

Course Outline
OSHT 161
Introduction to Industrial Hygiene
Credit Hours: 3

The Community College of Baltimore County

Description

Introduction to Industrial Hygiene

Introduces the fundamentals of industrial hygiene. Focuses on problems of industrial health, hygiene and sanitation, and hazard recognition and control; also studies ergonomics in the workplace.

Learning Objectives

- Students will develop a basic understanding of the principles of industrial hygiene.
- Students will gain a strong foundation in the principles of industrial hygiene so that the student can successfully pursue further studies in the field of industrial hygiene.
- Students will gain an understanding and appreciation of the present regulatory climate and existing standards and regulations that impact safety and health programs in the workplace.

Performance Objectives

- Students will be able to analyze and interpret industrial hygiene literature and data.
- Students will be able to effectively communicate with professional peers regarding industrial hygiene matters.
- Students will be able to effectively integrate industrial hygiene principles into the management of occupational safety and health programs in their workplaces.
- Students will be able to recognize potential health hazards in the occupational environment.
- Students will be able to evaluate the extent of health hazards and recommend appropriate control measures to implement to protect the health of workers.
- Students will be able to design a basic air sampling strategy to measure airborne contaminants.
- Students will be able to design a laboratory safety program to comply with OSHA's laboratory standard.
- Students will be able to apply basic toxicological principals to the identification and control of occupational disease causing risks.
- Students will be able to evaluate basic components of industrial ventilation and make recommendations for improvements.

Major Topics

- Program management
- Organ systems and industrial disease
- Gases, vapors, and particles
- Toxicology and exposure standards
- OSHA laboratory standard
- Dermatoses and biological hazards
- Personal protective equipment
- Heat stress
- Evaluation and control of hazards
- Air sampling
- Industrial ventilation
- Industrial noise

- Non-ionizing radiation and lasers
- Ionizing radiation

Course Requirements

- Two assignments, each worth 5% of the final grade.
- Two quizzes each worth 5% of the final grade.
- One mid-term exam worth 33% of the final grade.
- One final exam worth 33% of the final grade.
- One term project worth 14% of the final grade.

Other Course Information

This course is a prerequisite for OSH 161, Advanced Industrial Hygiene. This course is required for the A.A.S. in occupational safety and health and is an elective for the certificate program.