

HSE-285 INDUSTRIAL HYGIENE

3 Credit Hours

Prerequisite: CHM-122 Introduction to General Chemistry, CHM-132 Introduction to Organic and Biochemistry, and HSE-100 Occupational Safety

The Industrial Hygiene course will give the necessary information to the students to allow them to establish and maintain programs, collect and analyze data to identify problems, and develop methods and procedures to reduce or eliminate illness and incidents. Examples of topics covered in this course include: basics of toxicology, problems arising from skin contact or inhalation of chemicals in the workplace, the detection and control of airborne contaminants and ventilation, injury from causes such as sound, radiation, heat, biological agents, and accidents, anatomy, and physiology.

Course Objectives:

1. Classify toxic materials based on physical states and potential adverse interactions.
2. Calculate workplace exposures.
3. Students will be able to recognize different types of health hazards such as, chemical, physical, biological, ergonomic and anatomy, physiology and pathology.
4. After recognition of hazards the students will learn how to evaluate the hazard and what affect it will have on workers.
5. All hazards recognized must be controlled by a number of different methodologies (Engineering, Administrative and PPE).
6. Students will understand the four different routes of entry (inhalation, ingestion, absorption and injection).