

## **ENSC 2703 Fundamentals of Industrial Hygiene**

**Catalog Description:** This course is designed to introduce students to industrial hygiene as it relates to the anticipation, recognition, evaluation, and control of hazards in the workplace. Emphasis is on chemical and physical hazards in occupationally related diseases. Historical basis and current legislation are discussed. In addition, the principles of epidemiology, industrial toxicology, exposure standards, and respiratory protection are addressed.

**Prerequisite:** There are no prerequisites for the course.

**Credit hours/ Contact hours/ Load hours:** 3/3/3

**Target Audience/Transferability:** Successful completion of this course should prepare students for successful further study in environmental and regulatory science. This is a required course for the Technical Certificate in Environmental & Regulatory Science and the Environmental & Regulatory Science AAS Degree. ENSC 2703 will transfer to the University of Arkansas at Fayetteville in the Environmental, Soil, and Water Science as elective credit. ENSC 2703 will also transfer to Southern Missouri, University and Northeastern Oklahoma State University at Tahlequah, Oklahoma.

**Student Learning Outcomes:** Students completing this course will:

- Describe the roles of the industrial hygienist in the safety, health, and environmental fields.
- Recognize, evaluate, and control hazards in the workplace.
- Prepare concise reports that summarize, interpret and discuss sampling results; state conclusions; and makes applicable recommendations.
- Identify web based information sources to further their understanding of the principles learned to comprehend, evaluate and solve problems of industrial hygiene nature.

### **Topics:**

- Introduction to Industrial Hygiene
- Toxicology Review
- Occupational Health Standards
- Airborne Hazards
- Sampling for Airborne Contaminants
- Indoor Air Quality
- Controlling Airborne Hazards
- Occupational Skin Disorders
- Occupational Noise Exposures
- Ionizing Radiation
- Nonionizing Radiation
- Temperature Extremes
- Selection and Use of Respirators

**Forms of Assessment:** None