INTRODUCTION

The mission of Health Science focuses on understanding and promoting health in diverse populations. Health science bridges the gap between scientific discoveries and the application of this knowledge to improve the quality of people’s lives. Health science research reflects the range of diverse health problems, settings and populations. The approach considers the multi-level determinants of health and well-being, including individuals, groups, organizations and communities. Health science professionals work at these various levels to implement and evaluate efforts that promote health and prevent illness and disease. An important aspect of this process involves empowering people to change the factors that influence their health and well-being, be it within the individual or in their social environment.

The Health Science program offers a Bachelor of Science degree in Health Science with focus areas in health promotion and disease prevention, occupational and environmental health or global health. The undergraduate minor in Health Science, based on core curricula, provides opportunities for professional and/or personal enhancement.

The Master of Public Health (MPH) degree offers specialized areas of study in health promotion and disease prevention, environmental and occupational health, and gerontological health.

LEARNING GOALS AND STUDENT LEARNING OUTCOMES

The following goals and learning outcomes have been established for students pursuing a degree in health science:

An understanding of theories and research-based health interventions
- Describe major theories associated with health science and public health
- Describe the steps involved in planning, implementing and evaluating research based health interventions

Information literacy and research skills
- Access and identify evidence based information sources relevant to specific health issues
- Analyze statistical, epidemiological and qualitative data to promote population health

Professional, ethical and reflective practice with diverse populations
- Apply theories, research findings and best practices to promote health with diverse communities
- Analyze ethical issues that arise in the field of health science and public health

Communication skills
- Make effective oral presentations taking into account diverse stakeholders
- Write effectively taking purpose and audience into account
BACHELOR OF SCIENCE IN HEALTH SCIENCE
(120 UNITS)

The Bachelor of Science degree in Health Science prepares students for careers as health educators, as well as for those who seek quality preparation for advanced study. Through required and elective coursework, students must complete a focus area in health promotion and disease prevention, environmental and occupational health, or global health. The competency-based degree program prepares students for certification as health education specialists and for careers in community health, worksite health promotion, occupational health and safety and/or environmental health.

The degree requires 49 units in the major, all of which must be completed with a “C” (2.0) or better, and must be taken on an Option 1 (letter grade) basis.

Prerequisite Requirements (16 units)
Introductory Biology (3)
BIOL 101, 102, 171, 172, 202 or equivalent
Introductory Chemistry (3)
CHEM 100, 115, 120A, 200 or equivalent
Science Lab (1)
BIOL 101L, CHEM 100L or equivalent
Introductory Social Science (3)
PSYC 101, SOCI 101 or equivalent
Introductory Oral Communications (3)
HCOM 100, 102 or equivalent
Anatomy and Physiology (3)
May be combined/integrated anatomy and physiology or separate courses.

Core Requirements (25 units)
HESC 101 Personal Health (3)
HESC 220 Concepts in Health Science (3), prerequisite for all Health Science 400-level courses; take concurrent with HESC 494
HESC 349 Measurement and Statistics in Health Science (3)
HESC 400 Program Design for Kinesiology and Health Promotion (3)
HESC 401 Epidemiology (3)
HESC 440 Determinants of Health Behavior (3)
HESC 475 Health Science Planning, Research and Evaluation (3)
HESC 494 Practicum in Health Science (1)
HESC 495 Internship in Health Science (3)

Advising Tracks (21 units)

In addition to the core requirements that all health science majors must complete, students are required to select one of the three advising tracks to successfully complete the requirements of the degree.

Health Promotion and Disease Prevention Advising Track (21 units)
Required (12 units)
HESC 410 Community Health Education (3)
HESC 450 Applied Health Promotion in Aging Populations (3)
HESC 455 Designing Health Education Curricula (3)
HESC 460 Worksite Health Promotion (3)

Health Science Electives (6-9 units)
HESC 301 Promotion of Optimal Health (3)
HESC 321 Drugs and Society (3)
HESC 325 Consumer Health (3)
HESC 342 Stress Management (3)
HESC 350 Nutrition (3)
HESC 353 Physical Activity and Lifelong Well-being (3)
HESC 358 Contemporary Issues in Children’s Health (3)
HESC 405 Worksite Injury Prevention and Rehabilitation (3)
HESC 413 Health Policy (3)
HESC 415 Environmental Health (3)
HESC 420 Chronic Disease Epidemiology
HESC 421 Infectious Diseases Epidemiology
HESC 425 Complementary and Alternative Health Therapies (3)
HESC 461 Occupational Safety and Health (3)
HESC 462 Environmental Toxicology and Health
HESC 463 Air Pollution and Health

Elective Courses from other Departments (0-3 units)
Students choose a maximum of three adviser-approved units from the following:
AFAM 304
AMST 438
ANTH 308, 315, 322, 342, 344
ASAM 340, 342, 346, 348
BIOL 300, 302, 305, 306, 310, 360, 361
CHIC 305
GEOG 350
HCOM 345
KNES 348, 351, 432, 454
NURS/HESC 301
PHIL 314
PSYC 312, 341, 350, 351, 362, 391
SOCI 300, 333, 354, 360, 361, 381, 385, 443
SPED 371
WMST 410
Global Health Advising Track (21)

Required (12 units)
HESC 411 Promoting Health in Multicultural Populations (3)
HESC 465 Introduction to International Health (3)
HESC 480 Transdisciplinary Perspectives on HIV/AIDS (3)
HESC 481 Health in a Global Society (3)

Health Science Electives (6-9 units)
HESC 301 Promotion of Optimal Health (3)
HESC 321 Drugs and Society (3)
HESC 325 Consumer Health (3)
HESC 342 Stress Management (3)
HESC 350 Nutrition (3)
HESC 353 Physical Activity and Lifelong Well-being (3)
HESC 358 Contemporary Issues in Children’s Health (3)
HESC 405 Worksite Injury Prevention and Rehabilitation (3)
HESC 413 Health Policy (3)
HESC 415 Environmental Health (3)
HESC 420 Chronic Disease Epidemiology
HESC 421 Infectious Disease Epidemiology
HESC 425 Complementary and Alternative Health Therapies (3)
HESC 461 Occupational Safety and Health (3)
HESC 462 Environmental Toxicology and Health
HESC 463 Air Pollution and Health

Elective Courses from other Departments (0-3 units)
Students choose a maximum of three adviser-approved units from the following:
AFAM 304
AMST 438
ANTH 308, 315, 322, 342, 344
ASAM 340, 342, 346, 348
Biol 300, 302, 305, 306, 310, 360, 361
313A, 313B, 313C
CHIC 305
GEOG 350
HCOM 345
KNES 348, 351, 432, 454
NURS/HESC 301
PHIL 314
PSYC 312, 341, 350, 351, 362, 391
SO# 300, 333, 354, 360, 361, 381, 385, 443
SPED 371
WMST 410

Environmental and Occupational Health and Safety
Advising Track (21 units)

Required (12 units)
HESC 415 Environmental Health (3)
HESC 416 Global Issues in Environmental Health
HESC 461 Occupational Health and Safety (3)
HESC 462 Environmental Toxicology and Health

Health Science Electives (6-9 units)
HESC 405 Worksite Injury Prevention and Rehabilitation (3)
HESC 420 Chronic Disease Epidemiology (3)
HESC 421 Infectious Disease Epidemiology (3)
HESC 460 Worksite Health Promotion (3)
HESC 463 Air Pollution and Health

Elective Courses from other Departments (0-3 units)
Students choose a maximum of three adviser-approved units from the following:
Biol 300, 302, 305, 306, 310, 360, 361
HESC 321, 350, 358, 450
KNES 348
POSC 320
PSYC 350
SOCI 361

English Proficiency Requirement (3 units)
In order to satisfy the upper-division writing requirement of the university, Health Science majors must pass ENGL 301 or 360 with a “C” (2.0) or better. Please see additional information provided in this catalog on the writing requirement.

MINOR IN HEALTH SCIENCE (21-22 UNITS)
The Health Science minor offers two advising tracks: Health Promotion and Disease Prevention (21 units); and Environmental and Occupational Health (22 units).

In completing the requirements for the minor, a minimum of 12 units – at least six of which must be upper division – must be distinct and different from the units used to complete the requirements of the major. Any units above the minimum requirement, which can be used to satisfy both the requirements for the minor and for the major, may be double counted. General education courses, however, may be used to meet minor requirements.

Coursework must be taken for a letter grade and completed with a “C” (2.0) or better to be counted toward the minor.
Core Courses (6 units)
HESC 101  Personal Health (3)
HESC 401  Epidemiology (3)*
   OR HESC 440  Determinants of Health Behavior (3)

*Students preparing to take the REHS exam should select HESC 401.

Health Promotion and Disease Prevention Track (15 units)
Health Science Electives (9-15 units of the following):
HESC 321  Drugs and Society (3)
HESC 325  Consumer Health (3)
HESC/KNES 342  Stress Management (3)
HESC/KNES 350  Nutrition (3)
HESC 358  Contemporary Issues in Children’s Health (3)
HESC 405  Worksite Injury Prevention and Rehabilitation (3)
HESC 410  Community Health Education (3)
HESC 411  Promoting Health in Multicultural Populations (3)
HESC 450  Applied Health Promotion in Aging Populations (3)
HESC 460  Worksite Health Promotion (3)
HESC 461  Occupational Health and Safety (3)
KNES/HESC 353  Physical Activity and Lifelong Well-Being (3)
Elective Courses from other Departments (0-6 units with adviser approval):
AFAM 304
AMST 438
ANTH 308, 315, 322, 342, 344
ASAM 201, 300, 340, 342, 346
BIOL 300, 305, 306, 310, 360, 361
CHEM 303A, 303B, 303C, 311, 313A, 313B,
CHIC 106, 305, 345
GEOG 350
KNES 348, 351, 454
NURS/HESC 301
PSYC 312, 341, 351, 362
SOCI 300, 354, 360, 381, 385, 443
SPED 371
WMST 410

Environmental and Occupational Health Track (16 units)
Required Courses (12 units)
HESC 415  Environmental Health (3)
HESC 461  Occupational Health (3)
HESC 349  Measurement and Statistics in Health Science (3)
   OR Mathematics 120  Introduction to Probability and Statistics (3)
POSC 320  Introduction to Public Management and Policy (3)

Elective Courses (4 units)
BIOL 438  Public Health Microbiology (4)
CHEM 313A  Environmental Pollution and its Solutions: Air Pollution (1)
CHEM 313B  Environmental Pollution and its Solutions: Water Pollution (1)
CHEM 313C  Environmental Pollution and its Solutions: Land Pollution (1)
CHEM 435  Chemistry of Hazardous Materials (3)
GEOL 335  General Hydrology (3)

MASTER OF PUBLIC HEALTH (42 UNITS)
The purpose of the Master of Public Health program is to prepare public health professionals to draw on the knowledge and skills from a variety of disciplines and to define, critically assess, evaluate and resolve public health problems. MPH program graduates will have a common educational grounding that will enable them to work effectively with the broad spectrum of public health issues related to their public health careers.

Application Deadlines
The deadline for completing online applications is March 1 for the following fall semester (see csumentor.edu). Mailed applications need to be postmarked by the same deadline. However, the deadline may be changed based upon enrollment projections.

Admission to Graduate Standing – Classified
Students must meet the CSU requirements for admission to a master’s degree program. Please consult the Graduate Admissions section in this catalog for complete information. Additional requirements for acceptance in the MPH program include:
- Copy of official transcript(s) from all college work sent directly to the MPH Graduate program coordinator
- Two letters of recommendation
- A narrative statement (300-500 words describing how the program relates to professional goals)
- A current résumé
- Completion of six units of statistics and research methods (appropriate courses include statistics, epidemiology, research methods, program design and evaluation, etc.) with a “C” (2.0) or better
- Appropriate education background for career track courses (nine units or equivalent within specialized track. Professionals currently in field can demonstrate proficiency by coursework or by portfolio review or similar supporting evidence).
- GPA of 3.0 in the last 60 units completed
• Paid or volunteer experience in public health, health education or related health area
• Communication skills utilizing a second language encouraged

**Admission to Graduate Standing – Conditionally Classified**

It may also be possible for applicants who have minimal deficiencies in prerequisite requirements, as detailed above, but are otherwise highly qualified, to be admitted in conditionally classified graduate standing; with provisions made for removal of deficiencies prior to the granting of classified standing. For further information, consult with the MPH Program Coordinator.

**GRADUATE STUDY PLAN**

Thirty of the 42 units required for the degree are core competency classes, including a six-unit internship and 12-16 units of electives, 75 percent of which must be 500-level courses. Students work with a faculty adviser to select these electives to support career areas in health promotion, environmental and occupational health, gerontological health, or in a special studies track such as health anthropology or health counseling or other special academic/career needs.

**Core Course Requirements (30 units)**

- HESC 500 Issues in Public Health (3)
- HESC 501 Advanced Methods in Epidemiology (3)
- HESC 508 Statistical Methods in Health Science (3)
- HESC 510 Research Methods in Health Science (3)
- HESC 515 Advanced Environmental Health (3)
- HESC 524 Public Health Administration (3)
- HESC 540 Advanced Study in Health Promotion and Disease Prevention (3)
- HESC 550 Graduate Internship (6)
- HESC 597/598 Project/Thesis (3) or Comprehensive Examination (0)*

*Students who select the Comprehensive Examination will be required to complete an additional adviser-approved 500-level course (3 units).

**Electives (12-15 units)**

Electives must be approved by an adviser.

**HEALTH SCIENCE COURSES**

Courses are designated as HESC in the class schedule.

**101 Personal Health (3)**

Basic concepts relating to health and well-being from a holistic perspective. Mental, emotional, physical and socio-environmental dimensions of health, sexuality and relationships; nutrition and physical fitness; use and abuse of drugs; health care services and current health problems.

**102 Prevention and First Aid (2)**

The hazards in environment. Care and prevention of accidents. Standard first aid certification by the American Red Cross granted upon successful completion of requirements.

**133 Introduction to Gerontology (3)**

(Same as GER/SCI 133)

**203 CPR, Automated External Defibrillator and Standard First Aid (1)**

Provides knowledge and skills necessary to respond to injuries and sudden illnesses in the community. Successful completion provides American Red Cross certifications in infant, child and adult Cardiopulmonary Resuscitation (CPR), Automated External Defibrillator (AED) and Standard First Aid. Credit/No Credit only.

**220 Concepts in Health Science (3)**

Prerequisite: one course from General Education (G.E.) Category B.2 or B.5. Corequisite: HESC 494. Theoretical and practical issues of Health Science as a profession. Topics include history, status, resources, roles in various settings, legal and ethical issues in health education.

**301 Promotion of Optimal Health (3)**

Prerequisites: one course from G.E. Category B.2 and junior or senior standing. Advanced health concepts and practices. Common health problems, causative factors and methods for prevention. Preventive and promotive health concepts and practices; integrating physiological, psychosocial, spiritual, cultural and environmental factors that inhibit or facilitate optimal health. Elective for nursing majors. Offered online only.

**303 Professional Rescuer CPR, Automated External Defibrillator and First Aid (3)**

Prerequisites: KNES 210 and junior or senior standing. Designed for students considering working in medical and health-related fields who must obtain Professional Rescuer (CPR), Automated External Defibrillator (AED) and First Aid certifications. Back injury prevention, stress management and cardiovascular function.

**321 Drugs and Society (3)**

Prerequisites: completion of lower-division general education science requirement and junior or senior status. Habit-forming substances such as alcohol, tobacco, narcotics, hallucinogens, and related drugs, stimulants and depressants. Social, historical and legal aspects of the drug problem are considered.

**325 Consumer Health (3)**

Prerequisites: HESC 101 and junior or senior standing. Analysis and evaluation of health information, products and services; medical quackery, fraudulent health practices and laws and agencies protecting the consumer will be explored. One or more sections offered online.
342 Stress Management (3)
Prerequisites: one course from G.E. Category E; minimum sophomore standing. Nature of stress and physiological and psychological effects of prolonged stress responses. Short- and long-term somatic and behavioral techniques (exercise, relaxation, meditation, nutrition, time management and goal setting) for management of stress. Health Science majors may not count this course for General Education. Kinesiology majors may count this course either for the major or for General Education. (Same as KNES 342)

349 Measurement and Statistics in Health Science (3)
Prerequisites: completion of G.E. Categories B.4 and D.1. Measurement theory and statistics used to evaluate health and human performance, focusing on analyzing and interpreting data in different environments. Lecture, discussion, cooperative learning and field observation. Active participation and experiential learning. One or more sections offered online.

350 Nutrition (3)
Prerequisites: CHEM 111 or equivalent course and junior or senior standing. Concepts of nutrition as they relate to nutritional needs, practices and problems throughout the life cycle. Nutritional counseling and education of individuals/groups toward health promotion and disease prevention. Open to non-nursing majors. One or more sections offered online. (Same as NURS 350)

353 Physical Activity and Lifelong Well-Being (3)
(Same as KNES 353)

358 Contemporary Issues in Children's Health (3)
Prerequisite: junior or senior standing. Overview of common causes of interrelationships between and prevention of morbidity and mortality among children and youth. Preventive and promotive health concepts and practices; connections between health and learning.

400 Program Design in Kinesiology and Health Promotion (3)
Prerequisite: KNES 202 or HESC 220. Provides skills necessary for developing, implementing and evaluating human movement and/or health promotion programs for specific target populations. One or more sections offered online.

401 Epidemiology (3)
Prerequisites: HESC 220 and HESC 349 or KNES 349 or SOCI 303. Application of epidemiologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents and geriatric problems. One or more sections offered online.

405 Worksite Injury Prevention and Rehabilitation (3)
Prerequisite: KNES 210 or HESC 220. How work style, equipment and environment contribute to worksite musculoskeletal injuries. Strategies that can minimize human error, injuries, discomfort and dissatisfaction through injury prevention and rehabilitation of the worker. (Same as KNES 405).

410 Community Health Education (3)
Prerequisites: HESC 220 and junior or senior standing. Multiple settings for community health education practice and professional roles and skills that are required for health educators. Identification of community health education concepts with application to various segments of the nation's health. One or more sections offered online.

411 Promoting Health in Multicultural Populations (3)
Prerequisite: HESC 220. Impact of cultural variables on health/illness. Current and potential strategies to improve health care delivery to ethnic groups. Identification of cultural competence skills that are essential for health educators.

413 Health Policy (3)
Prerequisite: HESC 220. Health policy actors and processes in the United States. Roles of Congress, the President, bureaucracy and interests groups in health policy and the policy process; introduction to policy analysis.

415 Environmental Health (3)
Prerequisite: HESC 220. Overview of environmental concerns as they relate to human health. How environmental factors are involved in the transmission and prevention of diseases and health hazards resulting from exposures.

416 Global Issues in Environmental Health (3)
Prerequisites: HESC 220 and completion of G.E. Category B.2. Environmental factors such as air pollution, population dynamics, urbanization and energy production that influence human and ecological health on the global scale. Methods of control to prevent diseases from environmental agents.

420 Chronic Disease Epidemiology (3)
Prerequisites: HESC 220, 401. Discussion of areas in chronic disease epidemiology, the leading causes of death and disability and the risk factors related to causes and the prevention of disease. May be repeated once for credit.

421 Infectious Disease Epidemiology (3)
Prerequisites: HESC 220, 401. Applies epidemiological concepts to the study and control of infectious disease in human populations. Epidemiologic profile, including agents, modes of transmission, occurrence, clinical characteristics and prevention methods of specific infectious disease.

425 Complementary and Alternative Health Therapies (3)
Prerequisites: HESC 220, junior or senior standing. Theoretical and experiential framework for understanding alternative healing modalities recognized by the National Center for Complementary and Alternative Medicine.
**430 Health Psychophysiology I (3)**
Prerequisites: BIOL/KNES 210, PSYC 101 and two 300-level psychology courses. History, theory, research, physiology and applications of biofeedback and other self-regulatory techniques. By completing HESC 430 and 431, the student will meet the requirements to sit for the Biofeedback Certification Institute of America exam.

**431 Health Psychophysiology II (3)**
Prerequisites: HESC 430 and junior standing. Didactic training and lab experience in the treatment of psycho physiological disorders incorporating biofeedback therapy. Work completed will meet the practical and mentoring (supervision) requirements for Biofeedback Certification Institute of America certification in general biofeedback.

**440 Determinants of Health Behavior (3)**
Prerequisite: HESC 220 or KNES 202. Contemporary research on the health effect of human behavior. Introduction to theoretical foundations and practical applications of behavior in the context of health: physical, psychological, cultural and social health. Current issues and theories of health behavior. One or sections offered online.

**450 Applied Health Promotion in Aging Populations (3)**
Prerequisite: HESC 220 or graduate standing. Promotion/ risk reduction program content, development, implementation and evaluation. Topics include weight control, stress management, substance abuse, physical fitness and accident prevention. One or more sections offered online.

**455 Designing Health Education Curricula (3)**
Prerequisite: HESC 220 or graduate standing. Theory and skills necessary to develop curriculum based on analysis of individual, community and societal needs and interests. One or more sections offered online.

**460 Worksite Health Promotion (3)**
Prerequisite: HESC 220 or KNES 202. Philosophy, rationale and guidelines for developing health promotion programs in the corporate setting. Unique considerations in assessing needs, planning and implementing programs, evaluating effectiveness and coordinating activities in the workplace are discussed. (Same as KNES 460)

**461 Occupational Health and Safety (3)**
Prerequisite: HESC 220 or KNES 202. Occupational health principles, including anticipation, recognition, evaluation and control of occupational hazards are presented to heighten awareness of workplace hazards on human health. Occupational health laws, regulations and methods of compliance.

**462 Environmental Toxicology and Health (3)**
Prerequisites: HESC 220 and completion of G.E. Category B.1. Fundamental toxicological concepts, including absorption, distribution, storage, biotransformation and elimination of toxicants, target organ toxicity and risk assessment. Toxicological effects of environmental agents such as pesticides, industrial chemicals, household chemicals and food contaminants.

**463 Air Pollution and Health (3)**

**465 Introduction to International Health (3)**
Prerequisite: HESC 220. Issues in international health, emphasizing core disease conditions. Leading causes of death and disability within an international context, as well as programmatic and policy responses to improve international health.

**467 Health Science Planning, Research and Evaluation (3)**
Prerequisites: HESC 220, 349, 401. Identification and application of concepts related to Health Science planning, research and evaluation. Analysis of planning and research designs applicable to health professionals, as well as tools for measurement of health status at individual, community, national levels.

**470 Transdisciplinary Perspective on HIV/AIDS (3)**
Prerequisites: HESC 220, 401. Multi-level complexity of the HIV/AIDS pandemic from the perspective of several disciplines within an overarching public health context. Analysis at the levels of individuals and physical, social-structural and cultural environments.

**475 Health in a Global Society (3)**
Prerequisite: HESC 220. Health effects of globalization. Health concerns arising from political, economic and social inter-connectedness and the need to find common solutions to ensure human health worldwide.

**494 Health Science Practicum (1)**
Corequisite: HESC 220. A requirement for Health Science majors offering an opportunity to plan, implement and evaluate special community-based projects under faculty supervision. May be repeated for six units maximum. Credit/No Credit only.

**495 Internship in Health Science (3)**
Prerequisites: HESC 220, all 400-level classes except 475, senior standing. Supervised observation and field experience in community health settings as conducted by government, voluntary, professional or industrial/corporate organizations. May be repeated one time.

**499 Independent Study (1-3)**
Prerequisites: complete minimum of 15 upper-division HESC courses and junior or senior standing. Topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a paper, project, comprehensive examination or performance. Application forms must be completed and approved prior to enrollment. Maximum of three units in any one semester; may be repeated once.
500 Issues in Public Health (3)
Prerequisite: admission to MPH program. Historical perspectives, definitions and discussion of current public health issues. Prepares public health professionals to draw on knowledge and skills from a variety of disciplines to define, critically assess, evaluate and resolve public health problems.

501 Advanced Methods in Epidemiology (3)
Prerequisite: admission to MPH program. Advanced application of epidemiologic procedures to the understanding of the occurrence and control of diseases and other health problems. Emphasizes study design, data quality, statistical analysis and causal inference.

508 Statistical Methods in Health Science (3)
Prerequisite: graduate standing. Statistical theory, data collection procedures, techniques for analysis and interpretation of data.

510 Research Methods in Health Science (3)
Prerequisites: graduate standing, HESC 508. Fundamental tools of research. Types of research, process of scientific inquiry and critical analysis of research. Topic selection and development of a research.

515 Advanced Environmental Health (3)
Prerequisite: admission to MPH program. Ecological impacts of human activities and the need to control factors that are harmful to human health. A framework is provided for investigation/management of health hazards. Principles of environmental health emphasize the relationships between population, natural resources, disease, toxicology and pollution.

520 Advanced Topics in Community Health (3)
Prerequisite: admission to MPH program. Theories, principles, planning and intervention strategies and evaluation approaches relevant to current community health promotion programs in the United States.

524 Public Health Administration (3)
Prerequisite: admission to MPH program. Principles, practices and skills essential to successful public health administration. U.S. health care system and factors that shape it. Public health services and administration, patterns of diseases, managed care, ethics and quality of care.

525 Alternative and Complementary Medicine (3)
Prerequisite: graduate standing. Role of alternative medicine in health behavior, disease, treatment, coping and healing. Its history, philosophy, concepts, development and how each of its disciplines fits in the larger scheme of Western medicine.

535 Program Planning and Evaluation (3)
Prerequisite: graduate standing in MPH or gerontology. Provides comprehensive theories and methods for planning and evaluating health promotion programs. Techniques for collecting and analyzing quantitative and qualitative data. Skills for measuring effectiveness of health promotion programs. (Same as GERO 535)

540 Advanced Study in Health Promotion and Disease Prevention (3)
Prerequisite: HESC 440 or equivalent. Psychological, social, ecological, economic and political theories relevant to the mission and process of health promotion. Application of behavioral change techniques and health education methodology to health promotion targeting individuals and whole communities.

545 Instructional Methodologies for Health Education (3)
Prerequisite: admission to MPH program. Develops ability to select and implement learner-centered instructional strategies designed to facilitate health behavior change for individuals in group settings. Instructional strategies appropriate for sensitive health-related content, the relationship of instructional strategies to behavioral outcomes and adult learning theories.

550 Graduate Internship (3-6)
Prerequisites: graduate status, consent of faculty sponsor, field supervisor, field coordinator and chair. On-the-job training experiences supervised by a fully trained practitioner. Minimum of 120 hours per semester plus conferences with faculty sponsor. Application forms must be completed and approved prior to enrollment. Upon completion of the internship, a written evaluation must be submitted. Not open to students on, or subject to, academic probation.

558 Advanced Study of School Health Education (3)
Prerequisite: enrollment in fifth-year program. Advanced course designed to facilitate delivery of comprehensive school health education. Strategies for personal, classroom and school safety. Application of state/federal laws pertaining to health and safety will be evaluated. One or more sections offered online.

597 Project (3)
Prerequisites: graduate classified status, successful completion of an oral presentation of the project and signature of all committee members on or before the census date of the semester in which the student elects to enroll. Directed independent inquiry. Not open to students on, or subject to, academic probation.

598 Thesis (3)
Prerequisites: graduate classified status, successful completion of an oral presentation of the thesis and signatures of all committee members on or before the census date of the semester in which the student elects to enroll. Student will select and have approved a research proposal, conduct the research and prepare a formal analysis and report. May be repeated. Not open to students on, or subject to, academic probation.

599 Graduate Independent Research (1-3)
Prerequisites: graduate status and consent of the faculty adviser and chair. Student research in a specific area of public health. Application forms must be completed and approved prior to enrollment. Upon completion of the research, a written report must be submitted. Not open to students on, or subject to, academic probation. Maximum of three units in any one semester; may be repeated once.