

Common Course Outline
OSHT 266
Applied Industrial Hygiene
4 Credits

Community College of Baltimore County

Description

OSHT 266 – 4 Credits – Applied Industrial Hygiene studies the concepts of industrial hygiene and focuses on principles and evaluation techniques, including select instrumentation for identifying problems in environmental control. The course provides familiarity and practice with testing procedures and instrumentation used in the field.

4 Credits: 3 lecture hours and 2 laboratory hours

Prerequisites: ACLT 052 or ACLT 053; and OSHT 161

Overall Course Objectives

Upon successful completion of this course students will be able to:

1. evaluate industrial hygiene hazards and propose controls in the workplace;
2. assess basic indoor air quality hazards and formulate corrective actions;
3. categorize occupations for risk of exposure to bloodborne pathogens, and design and integrate bloodborne pathogen control programs;
4. practice basic ergonomic workplace evaluations;
5. recommend appropriate personal protective equipment for control of occupational exposure to hazards;
6. assess the effectiveness of selected personal protective equipment;
7. determine appropriate laboratories for industrial hygiene sample analysis;
8. select appropriate monitoring instruments for specific monitoring applications;
9. operate monitoring equipment and collect data;
10. calculate monitoring results; and
11. evaluate findings and recommend appropriate action based on data.

Major Topics

- I. Math review
- II. Toxicology
- III. Management and auditing of the industrial hygiene program
- IV. Laboratory selection
- V. Risk assessment
- VI. Occupational exposure assessment strategies
- VII. Indoor air quality
- VIII. Bloodborne pathogens

- IX. Ergonomics
- X. Physical hazards
- XI. Introduction to human anatomy
- XII. Personal protective equipment
- XIII. Ethics
- XIV. Integrated air samples:
 - A. Introduction to equipment
 - B. Procedures
- XV. Active and passive sampling
- XVI. Direct reading instruments
- XVII. Laboratory Practice
 - A. Oxygen
 - B. Volatiles, Organics
 - C. Particulates
 - D. Mold
 - E. Vibration
 - F. Noise
 - G. Heat

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

- Mid-term exam
- Comprehensive final exam
- Independent oral presentation
- A minimum of 3 homework assignments
- A minimum of two laboratory quizzes
- A minimum of five laboratory assignments
- Attendance and participation

Written Assignments: Students are required to use appropriate academic resources.

Other Course Information

This course is an OSH core course.

This course is taught in a traditional classroom format.

This course may not be offered in all semesters. Refer to the registration schedule.