



# Health Science

College of Health and Human Services

Bachelor of Science • Minor

## PROGRAM DESCRIPTION

The academic area of study in Health Science is part of the total program of the College of Health and Human Services. Students pursue a concentration of courses leading to a degree with specialization and job skills applicable to community settings, health care administration, occupational health and safety, and other health related fields. The faculty continues to support the idea of broad based professional preparation such that graduates will have wider appeal in the job market.

Students can expect to be involved, both in class and field experiences, in areas that deal with significant issues such as health care costs, consumer related issues, drug related problems, sexuality related matters, non-intentional injury causes and prevention, and other personal, occupational, and community health and safety issues as well as management, business and administration skills in the health care administration option.

### Career Possibilities

Community Health Educator • Loss-Control Specialist • Family Planning Educator • Public Health Educator • Alcohol Education Consultant • Environmental Health Specialist • Occupational Safety Specialist • Public Health Investigator • OSHA Inspector • Consumer Safety Inspector • Health Program Coordinator

### Faculty

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### Contact Information

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Students interested in pursuing advanced degrees in the broad health sciences will find that the BS program provides the foundation upon which to build MPH, MA or MS in community, health care administration, or occupational health and safety degree programs.

### Concentrations

- **BS:** Community Health Education / Health Care Administration / Occupational Health and Safety

### Special Features

- A key feature of the program involves the diversity of the field experiences available. Students may select from state, county, city, or local health and safety related agencies, hospitals, as well as any private voluntary not-for-profit agency. This on-site experience continues to be a valuable professional experience that may lead to employment.
- Employment opportunities can be identified in any of the school/community health/safety/health care related programs, as well as in the private sector. Employment opportunities often evolve from the networking that develops naturally from students' field experiences.
- Because of the unique location of the University in the state capital, students majoring in Health Science benefit from professional health resources of numerous state and local health agencies that include, but are not limited to the Sacramento County Department of Health and Human Services, California State Departments of Health Services, Mental Health, Aging and Alcohol and Drug Abuse. A variety of health/safety related agencies provide opportunities for field work experiences, internships, part-time and summertime employment.
- Courses are offered on a schedule to accommodate both full-time and part-time students.
- The faculty consists of members with specialized preparation in the health science field. Our full-time faculty is augmented by the use of adjunct instructional staff selected from the above mentioned health science agencies.

**Note:** Students who have completed the physician assistant program at UC Davis Medical Center and who wish to obtain a BS degree in Health Science at California State University, Sacramento, should contact the Sacramento State Outreach Office for application and course requirements.

## UNDERGRADUATE PROGRAMS

### Requirements • Bachelor of Science

Units required for Major: 67-71

Minimum total units required for BS: 120

All courses must be completed with at least a “C” grade.

*Courses in parentheses are prerequisites.*

#### A. Health Science Pre-Major (25 units)

- (4) BIO 25 Human Anatomy and Physiology I
- (4) BIO 26 Human Anatomy and Physiology II (BIO 25 or instructor permission)
- (5) CHEM 6A Introduction to General Chemistry (One year high school algebra; high school chemistry strongly recommended)
- (3) HLSC 50 Healthy Lifestyles
- (3) HLSC 98 Health Science ProSeminar
- (3) PSYC 5 Introductory Psychology: Individual and Social Processes
- (3) STAT 1 Introduction to Statistics (MATH 9 or three years of high school mathematics which includes two years of algebra and one year of geometry; completion of ELM requirement and the Intermediate Algebra diagnostic test.)

#### B. Required Upper Division Courses (12 units)

- (3) HLSC 114 Human Ecology and Health
- (3) HLSC 118 Community Health
- (3) HLSC 148 Epidemiology (BIO 10, CHEM 1A, STAT 1, or instructor permission)
- (3) HLSC 195 Fieldwork - Health or Safety (Permission of faculty advisor, program coordinator and Department chair)

**Note:** Health Science courses depend upon concentration, permission of the faculty advisor, program coordinator, and department chair.

#### Additional Requirements For Concentrations

Select **one** concentration from the following three options, in addition to requirements above.

#### Community Health Education (30)

- (3) HLSC 100 Fundamentals of Safety and Health
- (3) HLSC 112 Disease Prevention
- (3) HLSC 116 Public Health Administration and Policy
- (3) HLSC 119 Community Health Education (HLSC 118 or instructor permission)
- (3) HLSC 122 Health Psychology
- (3) HLSC 124 Consumer Health Education
- (3) HLSC 130 Alcohol and Other Drugs
- (3) HLSC 144 Community Health Planning and Evaluation (HLSC 118, HLSC 148 or instructor permission)
- (3) HLSC 147 Health Data Analysis (STAT 1 and/or instructor permission)
- (3) Select one of the following courses:  
 HLSC 117 Global Health  
 HLSC 134 Understanding Human Sexuality  
 HLSC 150 Aging and Health

#### Health Care Administration (30)

- (3) ACCY 1 Accounting Fundamentals (Entry Level Math (ELM) test of at least 36 or a CR grade in LS 7A)
- (3) COMS 161 Health Communications
- (3) ECON 1A Introduction to Macroeconomic Analysis  
**OR**  
 ECON 1B Introduction to Microeconomic Analysis
- (3) HLSC 116 Public Health Administration and Policy
- (3) HLSC 144 Community Health Planning and Evaluation (HLSC 118, HLSC 148 or instructor permission)
- (3) HROB 151 Management of Human Resources
- (3) OPM 160 Principles of Quality Management
- (3) PHIL 104 Bioethics
- (3) PSYC 108 Organizational Psychology
- (3) SWRK 151 Health Services and Systems

#### Occupational Health and Safety (32-34)

- (5) CHEM 6B Introduction to Organic and Biological Chemistry (CHEM 1A or CHEM 6A or a high school chemistry course and passing a qualifying exam given in the first laboratory period) **OR**  
 CHEM 20 Organic Chemistry Lecture--Brief Course (CHEM 1B)
- (3) HLSC 100 Fundamentals of Safety and Health
- (3) HLSC 106 Occupational Health (HLSC 100 or instructor permission)
- (3) HLSC 107 Occupational Safety (HLSC 100 or instructor permission)
- (3) HLSC 108 Occupational Health and Safety: Laws and Regulations (HLSC 100 or instructor permission)
- (3) HLSC 109 Cause and Control of Occupational Loss (HLSC 100 or instructor permission)
- (3) HLSC 110 Issues in Occupational Health and Safety (HLSC 100)
- (9-11) Select three of the following courses:  
 BIO 139 General Microbiology (BIO 10 or BIO 20 or both BIO 1 and BIO 2; CHEM 6B, CHEM 20 or CHEM 24)  
 ENVS 130 Environmental Toxicology (CHEM 1A or CHEM 6A or instructor permission)  
 FIN 138 Principles of Risk Management and Insurance  
 HLSC 196 Experimental Offerings in Health Science  
 PHYS 5A General Physics: Mechanics, Heat, Sound (Recently completed three years of high school algebra and geometry; and a college course in algebra and trigonometry (MATH 9 recommended) for those having an inadequate mathematics background)  
**OR**  
 PHYS 10/PHYS 10L Physics in Our World/Laboratory

#### Additional Information

**Repeat Policy:** Health Science majors and minors can only repeat Health Science courses one time if they receive less than a “C”. Students must meet with their academic advisor before petitioning the department to repeat the course. Refer to the Repeat Policy section of the Sacramento State Catalog for additional information.

**Credit by Examination:** A student who seeks course credit by examination is to enroll in the course to be challenged. No course may be challenged after the first two weeks of the semester. The instructor of the course will conduct an assessment of the student's readiness for the challenge for credit examination. Refer to Credit by Examination section of the Sacramento State Catalog.

**Advising:** It will be necessary to work very closely with an advisor to complete the BS degree in a timely manner. Therefore, the Health Science faculty strongly recommends that all Health Science students consult with an advisor prior to enrollment for any course. This procedure should be followed each semester.

### Requirements • Minor

**Note:** All Health Science courses must be completed with a "C" grade or better.

#### Minor in Health Science

Units required for the Minor: 21, all of which must be Health Science courses. The 21 units selected require approval by a Health Science faculty advisor.

#### Minor in Occupational Health and Safety

Units required for the Minor: 18

#### A. Required Upper Division Courses (12 units)

- (3) HLSC 100 Fundamentals of Safety and Health
- (3) HLSC 106 Occupational Health (HLSC 100 or instructor permission)
- (3) HLSC 107 Occupational Safety (HLSC 100 or instructor permission)
- (3) HLSC 108 Occupational Health and Safety: Laws and Regulations (HLSC 100 or instructor permission)

#### B. Additional Upper Division Requirements (6)

- (6) Select two of the following:
  - HLSC 109 Cause and Control of Occupational Loss (HLSC 100 or instructor permission)
  - HLSC 116 Public Health Administration and Policy
  - HLSC 118 Community Health
  - HLSC 195 Fieldwork - Health or Safety (Permission of faculty advisor, program coordinator and Department Chair)
  - HLSC 196 Experimental Offerings in Health Science

### Lower Division Courses

**HLSC 50. Healthy Lifestyles.** Examines the concepts of: health and wellness; the determinants of health and wellness; and the concept of self-responsibility for health and wellness. These health and wellness concepts shall be applied to the areas of: mental wellness, nutrition, fitness, human sexuality, and drugs. The lecture/discussion format provides for a sharing of views regarding the integrated concepts of health that emphasizes the physical, mental, emotional, social, spiritual, and environmental factors that influence an individual's health status. **Units:** 3.0.

**HLSC 98. Health Science ProSeminar.** Potential and beginning Health Science students become oriented to the Health Science discipline. They will acquire and develop the knowledge and understanding needed to fulfill the Health Science major learning outcomes. Students will develop their individual learning plans designed to assure fulfillment of the Health Science major, General Education, and University graduation requirements. **Units:** 3.0.

### Upper Division Courses

**HLSC 100. Fundamentals of Safety and Health.** Explores global and national issues in occupational and non-occupational safety and health. Subjects include motor vehicle, consumer, workplace, fire, school, and home safety. Examines concepts and principles related to the cause, control, and mitigation of unintentional injuries and illnesses. Emphasizes the development, implementation, and integration of effective safety and health program strategies in the prevention and control of loss. **Units:** 3.0.

**HLSC 106. Occupational Health.** Concepts of occupational health as they pertain to appraising and controlling occupational health hazards, including occupational diseases, chemical, biological, and physical agents. Discusses techniques for the recognition, evaluation, prevention, and control of occupational health hazards. **Prerequisite:** HLSC 100 or instructor permission. **Units:** 3.0.

**HLSC 107. Occupational Safety.** Examines common hazards and problems encountered in the workplace, including concepts and principles related to the control and mitigation of occupational safety hazards. Emphasizes the development, implementation, and integration of effective occupational safety and health program components. **Prerequisite:** HLSC 100 or instructor permission. **Units:** 3.0.

**HLSC 108. Occupational Health and Safety Laws and Regulations.** Overview of regulatory agencies involved in occupational health and safety and their functions in the enforcement of regulation and/or compliance of safety laws. Special emphasis on Cal/OSHA. Other topics: application of surveillance, research, control technology, and trained personnel to maintain compliance. Recognizes that strategies to achieve a safe workplace includes an analysis of economic and employment impacts on the employer. **Prerequisite:** HLSC 100 or instructor permission. **Units:** 3.0.

**HLSC 109. Cause and Control of Occupational Loss.** Study of the characteristics, causes, and control of occupational loss; influence of the work environment and system structure on incident outcomes; and analysis of occupational injuries and illnesses through the application of incident investigation and system safety techniques. Course will use occupational injuries and illnesses to focus on the process of problem identification and analysis, including the development and implementation of control measures. **Prerequisite:** HLSC 100 or instructor permission. **Units:** 3.0.

**HLSC 110. Issues in Occupational Health and Safety.** Examines current and emerging issues in occupational health and safety, including historical, philosophical, and conceptual factors that serve as a basis for predicting, understanding, and resolving occupational health and safety issues. Examples include: Issues in high hazard industries, special populations at risk, emerging technologies, occupational hazards, and traumatic injuries. **Prerequisite:** HLSC 100. **Units:** 3.0.

**HLSC 112. Disease Prevention.** Surveys the current methods of promoting high level wellness through a preventive medicine approach for the promotion of more enjoyable and productive living. Attention directed toward the specific methods of promoting personal health through various current methodologies including the "holistic health" movement. Meets the needs of major students as well as those in allied fields such as nursing, social work and other interested students. **Units:** 3.0.

**HLSC 114. Human Ecology and Health.** Emphasizes the social and natural environmental influences that have a direct impact upon the health of the individual. Primary consideration is directed to an analysis of health as influenced by a person's interaction with his/her environment. **Units:** 3.0.

**HLSC 116. Public Health Administration and Policy.** Understanding of the management of public health programs; pattern of health organization; the scope of public health concern of environmental health and health service marketing. Consideration of the various administration factors involved in the practice of public health by department, division or agency unit. **Units:** 3.0.

**HLSC 117. Global Health.** Introduction to the globalization of public health and the critical health issues facing all citizens of the world, with special emphasis on health concerns of developing countries. Topics include global malnutrition, primary health care, maternal and child health, international environmental health, comparative health care systems, epidemiology and international health threats, and sustainable health and development programs undertaken by nongovernmental organizations. **Units:** 3.0.

**HLSC 118. Community Health.** Insights into comprehensive planning for health by community health agencies and organizations in implementing their programs. **Units:** 3.0.

**HLSC 119. Community Health Education.** In addition to the current practice in community health education, examines the philosophical, conceptual and theoretical constructs that serve as a basis for understanding, predicting and facilitating change in health-related behavior. Explores the use of health communication processes, selected instructional media, health planning, community organization techniques, and mass communications in community health education. **Prerequisite:** HLSC 118 or instructor permission. **Units:** 3.0.

**HLSC 122. Health Psychology.** Introduction to behavioral and social factors which influence health and illness. Explores the causes of premature death, the relationships between personality and health, and the development of health problems. Includes an overview of psychological principles in behavioral medicine, physiological foundations of health psychology, the role of emotions in immune function, and topical theories of, techniques for, and research on how psychology can help people live longer, healthier lives. **Units:** 3.0.

**HLSC 124. Consumer Health Education.** Introduction to the processes and methods of conducting health education within the clinical setting and the integration of educational theory and applied health knowledge specific to common health disorders. Topics to include the dimensions of quackery in health treatments, efficacy of safety standards, and the elements of deceptive advertising and bogus claims. Emphasis on how to distinguish health facts from bogus claims, make effective consumer decisions of health care services, and the basics of self-health care. **Units:** 3.0.

**HLSC 130. Alcohol and Other Drugs.** Examines the scientific facts about drugs. Contemporary problems of alcoholism and drug abuse will be discussed. Various aspects of all drug usage will be studied with emphasis on prevention and the role of health education. **Units:** 3.0.

**HLSC 134. Understanding Human Sexuality.** Provides a variety of information about the physiological, psychological, social, and cultural differences and similarities of the sexes. Sexual myths and misconceptions will be explored. Contemporary sex rules and patterns of interactions currently practiced in our society will be discussed. **Units:** 3.0.

**HLSC 136. School Health Education.** Provides teacher candidates, social workers, and nurses an understanding of the educational methods, processes, and content of the scope of health education as provided in the Framework for Health Instruction of the California State Department of Education. Offers an understanding of current problems related to personal, family and community health. General theories and organization for teaching health education will be discussed. Meets the requirement for teacher candidates under the SB2042. **Note:** Not open to lower division students. **Prerequisite:** CPR training; may be taken concurrently. **Units:** 2.0.

**HLSC 144. Community Health Planning and Evaluation.** Introduces students to the process and practice of program planning and evaluation. Examines the social and physical determinants of health; the impact of the community structure on health status; and, the influence of personal health behavior on community health education practice. These concepts shall be applied in the planning, implementation, and evaluation of health education services. **Prerequisite:** HLSC 118 and HLSC 148 or instructor permission. **Units:** 3.0.

**HLSC 147. Health Data Analysis.** Introduction to methods and statistical practices used in the health sciences. Emphasis on the methods of collection, analysis, interpretation, and presentation of health data. Conceptual learning will be facilitated by sessions using computational software. **Prerequisite:** STAT 1 and/or instructor permission. **Units:** 3.0.

**HLSC 148. Epidemiology.** Designed to offer cognitive insights into community health epidemiology. Provides understanding of the study of the distribution and determinants of communicable, infectious and chronic diseases, and of injuries in the human population. **Prerequisite:** BIO 10, CHEM 1A, STAT 1, or instructor permission. **Units:** 3.0.

**HLSC 150. Aging and Health.** Designed to introduce students to the basic aging and health concerns of older people and to broader issues of aging, health and society. Examines the: demography of the aging population, biological theories of aging, social and psychological aspects of aging. Includes such issues as nutrition, drugs, exercise, sexuality, patterns of health services utilization, institutionalization, alternatives to the provision of long-term care in institutions, and dying. **Units:** 3.0.

**HLSC 195. Fieldwork - Health or Safety.** To obtain insights into the practical application of the classroom teachings, fieldwork experiences are required of those preparing for a career in community health education or other areas of health and safety studies. **Note:** Submit an application for field work no later than the fourth week of the semester prior to taking HLSC 195. May be repeated once for credit. **Prerequisite:** Permission of faculty advisor, program coordinator and Department chair. **Graded:** Credit / No Credit. **Units:** 2.0-4.0.

**HLSC 196. Experimental Offerings in Health Science.** Undergraduate seminar designed to provide an in-depth examination and discussion of current topics in the area of personal and community health and safety. **Units:** 1.0-3.0.

**HLSC 199. Special Problems. Note:** Open only to HLSC majors and minors who appear competent to conduct independent work such as: individual research, a special project, or directed reading in the health and safety studies field; must be officially enrolled and submit proper forms along with written proposal describing intended scope of work. **Prerequisite:** Permission of faculty under whom individual work will be conducted, program coordinator, and Department chair; HLSC 116, HLSC 118, HLSC 119, and HLSC 148 are strongly recommended. **Graded:** Graded (CR/NC Available). **Units:** 1.0-3.0.