

ENGG*6090-04,10 - Special Topics in Engineering
Engineering Leadership
Winter 2019



[School of Engineering](#)
(Revision – December 10, 2018)

1 INSTRUCTOR

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Office hours: By appointment

2 LEARNING RESOURCES

2.1 Course Website

Course material, news, announcements, and grades will be regularly posted to the ENGG*6090 – Engineering Leadership Courselink site. You are responsible for checking the site regularly.

2.2 Required Resources

Kouzes, James M. and Posner, Barry Z., 2017. *The Leadership Challenge: How to make extraordinary things happen in organizations, 6th edition*. Jossey-Bass, A Wiley Imprint, 978-1-119-27897-9.

Maxwell, John C., 2013. *How Successful People Lead: Taking your influence to the next level*. Centre Street, 978-1-59995-362-5.

2.3 Recommended Resources

Readings as assigned

2.4 Additional Resources

Lecture Information: Lecture notes will be posted on the web page. These notes are meant to supplement lectures, and are not complete on their own.

Assignments: Download and complete the assignments as they are presented on the course website.

Miscellaneous Information: Other information related to Engineering Leadership may also be posted on the web page.

2.5 Communication & Email Policy

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

3 ASSESSMENT

3.1 Dates and Distribution

| | |
|---------------------|---|
| Assignments: | 30% – Assignments (6 @ 5% each) |
| Discussion: | 15% - Class and group discussions |
| Journal: | 20% - Reflection Journal – Week 5 (8%) and Week 10 (12%) submissions. |
| Project: | 35% – Interactive Project and Presentation activity focused on leadership (5% - proposal – Week 3) (5% - progress report- Week 6) (10% presentation and presentation evaluation – Week 12) (15% - final report – Week 12) |
| Total Grade | <u>100%</u> |

Note: Student's will receive some assessment results before the 40th class day.

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. Please see below for specific details and consult the undergraduate calendar for information on regulations and procedures for Academic Consideration:

https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1498.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 Accommodation of Religious Obligations:

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

Passing grade: Students must obtain a grade of 65% or higher in order to pass the course.

Late Submissions: No late submissions will be accepted.

Attendance: This course includes significant active learning components and requires class involvement and demonstration of personal leadership. Attendance is important and the grade will be impacted by your active participation in exercises, contribution to discussions, listening skills and professionalism.

4 AIMS, OBJECTIVES

4.1 Course Description

“A course of directed study involving selected readings and analyses in developing knowledge areas which are applicable to several of the engineering disciplines in the School of Engineering.”

This is a non-technical course that introduces engineering students to the general concepts, theory and practice of leadership at a personal and an organization level. Leadership principles will also be presented in the context of the engineering profession and practice. Students will actively participate in understanding and developing their own leadership approach through a variety of readings, exercises and projects.

4.2 Course Aims

This course is designed to give engineers a foundational understanding of the concepts of leadership through both theoretical and experiential learning, and to provide an opportunity to relate these concepts to the practices and situations common to engineers.

The main goals of the course are for the student to:

1. Develop an understanding of the nature of leadership
2. Develop an understanding of leadership in the context of engineering.
3. Develop a personal understanding of how leadership relates to the individual student.
4. Develop confidence in taking on leadership roles by participating in a number of exercises and projects.

4.3 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Describe leadership concepts and principles
2. Evaluate leadership styles
3. Apply leadership principles in multiple contexts
4. Develop a personal leadership philosophy
5. Identify and act upon leadership opportunities
6. Appreciate the role of ethics and integrity in leadership
7. Discuss leadership in the engineering context

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. Selected lecture notes will be made available to students on Courselink/D2L but these are not intended to be stand-alone course notes. 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 project.

4.5 Students' Learning Responsibilities

Students are expected to take advantage of the learning opportunities provided during lectures and tutorials. 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.

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

Recording of Materials: Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer

4.6 Relationship to Other Courses

This is a stand-alone course available to graduate level students

5 TEACHING AND LEARNING ACTIVITIES

5.1 Timetable

Lectures :

Section 04

| | | |
|-----------|-------------------|----------|
| Tuesdays | 10:00 -11:20 a.m. | MCKN 310 |
| Thursdays | 10:00 -11:20 a.m. | MCKN 310 |

Section 10

| | | |
|-----------|------------------|----------|
| Tuesdays | 2:30 – 3:50 p.m. | MCKN 304 |
| Thursdays | 2:30 – 3:50 p.m. | MCKN 304 |

Note: It is required that students attend only their assigned section, as much of the work is group based and continues from session to session.

5.2 Lecture Schedule

| Lectures | Lecture Topics | Learning Objectives |
|-----------------|--------------------------------------|----------------------------|
| Week 1 | Introduction to Leadership | 1 |
| Weeks 2–7 | Personal Leadership | 1,2,3,4,5,6 |
| Weeks 7-8 | Leadership and Engineering | 2,6,7 |
| Week 9 | Intercultural Leadership | 2,3,6 |
| Weeks 10,11 | Organizational Leadership Frameworks | 1,2 |
| Week 12 | Project Presentations | 3,4,5 |

Note: subject to change based on progression through topics and availability of guest lecturers

5.3 Lab Schedule

Not applicable.

5.4 Other Important Dates

Refer to the Graduate Calendar for the schedule of dates:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/sched/sched-dates-w11.shtml>

Note: Last Drop Date (40th class day) – Friday, March 8.

6 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.

If the laboratory rules are not followed, consequences will include removing student's access to the lab. If this results in lab work not being completed, the student will receive a grade of 0.

7 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.

7.1 Resources

The Academic Misconduct Policy is detailed in the Graduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/graduate/current/>

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>

7.2 The use of Turnitin

This course uses Turnitin (integrated with the CourseLink Dropbox tool) to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph. All submitted assignments will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing academic misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

8 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 Centre for Students with Disabilities as soon as possible

For more information, contact CSD at [519-824-4120](tel:519-824-4120) ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.uoguelph.ca/csd/>

9 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.

10 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>