OHS - OCCUPATIONAL HEALTH SCIENCE (OHS)

OHS 301. Occupational Safety and Health. (3 Credits)
Principles of occupational health and safety covering standard
techniques for the recognition, evaluation and control of workplace
and environmental health hazards with emphasis on the role of regulatory
agencies, the Occupational Safety and Health Act of 1970, and workplace
safety and health regulations. (Fall, Summer)

OHS 310. Ergonomics, Human Factors and Workplace Design. (3 Credits)
This course studies the role of industrial ergonomics in preventing
cumulative trauma and improving occupational safety and health, work
organization and productivity. Topics include ergonomics risk factors,
cumulative trauma, physical and cognitive ergonomics, and principles of
workstation design. A term paper may be required. Prerequisite: OHS 301.
(Spring)

OHS 311. Occupational Safety I. (3 Credits)
Review of the voluntary compliance outreach program (OSHA 501) for
general industry. This program includes a review of the OSHAct; record
keeping and recording requirements; the use of the Code of Federal
Regulations and the application of safety standards. General principles of
occupational safety are discussed along with the regulatory issues. Term
projects may be required. Prerequisite: OHS 301. (Fall)

OHS 312. Occupational Safety II. (3 Credits)
Review of advanced principles of occupational safety and health related
to general industry and construction. Term projects may be required
Prerequisite: OHS 311. (Spring)

OHS 322. Occupational Health Problems. (3 Credits)
Review of issues concerning the practice of the occupational health
and safety profession. Study of health and safety hazards associated to
common industrial operations and processes with emphasis on hazard
analysis including qualitative and quantitative techniques. Field trip
and term project are required. Prerequisites: CH 112, 112L; OHS 301.
(Summer)

OHS 333. Occupational Toxicology. (3 Credits)
Review of human physiology and recognition of physiological effects
of toxic agents; TLV and LD concepts; use of medical technology;
omodes of contact and entry of toxic agents and dosage, time, and
concentration effects; recognition of toxic agents, occupational diseases,
and epidemiology. Term projects may be required. Requires concurrent
enrollment in BI 242 (unless already completed). Prerequisites: OHS 301,
MA 147. Prerequisite or Corequisite: BI 242. (Spring)

OHS 335. Physical Agents. (3 Credits)
Review of sources of energy in the workplace that may cause injury or
disease including noise, vibration, extremes in temperature, and ionizing
and non-ionizing radiation. Covers the potential health effects, methods
of exposure evaluation, and principles of control. Prerequisites: BI 241,
BI 242, PH 241, OHS 301. (Fall)

OHS 422. Control of Airborne Hazards. (3 Credits)
This course presents principles for hazard analysis and control of
industrial airborne contaminants. Emphasis is given to general ventilation
and local exhaust ventilation. A term paper may be required. Requires
concurrent enrollment in OHS 422L. Prerequisites: OHS 322, OHS 311.
Corequisite: OHS 422L. (Fall)

OHS 422L. Control of Airborne Hazards Laboratory. (1 Credit)
This laboratory presents principles of design and methods for the
evaluation of controls with emphasis given to general and local exhaust
ventilation. The use of fit testing techniques for personal respirators are
also illustrated. One 3-hour laboratory period per week. Field trips may
be required. Requires concurrent enrollment in OHS 422. Prerequisites:
OHS 322, OHS 311. Corequisite: OHS 422. (Fall)
Course Fees: $50

OHS 444. Occupational Air Sampling Methods. (3 Credits)
This course presents air sampling techniques used for the evaluation
of airborne gases, vapors, aerosols and biological agents found in
the workplace. Quantitative methods of frequent use in occupational
health are illustrated following an integrated approach that includes
components of sampling strategies, collection techniques, data analyses,
and exposure assessment principles. A term paper may be required.
Requires concurrent enrollment in OHS 444L unless already completed.
Prerequisites: OHS 333, OHS 311. (Spring)
Course Fees: $50

OHS 444L. Occupational Air Sampling Methods Laboratory. (1 Credit)
This course presents techniques and equipment used for collection
of airborne contaminants, including integrated and real time methods.
Experiments also focus on quality control including calibration
techniques, preparation of test atmospheres, and statistical methods
of data analysis. One 3-hour laboratory period per week. Field trips may
be required. Requires concurrent enrollment in OHS 444 unless already
completed. Prerequisites: OHS 333, OHS 311. (Spring)
Course Fees: $50

OHS 490. Management of Occupational Health and Safety Programs. (3
Credits)
This course presents the principles of managing occupational safety and
health including: assessing safety performance; exploration of corporate
culture; leadership, negotiation and communication skills; legal aspects;
ethical consideration; and best practices. Prerequisite: OHS 312. (Spring)

OHS 494. Internship in Occupational Health. (0 Credits)
Occupational Health Science students are required to complete
a pre-professional internship. The internship affords students the
opportunity to apply comprehensive and cumulative knowledge
acquired in occupational health and supporting courses to an industrial
operation. Internships involve 150 hours of direct contact work and
must be completed during one regular semester or a regular summer
term. Students must obtain approval from the instructor as to the
comprehensiveness of the proposed experience and also by the
submission of a project proposal prior to beginning the internship. In
special circumstances, a theoretical internship involving a case study
or industrial operation may be substituted in place of a pre-professional
internship with permission from the OHS Program Director. International
students must receive approval from the Office of International Affairs
prior to course registration. (Fall, Spring, Summer)

OHS 495. Senior Research. (1-3 Credits)
Independent research on individual projects under faculty supervision
for selected occupational health majors who have completed at least 84
credit hours with a minimum 3.0 overall scholastic average. Scheduled
work and conferences require a minimum average of four hours per week
per credit hour. Research may be off campus at a preapproved site with
credit depending on scope of project. May be repeated for a maximum
of three credit hours. Prerequisite: Departmental approval required. (Fall,
Spring, Summer)
Course Fees: $50
OHS 496. Senior Seminar in Occupational Health. (1 Credit)
Student will generate and present a detailed overview of their pre-
professional internship project with components of recognition,
evaluation and control. In addition, all students will be given a
comprehensive exit exam. Open to occupational health science majors
who have completed or are currently enrolled in OHS 494 and are in their
last semester of studies. (Fall, Spring)