ENGG*1070 Occupational Health and Safety
Winter 2017

UNIVERSITY of GUELPH

School of Engineering

(Revision 1.0: Jan 3, 2017)

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1 Instructional Support

1.1 Instructor

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

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2 Learning Resources

2.1 Course Website

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

2.2 Required Resources

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

2.3 Resources on Reserve

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

2.4 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.

2.5 Communication & Email Policy

Please use lectures sessions as your main opportunity to ask questions about the course. Major announcements will be posted to the Courselink site. **It is your responsibility to check the course website regularly.** As per university regulations, all students are required to check their `mail.uoguelph.ca` e-mail account regularly: e-mail is the official route of communication between the University and its student.

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3 ASSESSMENT

3.1 Dates and Distribution

Assignments: 10%
Feb 8, CourseLink
Mar 17, CourseLink

Quizzes: 10%
Feb 1, in class
Mar 15, in class

Midterm: 20%
Feb 15 12:30-1:20, in class

Final Exam: 60%
Thu April 13, 7:00 pm - 9:00 pm, Room TBA on Webadvisor

3.2 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%.

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4 AIMS, OBJECTIVES & GRADUATE ATTRIBUTES

4.1 Calendar Description

This course presents the legal implications of occupational health and safety as expressed in the 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, occupational hygiene, risk assessments and industrial safety.
Prerequisite(s): None

4.2 Learning Objectives

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.

4.3 Graduate Attributes

Successfully completing this course will contribute to the following CEAB Graduate Attributes:

Graduate Attribute	Learning Objectives	Assessment
1. Knowledge Base for Engineering	-	-
2. Problem Analysis	-	-
3. Investigation	-	-
4. Design	-	-
5. Use of Engineering Tools	-	-
6. Communication	-	-
7. Individual and Teamwork	-	-
8. Professionalism	1-7	-
9. Impact of Engineering on Society and the Environment	4,6	-
10. Ethics and Equity	-	-
11. Environment, Society, Business, & Project Management	-	-
12. Life-Long Learning	-	-

4.4 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. Only selected lecture notes will be made available to students on Courselink since much of the course content is best suited to mathematical derivations and examples worked out on the white/black board. Further, the textbook contains more detailed coverage than can be covered in lectures. During lectures, the instructor will expand and explain the content of course material and provide example problems that supplement the textbook coverage. Scheduled classes will be the principal venue to provide information and feedback for tests and quizzes.

4.5 Students' Learning Responsibilities

Students are expected to take advantage of the learning opportunities provided during lectures, labs, and textbook readings. 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.

5 TEACHING AND LEARNING ACTIVITIES

5.1 Timetable

Lectures:

Wed	12:30 - 1:20	MCLN 102
Fri	12:30 - 1:20	MCLN 102

5.2 Lecture Schedule

Lecture	Lecture Topics	Textbook	Learning Objectives
Wed Jan 11	Introduction	Ch 1, 2, 3	1, 3
Fri Jan 13	Occupational Health and Safety Act	extra	1, 2, 3
Wed Jan 18	Hazards in the Workplace	extra	3, 4, 5, 6, 7
Fri Jan 20	Tools and Machines	Ch 13	4, 5, 6, 7
Wed Jan 25	Electrical Safety	Ch 12	4, 5, 6, 7
Fri Jan 27	Fire Protection	Ch 16	4, 5, 6, 7
Wed Feb 1	Heat & Cold	Ch 18	4, 5, 6, 7
Fri Feb 3	Transportation Safety	Ch 14	4, 5, 6, 7
Wed Feb 8	Working at Heights	extra	4, 5, 6, 7
Fri Feb 10	Confined Spaces & Restricted Spaces	extra	4, 5, 6, 7
Wed Feb 15	Midterm	N/A	-
Fri Feb 17	Noise	Ch 23	4, 5, 6, 7
Reading Week			
Wed Mar 1	BioHazards	Ch 26	4, 5, 6, 7
Fri Mar 3	Hazardous Waste	Ch 27	4, 5, 6, 7
Wed Mar 8	Non-Ionizing Radiation	Ch 21	4, 5, 6, 7
Fri Mar 10	Ionizing Radiation	Ch 22	4, 5, 6, 7
Wed Mar 15	Ventilation	Ch 25	4, 5, 6, 7
Fri Mar 17	Asbestos	extra	4, 5, 6, 7
Mon Mar 22	Chemicals	Ch 24	4, 5, 6, 7
Fri Mar 24	Pressure	Ch 19	4, 5, 6, 7
Mon Mar 29	Personal Protective Equipment	Ch 28	4, 5, 6, 7
Fri Mar 31	Psychosocial Hazards	extra	4, 5, 6, 7
Mon Apr 5	Safety Inspection	extra	3
Fri Apr 7	Final Review	N/A	-

5.3 Other Important Dates

Monday January 9: First day of class

Monday, February 20 - Friday, February 24 2017: Winter Break

Friday, March 10: Drop Date - 40th class

Friday, April 7: Last day of classes

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.

6.1 Resources

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:
http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml

A tutorial on Academic Misconduct produced by the Learning Commons can be found at:
http://www.academicintegrity.uoguelph.ca/

Please also review the section on Academic Misconduct in your Engineering Program Guide.

The School of Engineering has adopted a Code of Ethics that can be found at:
http://www.uoguelph.ca/engineering/undergrad-counselling-ethics

7 Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability for a short-term disability should contact the Student Accessibility Services (SAS) as soon as possible

For more information, contact SAS at 519-824-4120 ext. 56208, email csd@uoguelph.ca or through their website: http://www.uoguelph.ca/csd/

8 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, classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9 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:
http://www.uoguelph.ca/registrar/calendars/index.cfm?index

APPENDIX A: UNDERGRADUATE DEGREE REGULATIONS AND PROCEDURES

"Section VIII. Undergraduate Degree Regulations and Procedures" from the *University of Guelph 2015-2106 Undergraduate Academic Calendar*:

http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/index.shtml