OCCUPATIONAL AND ENVIRONMENTAL SAFETY & HEALTH (SAFETY)

Courses

SAFETY 582 CONSTRUCTION SAFETY 3 Units
This course examines the practices and safety-related problems found in the construction industry. Construction methods and materials issues that impact construction safety programs are examined. Students will be introduced to specific construction safety hazards and countermeasures for correction through lectures and field experiences (or videos). Administrative and organizational issues that impact construction safety programs are examined. The course provides an overview of applicable OSHA standards (29 CFR 1926).
PREREQ: ADMISSION TO (COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM)

SAFETY 679 PRINCIPLES AND METHODS OF INDUSTRIAL HYGIENE 5 Units
An introduction to the science and art of anticipating, recognizing, evaluating, and controlling the chemical, physical, and biological agents that affect the health and safety of workers. The laboratory provides working knowledge and hands-on experience with equipment for recognizing, analyzing, and evaluating occupational health hazards in industry. One 2.5 hour lecture and one 2.5 hour lab per week.
PREREQ: ((ADMISSION TO MS ESH PROGRAM) OR (ADMISSION TO COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM)) AND (CHEM 102 OR EQUIVALENT)

SAFETY 683 OCCUPATIONAL SAFETY MANAGEMENT 3 Units
Emphasis will be on the organizational and administrational problems that relate to risk assessments, occupational accidents, worker compensation management, safety committees and employee safety training programs. The course is designed for students majoring in the business related areas and future safety professionals who desire to develop an understanding of these management problems as well as applicable solutions.
PREREQ: ECON 703, OR ECON 245 WITH A GRADE OF "C" OR BETTER, OR EQUIVALENT; MUST BE ADMITTED TO A COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM

SAFETY 685 FIRE PROTECTION/PREVENTION 3 Units
Control of fires through study of building construction to prevent fire spread, occupancy-hazard relationships, exposure to and from adjacent occupancies, lifesaving aspects, and the development of professional knowledge of flammable gases, liquids, combustible solids, dusts, chemicals, and explosives. Interpretation of appropriate codes will be covered.
PREREQ: CHEM 102 OR EQUIVALENT WITH A C OR BETTER; MUST BE ADMITTED TO A COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM

SAFETY 687 PRODUCT SAFETY 3 Units
An analysis of the trends of the product liability problem and the agencies regulating products. Special emphasis will be given to legal theories related to product liability and landmark litigation providing the basis for case law. A substantial portion of the course will be devoted to examining the elements of product safety programming.
PREREQ: MUST BE ADMITTED TO A COBE GRADUATE DEGREE PROGRAM

SAFETY 690 WORKSHOP *Repeatable* 1-6 Units
Varaible topics. See Schedule of Classes.

SAFETY 691 TRAVEL STUDY *Repeatable* 3 Units
Variable topics. Faculty-led courses abroad.

SAFETY 696 SPECIAL STUDIES *Repeatable* 1-3 Units
Variable topics. Group activity. Not offered regularly in the curriculum but offered on topics selected on the basis of timeliness, need, and interest, and generally in the format of regularly scheduled Catalog offerings. Repeatable to 6 credits in degree. A course which offers special topics in safety which are not regularly included in the curriculum.

SAFETY 701 RESEARCH METHODS IN ESH 3 Units
This course introduces key concepts and skill development in scientific inquiry in Environmental Safety & Health. The course covers: foundations for scientific inquiry, types of research methodology, validity and reliability (biases & error), how to search for and review research literature, basic understanding of statistical significance, and how to develop research question/hypotheses.
PREREQ: MUST BE ADMITTED TO THE MS ESH PROGRAM; OR MUST BE ADMITTED TO A COBE GRADUATE PROGRAM AND COMPLETED CHEM 102 AND ECON 703 OR THEIR EQUIVALENTS

SAFETY 712 DISASTER PLANNING AND RESPONSE 3 Units
This course provides an overview of the organizational processes of preparing for and responding to disasters, both natural and technological. The course will begin with emergency response planning and preparation, then move into emergency operations and incident management, and conclude with a module on incident investigation and root cause analysis.
PREREQ: MUST BE ADMITTED TO A COBE GRADUATE DEGREE PROGRAM

SAFETY 753 ENVIRONMENTAL LAW 3 Units
This course addresses current environmental issues of importance to ESH professionals and their associated regulations. Federal and State regulations having application to the current environmental issues will be emphasized.
PREREQ: MUST BE ADMITTED TO A COBE GRADUATE DEGREE PROGRAM

SAFETY 757 PRINCIPLES OF OCCUPATIONAL EPIDEMIOLOGY 3 Units
This course will introduce the principles of occupational epidemiology and discuss the application of these principles in the recognition, control and prevention of disease and injury. The course will review the etiology of various acute, chronic, infectious, occupational and environmental diseases.
PREREQ: MUST BE ADMITTED TO THE MS ESH PROGRAM; OR MUST BE ADMITTED TO A COBE GRADUATE PROGRAM AND COMPLETED ECON 703 OR ECON 245 OR EQUIVALENT WITH A GRADE OF C OR BETTER

SAFETY 779 ADVANCED TOPICS IN INDUSTRIAL HYGIENE 3 Units
The course will address industrial hygiene topics from the perspective of an EHS manager. Topics include adjustment of occupational exposure limits for various working conditions, alternative methods of assessment, emergency response, and comprehensive health and safety program management. Professional issues including leadership, risk communication, and ethics will also be discussed.
PREREQ: MUST BE ADMITTED TO THE MS ESH PROGRAM; OR MUST BE ADMITTED TO A COBE GRADUATE PROGRAM AND COMPLETED CHEM 102 AND ECON 703 OR THEIR EQUIVALENTS

SAFETY 780 PREVENTION AND CONTROL OF AIRBORNE HAZARDS IN THE WORKPLACE 3 Units
This course provides a discussion of the principles of preventing and controlling airborne contaminants in working and living environments. It deals with preventing occupational exposures to airborne contaminants, basic and advanced topics related to industrial ventilation for indoor workplaces, and personal respiratory protection. Topics include: behavior of airborne contaminants, exposure monitoring, ventilation, indoor air quality, respirator selection, and current topics.
PREREQ: MUST BE ADMITTED TO THE MS ESH PROGRAM; OR MUST BE ADMITTED TO A COBE GRADUATE PROGRAM AND COMPLETED CHEM 102 OR EQUIVALENT

SAFETY 783 ENVIRONMENTAL AND SAFETY MANAGEMENT 3 Units
Review foundational research literature on systems and risk-based approaches to ESH program design and management. Discuss national and international ESH management standards. Emphasis is given to data-driven efforts to improve EHS performance.
PREREQ: MUST BE ADMITTED TO THE MS ESH PROGRAM; OR MUST BE ADMITTED TO A COBE GRADUATE PROGRAM AND COMPLETED ECON 703 OR ECON 245 OR EQUIVALENT WITH A GRADE OF C OR BETTER

SAFETY 784 APPLIED ERGONOMICS 3 Units
Study of methods for job and workstation analysis aiming at the identification, characterization and mitigation of ergonomic hazards. Review of common musculoskeletal disorders, their etiology, epidemiology and prevention. Examination of high-risk industries and their specific needs. Selection and application of appropriate methods to different settings and industries.
PREREQ: MUST BE ADMITTED TO A COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM

SAFETY 787 SYSTEM SAFETY ANALYSIS 3 Units
Introduction to the system technique as applied to the recognition of potential accident situations in occupational environments. Concentration will be on the qualitative aspects of safety, utilizing numerous examples and problems.
PREREQ: MUST BE ADMITTED TO A COBE GRADUATE DEGREE OR CERTIFICATE PROGRAM

SAFETY 789 READINGS AND RESEARCH IN SAFETY 3 Units
Under the direction of a faculty member the student will examine current research and professional practices and apply that knowledge to an ESH problem. The course serves as the capstone experience and requires the successful completion of a research paper.
PREREQ: SAFETY 701; AND AT LEAST 18 UNITS MUST BE COMPLETED IN 700-LEVEL COURSES IN MS ESH PROGRAM; AND HAVE DEPARTMENT CONSENT

SAFETY 790 WORKSHOP 1-6 Units
Variable topics. Group activity oriented presentations emphasizing `hands on` and participatory instructional techniques.

SAFETY 793 PRACTICUM *Repeatable* 1-6 Units
Safety Studies Practicum.

SAFETY 794 SEMINAR 1-3 Units
Variable topics. Group activity. An advanced course of study in a defined subject matter area emphasizing a small group in intense study with a faculty member.

SAFETY 796 SPECIAL STUDIES 1-3 Units
Variable topics. Group activity. Not offered regularly in the curriculum but offered on topics selected on the basis of timeliness, need, and interest, and generally in the format of regularly scheduled Catalog offerings.

SAFETY 798 INDIVIDUAL STUDIES 1-3 Units
Study of a selected topic or topics under the direction of a faculty member.
PREREQ: CONSENT OF INSTRUCTOR

SAFETY 799 THESIS RESEARCH *Repeatable* 1-6 Units
Students must complete a Thesis Proposal Form in the Graduate Studies Office before registering for this course.