

ALLIED HEALTH

Contact Information

Division

Nursing and Allied Health

Dean

Nancy James

Division Office

V 211, Rocklin Campus

Department Office

RN1 100, Rocklin Campus

Department Phone

(916) 660-8300

Overview

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

Chloe Maurico

Assistant professor, Allied Health

A.S., Sierra College

B.S., Dominican University of California

Allied Health Advisory Committee

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

Degrees/Certificates

Associate Degrees

- Allied Health-General Option (p. 1)
- Allied Health-Pre-Nursing Option (p. 2)

Certificates of Achievement

- Allied Health-General Option (p. 2)
- Medical Assisting (p. 3)
- Surgical Technologist (p. 3)

Allied Health - General Option

AS Degree

The Allied Health General Option is designed as a gateway into allied health professions and to prepare students for success in Allied Health degree

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

- Sierra College Associate Degree Requirements (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/associate-degree-requirements/>);
- California State University General Education Breadth pattern (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/california-state-university-general-education-breadth-requirements/>);
- Intersegmental General Education Transfer Curriculum (IGETC) (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/intersegmental-general-education-transfer-curriculum-igetc/>).

Required Courses

Code	Title	Units
ALH 0020	Introduction to Allied Health	1
Select 17 units from the following: ¹		17
ANTH 0002	Cultural Anthropology	
BIOL 0001	General Biology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0006	Human Physiology	
BIOL 0055	General Human Anatomy and Physiology	
BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory	
BUS 0250	Computer Applications for Business - Microsoft	
CHEM 0001A	General Chemistry I	
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
CHEM 0001B	General Chemistry II	
CHEM 0002A	Introduction to Chemistry I	
CHEM 0002B	Introduction to Chemistry II	
CSCI 0010	Introduction to Computing	
COMM 0001	Fundamentals of Public Speaking	
COMM 0003	Small Group Communication	
COMM 0005	Communication Foundations	
COMM 0007	Intercultural Communication	
COMM 0008	Interpersonal Communication	
ENGL 0000N	Introduction to College Writing	
ENGL 0001A	College Reading, Writing and Research	

HDEV 0001	Human Development Through the Lifespan	
HED 0001	Standard First Aid/Community CPR	
HSCI 0003	Medical Terminology	
MATH 0013	Elementary Statistics	
MATH 0027	Trigonometry	
NUTF 0005	Food Preparation for Nutrition and Life Fitness	
NUTF 0010	Principles of Nutrition	
PHYS 0010	Basic Concepts in Physics	
PHYS 0105	General Physics I	
PHYS 0105L	General Physics I Laboratory	
PSYC 0100	General Principles of Psychology	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0001	Introduction to Sociology	
SOC 0015	Introduction to Statistics in Sociology	
Total Units		18

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

Allied Health - Pre-Nursing Option

AS Degree

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

- Sierra College Associate Degree Requirements (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/associate-degree-requirements/>);
- California State University General Education Breadth pattern (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/california-state-university-general-education-breadth-requirements/>);
- Intersegmental General Education Transfer Curriculum (IGETC) (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/general-education/intersegmental-general-education-transfer-curriculum-igetc/>).

Required Courses

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

or CHEM 0001A	General Chemistry I	
or CHEM 0003A & CHEM 0003B	General Chemistry I - Part 1 and General Chemistry I - Part 2	
COMM 0001	Fundamentals of Public Speaking	3
ENGL 0001A	College Reading, Writing and Research	4
HDEV 0001	Human Development Through the Lifespan	3
or PSYC 0104	Developmental Psychology	
NUTF 0010	Principles of Nutrition	3
PSYC 0100	General Principles of Psychology	3
Demonstrate mathematics proficiency by one of the following:		0-6
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	
PSYC 0142	Introduction to Psychological Statistics	
SOC 0015	Introduction to Statistics in Sociology	
Completion of one year (or block schedule) of Algebra I or higher level mathematics in high school with grades of "C" or better		
Total Units		40-47

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

Allied Health - General Option

Certificate of Achievement

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

Required Courses

Code	Title	Units
ALH 0020	Introduction to Allied Health	1
Select 17 units from the following: ¹		17
ANTH 0002	Cultural Anthropology	
BIOL 0001	General Biology	
BIOL 0004	Microbiology	
BIOL 0005	Human Anatomy	
BIOL 0006	Human Physiology	
BIOL 0055	General Human Anatomy and Physiology	

BIOL 0056 & 0056L	Biology: A Human Perspective and Biology: A Human Perspective Laboratory
BUS 0250	Computer Applications for Business - Microsoft
CHEM 0001A or CHEM 0003A & CHEM 0003B	General Chemistry I General Chemistry I - Part 1 and General Chemistry I - Part 2
CHEM 0001B	General Chemistry II
CHEM 0002A	Introduction to Chemistry I
CHEM 0002B	Introduction to Chemistry II
CSCI 0010	Introduction to Computing
COMM 0001	Fundamentals of Public Speaking
COMM 0003	Small Group Communication
COMM 0005	Communication Foundations
COMM 0007	Intercultural Communication
COMM 0008	Interpersonal Communication
ENGL 0000N	Introduction to College Writing
ENGL 0001A	College Reading, Writing and Research
HDEV 0001	Human Development Through the Lifespan
HED 0001	Standard First Aid/Community CPR
HSCI 0003	Medical Terminology
MATH 0013	Elementary Statistics
MATH 0027	Trigonometry
NUTF 0005	Food Preparation for Nutrition and Life Fitness
NUTF 0010	Principles of Nutrition
PHYS 0010	Basic Concepts in Physics
PHYS 0105	General Physics I
PHYS 0105L	General Physics I Laboratory
PSYC 0100	General Principles of Psychology
PSYC 0142	Introduction to Psychological Statistics
SOC 0001	Introduction to Sociology
SOC 0015	Introduction to Statistics in Sociology
Total Units	18

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

Medical Assisting

Certificate of Achievement

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

successfully passing the externship (ALH 0009). The certificate is designed to focus on providing specific career technical skills; it is not equivalent to an associate degree.

Required Courses

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

Total Units **25.5**

Surgical Technologist Certificate of Achievement

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

Required Courses

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

Total Units **36.5**

Courses

Understanding course descriptions (<http://catalog.sierracollege.edu/archive/2024-2025/student-resources/course-information/understanding-course-descriptions/>)

ALH 0001. Electronic Health Record/Billing*Units: 2.5*

Prerequisite: Completion of BIOL 55, BUS 250, HED 2, and HSCI 3 with grades of "C" or better

Hours: 63 (36 lecture, 27 laboratory)

How to document the total patient encounter in the Electronic Health Record using a current vendor product along with Medisoft Clinical Practice Management which incorporates the electronic billing process. (letter grade only) (not transferable)

ALH 0002. Medical Coding*Units: 2.5*

Hours: 63 (36 lecture, 27 laboratory)

Students will acquire basic knowledge of the functions of coding in the ambulatory medical setting. In addition, students will learn to interpret and locate codes in both the CPT (Current Procedural Terminology) and ICD-10-CM (International Classification of Disease, clinical modification 10) manuals. (letter grade only) (not transferable)

ALH 0003. Introduction to Pharmacology for Medical Assisting*Units: 2.5*

Hours: 63 (36 lecture, 27 laboratory)

Introduction to the principles of pharmacology and medication forms, routes of administration, and common medication for each body system as used in the ambulatory setting. (letter grade only) (not transferable)

ALH 0004. Physical Exam Procedures*Units: 3*

Hours: 90 (36 lecture, 54 laboratory)

Prepares students to perform clinical tasks within the scope of practice of a medical assistant. Skill competencies include preparation of exam rooms, acquisition of patient history and vital signs, introduction to oral medication administration, nutritional education planning, orthopedic bracing/casting, handling office emergencies, and performing CPR and electrocardiograms. (letter grade only) (not transferable)

ALH 0005. Medical Office Procedures*Units: 3*

Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Designed for the Clinical Medical Assistant to learn legal/ethical and accepted procedures for any ambulatory setting. (letter grade only) (not transferable)

ALH 0006. Medical Office Laboratory Procedures*Units: 3*

Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Students will acquire skills to competently implement and evaluate standard laboratory tests as performed in medical offices or general lab settings. Emphasis on specimen collection, handling and storing procedures, analysis and interpretation of normal and abnormal lab values. Acquire phlebotomy skills that prepare students to practice within their scope of work as a medical assistant. (letter grade only) (not transferable)

ALH 0007. Medical Asepsis and Surgical Procedures*Units: 3*

Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 99 (45 lecture, 54 laboratory)

Students will acquire knowledge to apply theory to practice while assisting with minor office surgeries and wound care. Sterile and aseptic techniques, sterile field and instrument sanitization procedures and protocols prepare students with the necessary skills to practice within the scope of practice of a medical assistant. Students will perform training for recognizing risks of bloodborne pathogens, infection control, body substance isolation (BSI), and personal protection equipment in accordance with OSHA standards specific to the healthcare professional and in accordance of the scope of practice of a medical assistant. Provides the American Heart Association (AHA) Basic Life Support/CPR certification for Healthcare Providers. (letter grade only) (not transferable)

ALH 0008. Medication Administration and Injection Procedures*Units: 3*

Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better
Hours: 90 (36 lecture, 54 laboratory)

Students will acquire and apply knowledge of various routes of medication administration and the related injection safety, techniques, and site selection. Medication dosage calculations, medication side effects and emergencies pertaining to medication administration will prepare students to practice within the scope of practice of a medical assistant. (letter grade only) (not transferable)

ALH 0009. Medical Assisting Clinical Practicum Experience*Units: 3*

Prerequisite: Completion of ALH 5, 6, 7, and 8 with grades of "C" or better
Hours: 162 laboratory

Students will acquire clinical Medical Assisting experience in the work setting under the supervision of a licensed physician in a Board-Certified medical office setting or outpatient facility. (letter grade only) (not transferable)

ALH 0010. Introduction to Phlebotomy*Units: 3*

Hours: 91 (43 lecture, 48 laboratory)

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

ALH 0011. Phlebotomy Clinical Practicum Experience*Units: 0.5*

Prerequisite: Completion with grade of "C" or better or concurrent enrollment in ALH 10

Hours: 40 laboratory

Students will acquire Phlebotomy experience in the work setting under the supervision of a certified phlebotomist. The clinical practicum is conducted as a non-paid clinical laboratory experience. Students will perform at least 50 venipuncture procedures on patients that represent a variety of age groups and medical conditions. Emphasis on phlebotomy techniques, infection control, safety, specimen collection and handling, medical and legal considerations, patient care and preparation and performance in venipunctures, capillary punctures, and basic laboratory tests expected of the entry level phlebotomy position (CPT 1). (letter grade only) (CSU)

ALH 0020. Introduction to Allied Health*Unit: 1*

Hours: 18 lecture

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

ALH 0022. Basic Sciences for Surgical Technology*Units: 6.5*

Prerequisite: Completion of HSCI 3 and BIOL 55 or BIOL 5 and BIOL 6 with grade(s) of "C" or better

Hours: 135 (108 lecture, 27 laboratory)

Review human anatomy and physiology for surgical procedures and common disease states requiring surgical intervention. Also covers medications used during surgery. Concepts of microbiology and basic physics are discussed as they are applied to operating room procedures and practices. Introduces operating room protocols and procedures, aseptic techniques, disinfection, sterilization, instruments, and equipment. (letter grade only) (not transferable)

ALH 0023. Patient Care Concepts for Surgical Technology*Units: 5.5*

Hours: 99 lecture

Provides the student with a theoretical and practical understanding of the technology and practices used in caring for a patient undergoing a surgical procedure. Additional material covers the structure and function of a healthcare facility specifically the Operating Room. (letter grade only) (not transferable)

ALH 0024. Skills Lab for Surgical Technology*Units: 5.5*

Prerequisite: Completion of ALH 22 and ALH 23 with grades of "C" or better

Hours: 297 laboratory

Students practice the clinical skills required to demonstrate competency in the operating room. Skills include, but are not limited to aseptic practices such as scrubbing, gowning and gloving, setting up the instrument table, positioning the patient, and passing instruments supplies and medications to the surgeon. Prepares the student for clinical internship. (letter grade only) (not transferable)

ALH 0025. Surgical Specialties for Surgical Technology*Units: 6*

Hours: 108 lecture

Covers the most common procedures and equipment utilized by the surgical technologist during specialty surgery. These specialties include neurosurgery, vascular surgery, orthopedic surgery and others. Prepares the student for the national certification exam. (letter grade only) (not transferable)

ALH 0026. Surgical Technology Clinical Practicum*Units: 10*

Prerequisite: Completion of ALH 24 and ALH 25 with grades of "C" or better

Hours: 540 laboratory

Provides the student with hands-on experience in the surgical suite caring for patients under the supervision of a surgical technologist or a registered nurse. They will also gain experience in patient and staff interaction and communication. It prepares the student for the national certification examination. (letter grade only) (not transferable)

ALH 0027. Law and Ethics for Allied Health Professionals*Units: 2*

Hours: 36 lecture

Legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bio-ethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services for the allied health professional. (CSU)

ALH 0029. Certified Surgical Technologist (CST) Exam Prep*Unit: 1*

Prerequisite: Completion of ALH 22, ALH 23, ALH 24, ALH 25, ALH 26 and ALH 27 with grades of "C" or better

Hours: 24 lecture

Preparation and review for the Certified Surgical Technologist (CST) examination offered by the National Board of Surgical Technology and Surgical Assisting. (letter grade only) (not transferable)

Program Student Learning Outcomes

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