law.

The District Superintendent/President or designee shall review the report of the Disciplinary Appeals Committee. The District Superintendent/President or designee may consult with the chairperson and, if necessary, refer the matter back to that committee for additional clarification. Neither the student nor the parent/guardian shall have a right to a hearing by the District Superintendent/President. The District Superintendent/President or designee shall render a decision as soon as reasonably practicable, which in most cases shall occur within three days of receipt of the report. The District Superintendent/President's decision is final except for such matters as are required to be determined by the Board of Trustees.

Upon suspension or expulsion of a student, the District Superintendent/President or designee shall notify appropriate law enforcement authorities of any acts of the student that may be in violation of Section 245 of the Penal Code (Education Code 76035).

Scope of Expulsion

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.

1. After receipt of a recommendation for expulsion from the Disciplinary Officer and/or the Disciplinary Appeals Committee, the District Superintendent/President shall decide whether to recommend expulsion to the Board of Trustees. It is recommended that this occur within five days.
2. Written notice of the decision shall be provided to the student.
3. The Board of Trustees shall consider any recommendation from the District Superintendent/President for expulsion, preferably at the next regularly-scheduled meeting of the Board after receipt of the recommendation.
4. All deliberations must occur in closed session to protect the student's right to privacy unless the student requests that the hearing be held publicly.
5. The student must be informed of the right to request that a public hearing be held pursuant to Education Code 72122.
6. The final action taken by the Board must be made in public session so as to make a part of the public record and forwarded to the student.

7. The decision of the Board of Trustees shall be final pursuant to Education Code 76030.

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 the Honesty in Academic Work Policy.

The instructor has absolute authority over issuing the final course grade.

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 are encouraged, 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 the Honesty in Academic Work Administrative Procedure 5515.

Examples of Behavior Deemed to be Dishonest

1. Representing as your own, work that was borrowed, purchased, written, or obtained in any other manner from another student or any other sources. All work accomplished to meet course requirements must be the student's own original work in oral and written examinations, class projects, lab data, oral presentations, visual media and other assignments. Group projects must represent the original work of the group; each instructor is free to establish the guidelines for collaborative assignments.
2. Plagiarism, which is to knowingly present borrowed wording, ideas, opinions, visual media (photos, videos, etc.) or data as if it were one's own original creation, must under all circumstances be avoided. In papers based on research, plagiarism can be avoided by clearly acknowledging the sources of all information that is not original. The source of quotations and paraphrases must be acknowledged in footnotes, endnotes, or internal citations and/or in a bibliography/list of works cited in a form or style appropriate to the discipline.

Examples of Cheating

1. Any type of assistance, oral, visual or written, given by one student to another during a project or examination without the approval of the instructor.
2. Fabricating information or sources.
3. Using forbidden notes or other sources of information on examinations.
4. Altering a grade or interfering with the grading procedures in any course.
5. Allowing someone other than the officially enrolled student to represent the same.
6. Forging attendance documents or other records.

7. Stealing copyrighted computer software.
8. Submitting purchased, commercially prepared papers.
9. Using any electronic device (calculator, tape recorder, or computer) during an examination unless permitted by the instructor.

Consequences of Academic Dishonesty

An instructor may choose any one or more of the following steps when a student has engaged in behavior that is deemed to be dishonest:

1. Confront the student or students and give counsel regarding the unacceptable nature of the offense.
2. Reassign the research paper, project, exam, or assignment for reevaluation including the possibility of a lower grade on that assignment as a consequence for the dishonesty.
3. Designate a failing grade or a zero for the assignment, project, exam, or paper.
4. Refer the student or students to the Disciplinary Officer for the consideration of additional and more severe consequences, including the possibility of suspension or expulsion from Sierra College. (See Board Policy 5500)

Standards of Conduct

By enrolling at 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.

Each student is responsible to adhere to the policies and procedures of Sierra College, as well as all federal, state and local laws. 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 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. The Board considers an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures are widely available to students through this catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to:

- Disruptive behavior, willful disobedience, habitual profanity or vulgarity, defiance of the authority of, threats towards, or persistent abuse of, District personnel on District-controlled property or at District sponsored or supervised functions or through electronic means.
- Continued serious misconduct where other means of correction have failed to bring about proper conduct.

- Acts that would be considered sexual harassment as defined by law or by District policies and procedures.
- Falsification, alteration or misuse of District documents and records; or knowingly furnishing false information to the District.
- Act or threat of damage to or theft of property belonging to or located on District-controlled property or facilities.
- Failure to comply with program-specific policies, procedures, and standards and District Board Policies and Administrative Procedures.
- The physical or verbal disruption of instructional or student services activities, administrative procedures, public service functions, authorized curricular or co-curricular activities or prevention of authorized guests from carrying out the purpose for which they are on campus.
- Unauthorized entry into, or use of, District-controlled facilities.
- Failure to comply with directions of District officials, faculty, staff, or campus security officers who are acting in performance of their duties.
- Engaging in conduct which is obscene, lewd or indecent; libelous or slanderous or which so incites students as to create a clear and present danger of the commission of unlawful acts on District premises.
- Cheating or plagiarizing in relation to a District course or academic program (California Education Code Section 76224). See also Board Policy 5515.
- Causing, attempting to cause, or threatening to cause physical injury to another person.
- Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permissions to possess the item from a District employee, which is concurred by the Superintendent/President.
- Gambling on District property.
- Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of, any controlled substance, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia on campus or during District-sponsored activities such as field trips, athletic events, study abroad programs, conferences, and workshops.
- Smoking in an area where smoking has been prohibited by law or District regulation.
- Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to class notes, except as permitted by any District policy or administrative procedure.
- Violation of any statute, regulation, or ordinance or law punishable by incarceration or a fine, other than a vehicular parking violation. Whether a student has committed such a violation shall be determined solely by the District for purposes of any student disciplinary action. Any District disciplinary action is separate and distinct from any other governmental action. The decision of any non-District person or entity, including, but not limited to, a jury, as to whether the violation occurred is not binding on the student disciplinary action, although it may be considered in the student disciplinary action.
- Discrimination against or harassment of another student, District employee, or individual based on disability, gender, gender identity,

gender expression, nationality, race or ethnicity, religion or sexual orientation. (Board Policies 3410 and 3430).

- Engaging in intimidating conduct or bullying against another student or District employee through words or actions, including direct physical contact; verbal assaults, such as teasing or name-calling; social isolation or manipulation; and cyberbullying. (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. Each case is handled individually; while due process is always employed, some of the procedures outlined below may not be necessary in every case. For nursing student discipline procedures and due process, see Administrative Procedure 5521.

Definitions

- A. Day(s): Those days, Monday through Friday, when the District is open to the public.
- B. District: Sierra Joint Community College District, including its officers, agents, employees or members of the Board of Trustees.
- C. Expulsion: Permanent exclusion of the student by the Board of Trustees.
- D. Informal Agreement: A written agreement between the Disciplinary Officer and the student resolving the disciplinary problem. If the student does not comply with the informal agreement, disciplinary proceedings shall be re-instituted against the student at the discretion of the Disciplinary Officer, unless the informal agreement provides otherwise. Failure by the student to comply with the informal agreement is itself a separate cause for discipline.
- E. Instructor: Any academic employee of the District in whose class a student subject to discipline is enrolled, or counselor who is providing or has provided services to the student, or other academic employee who has responsibility for the student's educational program.
- F. Mail: Whenever this policy calls for or permits a written notice or other communication to be given, mailing by certified mail, regular mail and/or by electronic communication and addressed to the last known address of the student shall be deemed to be sufficient compliance with the provision. The District will use reasonable means to transmit notice and communications, using the information provided by the student. It is the student's responsibility to ensure that the District has updated and current contact information at all times. *A student's failure or refusal to sign a receipt to indicate it was received shall not invalidate the contents of the notice.* Personal delivery shall also be deemed compliance with any mailing requirement. Any mail sent to the student's last known mailing address shall be presumed to be received by the student.
- G. Removal from class: Exclusion of the student by an instructor for the day of the removal and the next class meeting. Decisions on such removals shall be final and cannot be appealed.
- H. Student: Any person currently enrolled as a student in any course or program offered by the District.
- I. Suspension: Exclusion of a student for good cause. A student who has been suspended shall be prohibited from being enrolled at any campus or site in the District for the entire period of the suspension.
1. Immediate Suspension—The Discipline Officer may order immediate suspension of a student where he or she concludes that immediate suspension is required to protect lives or property and to ensure the maintenance of order. In such cases where immediate suspension is ordered, a reasonable opportunity will be afforded the student for a hearing thereafter. The Disciplinary Officer may also order suspension of a student as follows:
 2. Suspension from one or more classes, privileges or activities for a period of up to ten (10) instructional days. If a minor student is suspended, the parent or guardian shall be notified in writing of the suspension (Education Code Section 76031).
 3. Suspension from one or more classes, privileges or activities for the remainder of the school term, or for one or more terms. If a minor student is suspended, the parent or guardian shall be notified in writing of the suspension (Education Code Section 76031).
- J. Warning: A verbal or written notice to the student that continuation or additional violations of code of conduct may be cause for subsequent disciplinary action. A written record of the fact that a verbal warning has been issued may become part of a student's record at the District for a period of up to one year. Failure of the District to expunge the written record of a verbal warning after one year shall not be the basis for any legal action against the District. Written warnings shall become part of a student's permanent record at the District.
- K. Withdrawal of Consent to Remain on Campus or District-Controlled Property: Withdraw of consent to remain on any campus or District-controlled property may be imposed by the Disciplinary Officer or designee on any person to remain on campus in accordance with California Penal Code Section 626.4 where there is reasonable cause to believe that such person has willfully disrupted the orderly operation of the campus or facility. The Disciplinary Officer or designee may notify any person that consent to remain on the campus or other District-controlled facility has been withdrawn whenever there is reasonable cause to believe that such person has willfully disrupted the orderly operation of such campus or facility. If the person is on campus at the time, he/she must promptly leave or will be escorted off campus. If consent is withdrawn by the Disciplinary Officer or designee a written report will be promptly made to the Vice President, Student Services. The person from whom consent has been withdrawn may submit a written request for a hearing on the withdrawal within the period of the withdrawal. The written request shall state the address to which notice of hearing is to be sent. The request shall be granted not later than seven days from the date of receipt of the request. The hearing will be conducted in accordance with the provisions of this procedure relating to interim suspensions. In no case shall consent be withdrawn for longer than 14 days from the date upon which consent was initially withdrawn. Any person to whom consent to remain on campus has been withdrawn who knowingly reenters the campus during the period in which consent has been withdrawn is guilty of a misdemeanor and is subject to arrest. This section does not apply to any person who enters or remains on such campus or facility for the sole purpose of applying for the reinstatement of consent or for the sole purpose of attending a hearing on the withdrawal (Penal Code 626.2 and 626.4).

Disciplinary Actions and Procedures

- A. The Disciplinary Officer is the Vice President, Student Services or designee.
- B. Procedures of Immediate Suspension: A student placed on immediate suspension will be afforded a reasonable opportunity for a

hearing day in accordance with Education Code 66017. The decision to place a student on Immediate Suspension is final and cannot be appealed.

C. Procedures for all other disciplinary actions:

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 address the accusations and/or instances of alleged misconduct verbally or in writing. Students must respond within 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.
 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 email), or otherwise disturbing the peace of others specifically named for a specified period of time.
 - d. Place the student on suspension status including one or more of the following:
 1. Suspension from one or more classes or activities (sports, student government, field trips, drama events, etc.) for a period of up to ten days. Any decision to suspend a student for up to ten days shall be final and may not be appealed.
 2. Suspension from one or more classes or activities for the remainder of the term.
 3. Suspension from all classes and activities for one or more terms.
 - e. Recommend expulsion to the Board of Trustees.
 - f. Any other action the Disciplinary Officer deems appropriate.
- D. Informal Agreement of Resolution: In cases where the Disciplinary Officer determines that an Informal Agreement is appropriate, the accused student will be informed that the Informal Agreement, while not a part of the student's permanent record, is binding. If the student fails to abide by the Informal Agreement, such failure will be regarded as actionable misconduct and may subject the student to disciplinary action.
- E. Removal from Class 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. If the student removed is a minor, the Disciplinary Officer shall invite the student's parent or guardian to attend a parent conference regarding the removal as soon as possible. If the instructor or parent or guardian so requests, a District administrator shall attend the conference. During the period of removal, the student shall not be returned to the class from which he or she was removed without the concurrence of the instructor (Education Code Section

76032). Decisions on such removals shall be final and cannot be appealed.

- F. 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.
- G. 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.
- H. 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.
- I. Fees: No student suspended or expelled shall be refunded or credited any fees paid by and/or for the student.
- J. Deadlines: Failure of the District to meet any of the deadlines specified in this Procedure shall not be construed against the District or result in a finding in favor of the student.
- K. Right to include Statement or Response to Disciplinary Action: Pursuant to Education Code 76233, whenever there is included in any student record information concerning any disciplinary action taken by the Disciplinary Officer in connection with the student, the student shall be allowed to include in such a record a written statement or response concerning the disciplinary action.

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 that he or she has 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.

- 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 the Students' Rights and Grievances Policy (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 at <http://californiacommunitycolleges.cccco.edu/complaintsform.aspx>

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 Board Policy 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.

The Student Rights and Responsibilities Handbook is available on the Sierra College web site at www.sierracollege.edu (<http://www.sierracollege.edu>), under Student Rights and Responsibilities. Students may also obtain copies of the Student Rights and Responsibilities Handbook at:

Rocklin Campus
Office of the Dean
Student Services
(916) 660-7304

Sierra College-Nevada County Campus
Dean, Administration Building
(530) 274-5301

Sierra College-Roseville Gateway Center
Admissions Office
(916) 781-6204

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.

Academic Renewal

Past substandard academic performance may not, for a variety of reasons, be reflective of a student's subsequent demonstrated ability. Academic renewal permits the alleviation of all or part of such substandard academic performance at Sierra College in cases where the past work may impair the student's progress toward a legitimate educational or career goal. Grades approved for renewal will remain on the student's

transcript; however, the grades will no longer be included in the computation of the student's GPA.

A request for academic renewal must meet the following guidelines:

1. The student must have completed a minimum of 18 units with a cumulative grade point average of 2.5 or higher in all courses attempted since taking the courses to be alleviated.
2. A minimum of 12 months must have elapsed since the substandard grades were earned.
3. The number of units alleviated may not exceed 30 units, or be in excess of the number of units satisfactorily completed by the student since taking the courses to be alleviated, whichever is lower.
4. Academic Renewal can only be applied to "D" and "F" grades.

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 18 units are earned at another college, an official transcript must be submitted with the petition. The Academic Standards Committee will review the request. For further information, contact a counselor.

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. 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 entries 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. 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, 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 two consecutive semesters¹, 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 two consecutive semesters¹ 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 prior to the start of the subsequent semester.

Readmission After Dismissal

A student who has been dismissed may request readmission after one semester. Readmitted students return to probation in their first semester, and may be held to a limit of units below 13, or to specific courses as approved by the counselor. 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 dismissals have been rectified.

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.

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. Students may audit one course per semester with the instructor's permission. Auditors must be eligible for admission as regularly enrolled students. Please note 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.

A \$15 per unit non-refundable audit fee will be charged unless enrolled in 10 or more units and requesting to audit 3 units or less. Students auditing a class without simultaneous enrollment in any other class are not eligible for tutoring services or campus health center services. Contact an Admissions and Records office for an audit petition and further information.

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, lap-tops, software, and internal or external communications networks that are accessed directly or indirectly from the District's computer facilities.

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.

Credit By Examination (Challenge Petition)

Students may request to challenge a course offered by the college if they have prior knowledge or experience in the subject area. To be eligible to challenge a course, a student must:

1. Currently be registered and in good standing;
2. Currently be enrolled in at least one course other than the course being challenged;
3. NOT be enrolled in the course being challenged;
4. Not have completed nor enrolled in a more advanced course;
5. Have obtained approval of the challenge request from both the course professor AND division dean;
6. Not have challenged more than 15 units ;and
7. Complete at least one course other than the course being challenged.

A course in which a student enrolls and receives a grade of "D," "F," "NC," "NP," or "I," may not be challenged at a later date, nor may a course be challenged again to improve the grade. Units received through the challenge process do not count toward the 12 units in residence required for the associate degree or the full-time enrollment necessary for honor roll determination. Note: Some private institutions will not accept course credit earned through the challenge process.

To request a challenge, a student must file a "Credit by Examination" petition within the first four weeks of the semester or the first week of the summer session. Regulations are stated on the Credit by Examination petition. It is important to note that many courses are not available for the challenge process.

Appropriate challenge fees must be paid when the petition is submitted. For California residents, this is equivalent to the enrollment fee. Nonresident and international students must also pay the appropriate nonresident student tuition. BOGW fee waivers do not cover challenge fees. Fees paid are non-refundable.

Directory Information

Directory information includes name, address, phone number, date and place of birth, major, participation in officially recognized activities and sports, weight and height of athletic team members, dates of attendance, degrees and awards received and most recent previous school attended. Upon request, the college may release this information to military recruiters and the media. Students who do not wish this information to be released must contact an Admissions and Records office during the first two weeks of the semester or the first three days of the summer session.

Disabled Students Programs and Services Academic Accommodations Policy

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 disabled students is to minimize the effects of the disability in the educational

process. The disabled students need to be given the opportunity both to acquire information and to be evaluated in a way which allows the student to fully demonstrate his/her knowledge of the subject. Academic accommodations are individually determined by DSPS certificated faculty in consultation with the students 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 DSPS office with a written verification of their disability including identification of educational limitation(s) due to the disability.
2. Each semester and/or as needed during the semester the student will schedule an appointment to meet privately with a DSPS certificated faculty member to request the academic accommodation(s). The student may, at any time, also request the accommodation directly from the classroom faculty member.
3. The DSPS certificated faculty member will evaluate the requested accommodation on a course-specific basis and will interact and consult as necessary with the student, class instructor(s), and DSPS Coordinator 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 DSPS certificated faculty member will consult further with the instructor 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 faculty member 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 DSPS file.

If the student disagrees with the accommodation determination:

1. The student should contact the DSPS certificated faculty at any time for further interaction. If the student continues to disagree with the accommodation, he/she will be referred to the DSPS Coordinator 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 DSPS Coordinator or designee will discuss and confer with the DSPS 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 DSPS Coordinator.
3. If the student is still not satisfied with the disposition of this accommodation, the DSPS Coordinator 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 DSPS certificated faculty member.

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

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 an instructional dean appointed by the Vice President of Instruction. 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 (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.

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

Non-Evaluative Symbols

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.
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 is assigned when a student who is a member of an active or reserve United 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 withdrawal shall not be counted in progress probation, dismissal calculations, or in calculating the permitted number of withdrawals.

Since professors have the responsibility for evaluating student performance 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. Students may access grades on the Sierra College website at www.sierracollege.edu (<http://www.sierracollege.edu>).

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 will not be used in calculating units attempted nor for grade points.

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 the website at www.sierracollege.edu/security (<http://www.sierracollege.edu/security>). 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>)

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.

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 end of the first 30% of the class term. 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 the Academic Standards Committee.

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.

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 the Assessment Center, emailed to assessment@sierracollege.edu, faxed to the Rocklin campus at (916) 630-4513, or faxed to the Nevada County campus at (530) 274-5307. 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:

- Assessment-Placement Center
- 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 class.

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 and other unlawful harassment, including that which is based on any of the following statuses: national origin, ethnic group identification, religious creed, age, sex, gender identity and expression, race, color, medical condition, ancestry, sexual orientation, marital status, pregnancy, physical disability, mental disability, or perception of having one or more of the foregoing characteristics. Students who wish to review Sierra College's complete Harassment Policy, or who believe they may have been the victim of harassment should contact the Equal Employment Opportunity Officer, (916) 660-7006.

Remedial Coursework Limit

Student need for remedial coursework is determined using appropriate assessment instruments, methods, or procedures. Students are limited to no more than thirty (30) semester units of credit for remedial coursework. 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.

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.

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.

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 (“D,” “F,” “NC,” “NP”) or a withdrawal (“W”) was earned. Enrollment attempts include any combination of withdrawals and substandard grades. (Note: 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 along with counselor and/or instructor review, verification and recommendation. When repetition is approved, the previous grade and credit will be disregarded in computing the student’s GPA.

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; or
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.

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.

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 Sierra College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2011, 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 below. These rates do not represent the success rates of the entire student population at Sierra College nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, 29.90% attained a certificate, degree, or became 'transfer-prepared' during a three-year period from Fall 2011 to Spring 2014. Students who have completed 60 transferable units with a GPA of 2.0 or better are considered 'transfer prepared'.

Based upon the cohort defined above, 12.65% transferred to another postsecondary institution prior to attaining a degree, certificate, or becoming 'transfer prepared' during a five semester period from Spring 2012 to Spring 2014.

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 located at <http://srk.cccco.edu/index.asp>.

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.

Such programs and activities include admission of students, assessment procedures, counseling programs, access to academic courses, athletic programs, career technical education and other activities. Inquiries concerning compliance may be addressed to the Equal Employment Opportunity Officer, (916) 660-7006.

Transcripts

An official transcript is a sealed or verifiable PDF document that reflects a student's academic record. Students may order official electronic transcripts or obtain official transcripts in sealed envelopes. The first two transcripts ever requested from Sierra College are free of charge, excluding in-person, on-demand transcripts. The applicable processing fees listed below are charged for subsequent official transcripts.

Students may request official academic transcripts through the following methods:

- Online at www.sierracollege.edu/admissions (<http://www.sierracollege.edu/admissions>). PDF transcripts sent through electronic delivery are usually processed within the same day at a cost of \$5.00-\$6.00 per transcript. Standard mail service requires five to seven business days to process upon receipt of a signed authorization form and may be ordered at a cost of \$7.00 per transcript. Domestic and international Federal Express service is available at a cost of \$18.00-\$41.00 per transcript.
- In-person, on-demand transcripts are available immediately at the Rocklin campus Admissions and Records office at a cost of \$20.00 per transcript.
- Mail-in transcript requests are processed for a fee of \$5.00 per transcript.

Processing times do not include U.S. Postal Service mailing time. Transcripts are not released until all holds have been cleared for outstanding obligations to the College. For more information on ordering official 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.

Unit Overload

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.
3. Be eligible for ENGL 0001A by assessment or satisfactory completion of ENGL 0000A, ESL 0030C, ESL 0030W, or equivalent.
4. Meet the reading proficiency requirement by assessment or satisfactory completion of ENGL 0001B, ENGL 0001C, ENGL 0011, ENGL 0050, ENGL 0000N, ESL 0030C, ESL 0030R, PHIL 0004, or equivalent.

If a student's GPA is 2.8–2.9 and all other requirements have been met, student must have completed 30 or more college units.

If a student wishes to enroll in more than 20 units, in addition to the above listed requirements, a student must have completed 18 or more units, of which 15 units must have been completed in a single semester. The request will be reviewed for approval by the Dean, Student Services.

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. See 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.

Weapons on Campus

Firearms, knives, explosives, or other dangerous objects are prohibited on any 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.

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