



ENGG*1070 Occupational Health and Safety -

DRAFT

Fall 2017

Sections(s): C01

School of Engineering

Credit Weight: 0.25

Version 1.00 - September 08, 2017

1 Course Details

1.1 Calendar Description

This course presents the legal implications of occupational health and safety as expressed in the Environmental and Occupational Health and Safety Act, and exposes students to methodologies designed to ensure compliance with the Act. The course stresses safety initiatives and deals with specific safety issues such as noise levels, biosafety, hazardous waste management, safety in the workplace, radiation safety and industrial safety.

Restriction(s): Registration in the B.Eng. Program

1.2 Timetable

Lectures:

Mon 11:30am - 12:20pm MACN 105

Wed 11:30am - 12:20pm MACN 105

Lecture Schedule:

| Lecture | Lecture Topics | Textbook | Learning Objectives |
|-------------|--------------------------|------------|---------------------|
| Mon Sept 11 | Introduction | Ch 1, 2, 3 | 1, 3 |
| Wed Sept 13 | OHS Act | extra | 1, 2, 3 |
| Mon Sept 18 | Hazards in the Workplace | Ch 9 | 3, 4, 5, 6, 7 |
| Wed Sept 20 | Tools and Machines | Ch 13 | 4, 5, 6, 7 |
| Mon Sept 25 | Working at Heights | extra | 4, 5, 6, 7 |
| Wed Sept 27 | Electrical Safety | Ch 12 | 4, 5, 6, 7 |
| Mon Oct 2 | Transportation Safety | Ch 14 | 4, 5, 6, 7 |
| Wed Oct 4 | Fire Protection | Ch 16 | 4, 5, 6, 7 |
| Wed Oct 11 | Heat & Cold | Ch 18 | 4, 5, 6, 7 |

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|------------|------------------------------|-------|------------|
| Mon Oct 16 | Non-Ionizing Radiation | Ch 21 | 4, 5, 6, 7 |
| Wed Oct 18 | Ionizing Radiation | Ch 22 | 4, 5, 6, 7 |
| Mon Oct 23 | Midterm | N/A | - |
| Wed Oct 25 | Noise | Ch 23 | 4, 5, 6, 7 |
| Mon Oct 30 | BioHazards | Ch 26 | 4, 5, 6, 7 |
| Wed Nov 1 | Hazardous Waste | Ch 27 | 4, 5, 6, 7 |
| Mon Nov 6 | Ventilation | Ch 25 | 4, 5, 6, 7 |
| Wed Nov 8 | Chemicals | Ch 24 | 4, 5, 6, 7 |
| Mon Nov 13 | Asbestos | extra | 4, 5, 6, 7 |
| Wed Nov 15 | Confined & Restricted Spaces | extra | 4, 5, 6, 7 |
| Mon Nov 20 | PPE | Ch 28 | 4, 5, 6, 7 |
| Wed Nov 22 | Psychosocial Hazards | extra | 4, 5, 6, 7 |
| Mon Nov 27 | Safety Inspection | extra | 3 |
| Wed Nov 29 | Ergonomics | Ch 33 | 4, 5, 6, 7 |
| | Final Review | N/A | - |

1.3 Final Exam

Tue Dec 5, 11:30 am - 1:30 pm, Room TBA on Webadvisor

2 Instructional Support

Instructor: Ahmed Mahmood, Ph.D., EIT
Office: THRN 2361
Email: amahmood@uoguelph.ca
Office hours: TBA on Courselink or by appointment

3 Learning Resources

- CourseWebsite

Course material, news, announcements, and grades will be regularly posted to the ENGG*1070 Courselink site. You are responsible for checking the site regularly.

- Required Resources

Brauer, R., Safety and Health for Engineers, 3th edition, Wiley, 2016.

- Resources on Reserve

Brauer, R., Safety and Health for Engineers, 1th edition, Van Nostrand Reinhold, 1990.

- Additional Resources

1. Lecture Information: All the lecture notes are posted on CourseLink. The lecture is the primary source of information for the course and certain topics will be more elaborated than presented in the text book. Discussion and Examples that may not be available from the text book and posted lecture slides will also be presented during the lecture time to help you further understand the subject matter of the various topics. As such it is highly recommended that you attend the lectures.

2. Miscellaneous Information: Other information related to the course will be posted on the web page.

4 Learning Outcomes

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. This course will provide an introduction to occupational health and safety legislation, workplace hazards, and the administration of organizational health and safety practices. At the successful completion of this course, the student will have demonstrated the ability to:
 1. Explain the importance of occupational health and safety.
 2. Demonstrate an understanding of occupational health and safety legislation and standards in Ontario.
 3. Understand the duties and responsibilities of the workplace parties in reporting and investigating incidents.
 4. Identify, categorize, and discuss the various sources of workplace hazards and determine how to mitigate these hazards through engineering controls, administrative controls and personal protective equipment.
 5. Analyze and illustrate the factors that contributing to incidents.
 6. Explain methods and controls to prevent specific occupational safety and health calamities.
 7. Compare the strategies and methods used to evaluate occupational safety and health.

5 Teaching and Learning Activities

6 Assessments

Dates and Distribution:

Assignments: 8%
Oct 16, CourseLink
Nov 13, CourseLink

Quizzes: 8%
Oct 11, in class
Nov 15, in class

Participation: 8%
0.5 mark each lecture

Midterm: 16%
Oct 23 11:30am - 12:20pm, in class

Final Exam: 60%
Tue Dec 5, 11:30 am - 1:30 pm, Room TBA on Webadvisor

Course Grading Policies:

Missed Assessments: If you are unable to meet an in-course requirement due to medical, psychological, or compassionate reasons, please email the course instructor. See the undergraduate calendar for information on regulations and procedures for Academic Consideration:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Accommodation of Religious Obligations: If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements. See the undergraduate calendar for information on regulations and procedures for Academic Consideration of Religious Obligations:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomrelig.shtml>

Missed midterm: If you miss the midterm due to grounds for granting academic consideration or religious accommodation, the weight of the missed midterm will be added to the final exam weight. There will be no makeup midterm test.

Late Assignments: Late submissions of assignments will not be accepted.

Quizzes: If you miss a quiz grade due to grounds for granting academic consideration or religious accommodation, the weight of the missed midterm will be. The quiz weighting will be

added to the next quiz or to the final exam weight.

Passing Grade: As per University policy, the minimum passing grade is 50%.

7 School of Engineering Statements

7.1 Instructor's Role and Responsibility to Students

The instructor's role is to develop and deliver course material in ways that facilitate learning for a variety of students. Selected lecture notes will be made available to students on Courselink but these are not intended to be stand-alone course notes. Some written lecture notes will be presented only in class. During lectures, the instructor will expand and explain the content of notes and provide example problems that supplement posted notes. Scheduled classes will be the principal venue to provide information and feedback for tests and labs.

7.2 Students' Learning Responsibilities

Students are expected to take advantage of the learning opportunities provided during lectures and lab sessions. Students, especially those having difficulty with the course content, should also make use of other resources recommended by the instructor. Students who do (or may) fall behind due to illness, work, or extra-curricular activities are advised to keep the instructor informed. This will allow the instructor to recommend extra resources in a timely manner and/or provide consideration if appropriate.

7.3 Lab Safety

Safety is critically important to the School and is the responsibility of all members of the School: faculty, staff and students. As a student in a lab course you are responsible for taking all reasonable safety precautions and following the lab safety rules specific to the lab you are working in. In addition, you are responsible for reporting all safety issues to the laboratory supervisor, GTA or faculty responsible.

8 University Statements

8.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

8.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The regulations and procedures for [Academic Consideration](#) are detailed in the Undergraduate Calendar.

8.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

8.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

8.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance, and not later than the 40th Class Day.

More information: www.uoguelph.ca/sas

8.6 Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar.

8.7 Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

8.8 Resources

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

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