



OCCUPATIONAL HEALTH & SAFETY

SAF 200-3

**COURSE NAME**

**COURSE NUMBER**

TOTAL CREDIT HOURS: 48

PREREQUISITE^): Admission to Environmental Engineering Program

**I. PHILOSOPHY/GOALS:**

SAF200-3 is an introductory level course taught to students in Environmental Engineering. The course looks at the Provincial Legislation and related regulations that apply to workers. Safe work practices will be studied as they apply to sampling, trenching and construction. Chemical and physical hazards encountered in the workplace are also included in this subject material.

**II. TOPICS TO BE COVERED:**

UNIT 1 INTRODUCTION TO OCCUPATIONAL HEALTH & SAFETY.

- 8 hr
- differentiate between Health & Safety
  - role of Industrial Hygiene
  - sampling & monitoring
  - Safety Audit

UNIT II LEGISLATION AND RELATED REGULATIONS

- 10 hr
- Occupational Health & Safety Act
  - Regulations for Industrial, Construction, Mining
  - Workplace Hazardous Material Information WHMIS
  - Confined Space Entry
  - Regulations for designated substances
  - MSDS

UNIT III CHEMICAL & PHYSICAL HAZARDS

- 10 hr
- Identification of Chemical Hazards, Hazard Rating NFPA
  - Toxicity as Hazard, Acute as chronic TLV, STEL
  - Evaluation of chemical hazards
  - Fire & explosion, LEL, UEL
  - Identification of physical hazards

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**II. TOPICS TO BE COVERED:** (cont'd)

UNIT IV SAFE WORK PRACTICES

- 10 hr
- Confined Space Entry (class A, B, C)
  - Ventilation
  - Personal Protective Equipment
    - clothing
    - respirators
    - hearing
  - Trenching

UNIT V RESPIRATORY PROTECTION I

- 10 hr
- Identification of Hazard
  - Hazard assessment
  - Hazard Control
  - Respiratory Selection
  - Worker Training
  - Maintenance Procedures
  - Medical Surveillance
  - Program Evaluation

VIDEO

- Respirators - Norton (18min)
- Air Purifying Respirators (19min)
- Atmosphere Supplying Respirators (19min)
- Respirators for Health & Safety (10min)

RESPIRATORY PROTECTION II

- Types of respirators
- Limitations
- Protection Factors
- Case histories

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**III. EVALUATION METHODS:**

The final grade is the sum of all assignments, tests and final examination.

**GRADING:**

90% > A+

80% > A

70% > B

60% > C

60% < R

**IV. REQUIRED STUDENT RESOURCES:**

Fundamentals of Industrial Hygiene by Julian B. Olishifski; National Safety Council

Occupational Health & Safety Act and WHMIS Regulation.

Regulations for Industrial Establishment.

Confined space Hazards and Control Reference Manual IAPA.

\* A guide to the Occupational Health and Safety Act

**V. SPECIAL NOTES:**

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.