

# OCCUPATIONAL SAFETY & ENV HLTH (OSEH)

**OSEH 120: 3 s.h.**

## **Fundamentals of Safety, Health, Environmental Issues (G3)**

Introduction to safety, health and environmental issues that impact people and workplaces. Includes the historical development of safety, the impact of accidents on society, a legislative overview and basic principles of personal risk assessment and management.

**OSEH 120H: 3 s.h.**

**Hon: Fund of Safety, Hlth, Env I (G3)**

**OSEH 179: 3 s.h.**

## **Experimental**

Experimental

**OSEH 220: 3 s.h.**

## **Legal Aspects Environmental Safety**

Legal issues relative to occupational safety and environmental health. Includes federal and state legislation, resolution of legal and ethical challenges, product safety and professional liability.

**OSEH 221: 3 s.h.**

## **Industrial Fire Prevention, Protection and Control**

Basic principles, chemistry of fire, fire hazards determination, workforce notification, alarm and sprinkler systems, protective equipment, evacuation procedures and fire fighting methods.

**OSEH 221H: 3 s.h.**

**Hon: Fire Prevention**

**OSEH 222: 3 s.h.**

## **Construction Safety**

Methodology for the anticipation, recognition, evaluation and control of safety and health hazards associated with construction industries. Topics include engineering principles and risks associated with multiple types of facilities and infrastructures. Prereq: OSEH 120

**OSEH 279: 3 s.h.**

## **Experimental**

Experimental

**OSEH 300: 3-12 s.h.**

## **Co-Op Ed Experience in OSEH**

Co-Op Ed Experience in OSEH

**OSEH 320: 3 s.h.**

## **Safety Engineering Principles**

Methods for the identification and analysis of industrial hazards. Emphasis on application of basic safety engineering principles for the control of losses in an industrial environment. Prereq: OSEH 120.

**OSEH 320H: 3 s.h.**

**Hon: Safety Engineering Princi**

**OSEH 321: 4 s.h.**

## **Environmental & Industrial Hygiene I - Chemical and Biological Hazards**

Course covers the anticipation, recognition, evaluation, and control of chemical and biological hazards in the workplace. Topics include: toxicology, gases, vapors, solvents, particulate matters, respiratory protection, fit testing, air sampling protocols and strategies, microbial and biological hazards, and government regulations. The challenging concerns of health hazards related to nano size particles in the workplace is addressed. Prereq: OSEH 120, CHEM 104, MATH 101 or Math 151 or Math 160 or Math 161, or permission of instructor.

**OSEH 323: 3 s.h.**

## **Human Factors in OSEH**

Ergonomic study of interaction between people and their work. Emphasis on the application of biological sciences to engineering principles in an effort to optimize efficiency, productivity and safety. Topics include anthropometrics, biomechanics, design principles, physiological and cognitive capabilities and task-evaluation techniques. Prereq: OSEH 120 or permission of instructor.

**OSEH 333: 3 s.h.**

## **Introduction to System Safety**

Qualitative and quantitative system safety methods used to analyze and control risk. Includes a variety of analytical engineering techniques that are applied to practical system-analysis problems. Prereq: OSEH 320 and MATH 130.

**OSEH 379: 3 s.h.**

## **Experimental**

Experimental

**OSEH 400: 3-12 s.h.**

## **Co-Op Ed Experience in OSEH**

Co-Op Ed Experience in OSEH

**OSEH 410: 3 s.h.**

## **Safety and Hygiene Management**

Principles and practices of occupational safety and environmental health management. Includes the development of safety objectives and policy, evaluation and management of risk, and program implementation and evaluation. Offered annually. Prereq: OSEH 220 and 320 or permission of instructor.

**OSEH 422: 4 s.h.**

## **Environmental & Industrial Health II - Physical Hazards**

Fundamental theory and methods used in the anticipation, recognition, evaluation and control of the physical hazards of noise, ionizing/nonionizing radiation, illumination, thermal stress, local exhaust ventilation, and dilution ventilation. Covers regulatory standards and control methods. Prereq: OSEH 120, MATH 101 or 151 or 160 or 161 and PHYS 103 or 104 or 131, or permission of instructor.

**OSEH 430: 1 s.h.**

## **Topics in Occupational Safety & Environmental Health**

A review of industry specific hazards and operations related to Occupational Safety and Environmental Health. Topics vary according to the needs and interest of students involved. The course is intended to build on basic safety management concepts and an understanding of how these concepts are applied in specific sectors. Challenges and specific regulatory requirements, which may be unique to the business sectors covered, will be included. Emphasis is placed on leadership and mentorship of OSEH students. Reserved for Senior OSEH majors or by instructor permission.

**OSEH 435: 3 s.h.**

## **Environmental Health**

Environmental health review of scientific and technical foundations, with an examination of problems, regulations and control strategies. Covers identification of pollution sources, evaluation strategies, engineering controls, federal and state regulatory and permitting processes. Emphasis is on practical information needed by environmental health professionals to resolve issues affecting industry. Prereq: OSEH 321 or ENVI 330 or permission of instructor.

**OEH 440: 6,12 s.h.**

**Internship**

Students work full-time for nine weeks or more under the direct supervision of an OEH professional in industry, insurance, government agencies or other approved location. University supervision, seminars and evaluation are provided. Students experience problems, practices and principles in the management of occupational safety and/or industrial hygiene programs. To be taken twice, concurrently or consecutively, with increased work and research responsibilities. Prereq: senior OEH majors and permission of OEH coordinator.

**OEH 479: 1-6 s.h.**

**Experimental**

Experimental

**OEH 489: 1-4 s.h.**

**Honors Course**

Preparation of honors thesis proposal. For the definition of honors course and student eligibility, refer to the departmental honors section of this catalog. EDTE, AETM and OEH majors may enroll in the Department of Applied Engineering, Safety & Technology honors program. Contact the department office for guidelines and an application.

**OEH 499: 1-3 s.h.**

**Departmental Honors**