

**John M. Thompson Centre for
Engineering Leadership and Innovation**

ELI4110G – THE ETHICAL ENGINEER

Course Outline: Winter 2026

Course Coordinator: Minha R. Ha

LECTURE:	As Scheduled (3 hours per week)
LAB or TUTORIAL:	N/A
OFFICE HOURS *if applicable	Scheduled upon request
ANTIREQUISITE(s):	N/A
PREREQUISITE(s):	Completion of 3 rd Year of Engineering Program ¹
CEAB Academic Units:	100% Complementary Studies
TEXT / Course Resources	<p>Required readings (including selected chapters from resources listed below) are provided in OWL, at no additional cost to students.</p> <ul style="list-style-type: none"> • Andrews, Shaw and McPhee: Canadian Professional Engineering and Geoscience - Practice and Ethics, 6th Ed. Toronto: Nelson, 2019 • Marston: Law for Professional Engineers, 5th Ed. Toronto: McGraw-Hill Education, 2019. <p>Optional materials may be purchased from the UWO Book Store to augment required readings.</p>
DESCRIPTION Students analyze the PEO Code of Ethics, legal principles, and leadership character to appreciate their professional responsibility for ethical and equitable engineering practice. Students apply these frameworks to recent engineering cases and in the exploration of the ethics and sustainability of emerging technologies.	

Instructors – Winter 2026

Section	Instructor	Contact
003	L. Lockington-Wong, M.Ed., P.Eng.	llockin@uwo.ca
004, 005, 007	M. R. Ha, M.A.	mha4@uwo.ca
001, 002, 006	S. Asantey, Ph.D., P. Eng.	sasantey@uwo.ca

¹ As per Senate Academic Policies, unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites

General Learning Objectives (CEAB Graduate Attributes)

Knowledge Base		Engineering Tools		Impact on Society	A
Problem Analysis		Individual & Teamwork		Ethics and Equity	A
Investigation		Communication	A	Economics and Project Mgmt.	
Design		Professionalism	A	Life-Long Learning	A

Rating: I – The instructor will introduce the topic at the level required. It is not necessary for the student to have seen the material before. D – There may be a reminder or review, but the student is expected to have seen and been tested on the material before taking the course. A – It is expected that the student can apply the knowledge without prompting (e. g. no review).

Intended Learning Outcomes	CEAB Graduate Attributes
1. Effectively demonstrate awareness of good ethical and professional practices, and appreciate professional responsibility issues while working individually or functioning on a team	PR1, PR2, PR3, EE1, EE2, EE3
2. Independently create and articulate an organized analysis that effectively communicates a deeper understanding of an engineering ethics topic	LL2
3. Effectively identify, analyse, and solve ethical dilemmas in accordance with the Engineers Code of Ethics	PR1, PR3, EE1, EE2, EE3
4. Constructively apply knowledge of environmental and sustainability guidelines to the appraisal of engineering projects	IESE2, IESE3
5. Effectively prepare and present a professional viewpoint on ethical and sustainable development issues in an organized manner	CS2, CS3
6. Demonstrate sound understanding of equity issues in the workplace and professional responsibility issues	EE4
7. Effectively identify insights on resolving the ethical implications and risks of emerging and innovative technologies	EE4, EPM3
8. Convincingly demonstrate an understanding of the legal framework used to regulate the practice of engineering	IESE1

Topics

FOUNDATIONS: Professionalism, History, Ethical Principles, The Law - Regulation and Enforcement

- **Module 1: Professionalism and Engineering; Principles of ethics, character and decision making.**
- **Module 2: The Canadian Legal System and Environmental Law; The Professional Engineers Act and the Code of Ethics; Lifelong Learning.**
- **Module 3: Licensing and Discipline; Professional and ethical issues in consulting; Enforcement.**

Topics (continued)

APPLICATIONS: Law, Ethics and Equity Issues in the Workplace, the Environment and Emerging Technologies

- **Module 4:** Tort law principles; business and the engineer's liability; product safety; workplace safety; liability cases and intellectual property.
- **Module 5:** Contract law principles; contract discharge, interpretation, and remedies.
- **Module 6:** Ethics and conflicts in the workplace.
- **Module 7:** Introduction to Ethical Analysis Frameworks.
- **Module 8:** Ethics of emerging technologies: transparency, safety, security, privacy.
- **Module 9:** Sustainable development, social and economic justice.
- **Module 10:** Environmental ethics; climate change.
- **Module 11:** Equity, diversity & inclusion in hiring and in the workplace.

Assessments	% Total Grade	Due Date	Learning Outcomes (Graduate Attributes)
Formative, Independent Learning Project	5	Week 3	2 (LL2)
Code of Ethics Research Paper	25	Week 5	1, 3, 5 (CS3, PR1, PR3)
Case Research Presentation (Team)	15	Beginning Week 4	5 (CS2)
Contribution	15	Ongoing	1, 3, 5 (EE3, CS2)
Midterm Test*	20	Week 8 (Winter)	1, 3 (EE1, EE2, PR2)
Summative (Team- 17%, Individual – 3%)	20	Weeks 12 (report) & 13 (presentation)	1, 3, 4, 6, 7, 8 (EE4, IESE1, IESE2, IESE3)

*Midterm Test must be completed after Module 6 (Week 6). Winter 2026 Midterm schedule is scheduled for Week 8, due to Spring Reading Week occurring in Week 7 of the semester.

Formative, Independent Learning Project

Develop analytical skills to deepen your understanding of the readings. This supports the development of independent learning skills and life-long learning.

Code of Ethics Research Paper

Critically analyze the Code of Ethics, as defined in the Ontario Professional Engineers Act, Reg. 941, using 2 selected PEO Discipline Hearings. Interview a Professional Engineer or someone in the industry with an understanding of the Code of Ethics. **This is an essential course component.**

Case Research Presentation (Team)

Research and create a presentation to offer in-class, on an instructor-assigned topic. The topics and presentation schedule are available in OWL Assessments. You will apply the analytic frameworks learned in the course, demonstrate independent research and synthesis competencies, practice and demonstrate presentation skills in the oral delivery and visual materials prepared. **You will have at least three weeks to complete this work (instructions, dates, assigned teams announced in the first two weeks of the course).** Failure to contribute to this assessment will result in a zero grade or appropriate penalties, regardless of participation in the presentation delivery. See **"Team/Group assessment grades"** below.

Contribution

Complete the assigned readings and review resources to prepare for class discussion. Provide relevant and original insights to the open discussion by offering your perspective in a professional and respectful manner. There is no penalty for disagreement or a difference of opinion. The instructor reserves the right to replace one or more contribution sessions with a quiz, or contribution to the OWL forum. **Contribution will be assessed in weeks 1 – 12 (excludes Midterm and Reading Week).** Week 13 holds Summative Presentations only.

Midterm Test

In-person, linear multiple-choice, testing content in Modules 1-5. **This is an essential course component and absence reporting must include documentation (see Extra Course Information below).** An alternative form of assessment will be at the discretion of the instructor.

Summative Assignment (Team and Individual)

Select an emerging technology and prepare a report to answer a specific question about the associated ethical, equity and sustainability issues. Students present a summary of their report in the final class. **A 50% grade on the Summative is REQUIRED to pass the Course. This is an essential course component.**

General expectations for grading

Student's work and class contributions are evaluated on what would reasonably be expected of an upper year Undergraduate student according to the Ontario Qualifications Framework <http://www.tcu.gov.on.ca/pepg/programs/oqf/certificate11.html>. University-wide grade descriptors for Undergraduate students are provided in [Western's Academic Calendar](#).

Detailed rubrics for reports, presentations and in-class contributions are provided in OWL. For all submissions except the Team Presentation assignment, you will be submitting your work on **both OWL and Gradescope**. It is your responsibility to ensure successful submission on both platforms (failure to do so will involve penalties) by the appropriate deadlines.

Regrade requests will only be accepted during a 7-day period following the first 24-hours after marks are released (i.e. days 2 through 8 after marks are released). Use the first 24 hours after grades are released to make sure you understand the feedback you were given before asking for a regrade. Regrade requests must specify evidence from your submission that meet the expectations outlined in the rubric. If there was a clerical error in grading (e.g. points were added incorrectly; one question was left ungraded), that will be corrected. However, if it is a regrade request to review the evidence from your work against one or more evaluation criteria in written essay/report assignments, the entire submission may be reviewed for regrading (i.e. regrading can result in the total marks increasing or decreasing).

Team/Group assessment grades

All team grades are tentative. Individuals on a team will receive the same grade upon satisfactory demonstration of reasonable contribution levels and constructive, professional behaviour. If students observe that another team member is not a positive contributor, students are requested to resolve matters professionally and respectfully. If ineffective contribution or unprofessional behaviour continues, students may discuss concerns with the instructor. After consulting with the students and considering any impact of a student's behaviour on the team's performance, the instructor may adjust grades for any or all individuals on the team.

Expectations on student conduct

Students are expected to review module readings and activities in advance of the weekly class. Students are expected to arrive at class on time, and to conduct themselves in a professional and respectful manner that is not disruptive to others. Professionalism and respect are expected in all communications, class

discussions and presentations.

On the premises of the University, at a University-sponsored program or online educational program, students must abide by the Student Code of Conduct: <http://www.uwo.ca/univsec/board/code.pdf>. Review the Student Code of Conduct for relevant standards, policies, and procedures that protect the safety and well-being of the University community at large. The standard of conduct set out in this Code is expected of student behaviour on and off-campus, including electronic or digital communication.

EXTRA COURSE INFORMATION

The Faculty of Engineering has established for 2025 a set of [Policies and Procedures for Undergraduate Students](#). The policy covers:

- Absence/Late Accommodation Policy
- Religious Accommodation
- Academic Integrity
- Academic Offences
- Faculty of Engineering AI Policy
- Accessibility
- Inclusivity, Diversity, and Respect
- Health and Well-being

See the following subsections for notes on specifics on how some of these policies apply in the context of ELI 4110F/G.

I. Attendance

1. In-class participation in this Course demonstrates important learning outcomes and graduate attributes expected of Engineering students (captured in the Contribution grade, 15%). Any student who, in the opinion of the instructor, is absent too frequently from class will be reported to the Dean (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean, the student may be debarred from participating in the final assessment in the Course, and this will result in a failing course grade.
2. Missing a class that affects Contribution grades: Unexpected schedule conflicts may occur (e.g. job interview, conference) causing a missed class. You may arrange with your instructor ahead of time to attend a different section, and have your Contribution scores be forwarded to your section instructor. If Contribution scores are earned to alternate modes (e.g. online reflection form), you may be able to earn partial scores.
3. Potentially missing a class that affects presentation grades: It is imperative that you demonstrate your presentation skills during class for Team Presentation and the Summative assignments. If you are aware of a schedule conflict, discuss with your instructor as early as possible to find an arrangement that works (e.g. adjust your team's presentation date, be assigned to a different team).
4. In order to make alternate arrangements possible: Students missing a class, a test, or an in-class assessment (e.g. presentation) must report the absence by submitting an **Academic Consideration Request form** through the [STUDENT ABSENCE PORTAL](#) within the specified timeframe. See **Academic Considerations** section below for more details. Without Academic Considerations, absence will result in a zero grade for the associated graded

items during absence.

II. Midterm Exam Accommodation and Academic Considerations

1. Students with accommodations (long-term impact) through Accessible Education will be provided with confirmation of the arrangements prior to the Midterm Exam. See Accessibility section below for more details.
2. If you have a known schedule conflict with the Midterm, report your ~~expected~~ absence using the Academic Consideration Request Form through [STUDENT ABSENCE PORTAL](#). Upon approval you may be given a make-up Midterm schedule. See Academic Considerations section below for more details.
3. If you miss the Midterm without valid reasons (e.g. overslept) for Academic Considerations, you will receive a zero grade. The UGSO has an appeals process you can initiate even for cases like this, so please consult the UGSO for advice.

III. Late Assignments

1. **This course employs flexible deadlines for take-home assignments, by providing a 48-hour grace period for submission deadlines.** The assignment deadlines can be found on OWL. Students are expected to submit the assignment by the submission deadlines listed. However, if you encounter illness or extenuating circumstances, you can benefit from the grace period to your assignment up to 48 hours past the deadline without academic penalty.
2. **Because this course builds in flexibility in its assignment submission deadlines, no additional Academic Considerations will be granted.** See Academic Considerations section below for more details.
3. Should students submit their assessment beyond the grace period (48 hours past the deadline), a late penalty of 20% will be applied. Submissions will not be accepted beyond 72 hours past the deadline.
4. If you have an approved accommodation for disability or long-term circumstances that merits greater flexibility than provided here, please reach out to your instructor at least one week prior to the posted deadline.
5. Extensions beyond the end of classes must have the consent of the instructor, the department Chair and the Associate Dean, Undergraduate Studies. Documentation is mandatory. As a reminder, forged notes and certificates will be dealt with severely. To submit a forged document is an Academic Offence (see below).

IV. Academic Considerations: For circumstances with short-term impact on student performance

1. There may be situations (e.g. medical, religious, participation in an approved competition) that have **short-term** impact on your course participation and assessments (e.g. absence, late assignment). For such cases, Academic Consideration Requests may be submitted. At Western Engineering, Academic Consideration policies and procedures are found on the [corresponding UGSO website](#), also summarized or explained below. Academic Consideration Requests are submitted through [STUDENT ABSENCE PORTAL](#).
2. Only the requests for valid reasons and meeting any documentation/submission requirements will be considered for approval. The following circumstances are **not** considered grounds for Academic Considerations: travel arrangements, common cold, headache, sleeping in, or misreading the timetable.
3. **Upon approval, alternate arrangements** can be made by the instructor in order to help you fulfill the requirements of the Course with reasonable provisions. If you are granted an extension for an assignment, a new due date will be established. The approval of the Chair of your Department is only required if assignments will be submitted following the last day of classes.
 - a) Once the request and supporting documents have been received and reviewed, appropriate academic consideration, if granted, shall be determined by the instructor in consultation with the Academic Advisor, in a manner consistent with the course outline.
 - b) Academic consideration may include extension of deadlines, waiver of attendance requirements for classes/labs/tutorials, or re-weighting of course requirements. Some forms of academic consideration, such as arranging Special Examinations, assigning a grade of Incomplete, or granting late withdrawals without academic penalty, may only be granted by the Academic Advising office of the Faculty of Registration.
 - c) It is the student's responsibility to check the date, time and location of the [Special Examination](#).
4. Check the **requirements for documentation** for each relevant assessment. Documentation must be included with the form by default.
 - a) Be prepared to provide the Undergraduate Services Office (UGSO) with supporting documentation **at the latest within 48 hours from the missed assessment**, or as soon as possible (in cases where students are hospitalized).
 - b) Forged documentation will have grievous consequences on your academic records and **Good Standing** status with the Faculty of Engineering. Falling short of Good Standing will have negative consequences (e.g. make you ineligible for Co-Op).
5. **One request without** documentation is available for each course, once per term, on an assessment that is **NOT** designated “**essential**” for the Course. In other words, **undocumented absences cannot be used for the “designated assessment” in each course.**
 - a) Undocumented absences cannot be used for examinations scheduled by the Office of the Registrar during official examination periods (including take-home final exams and December mid-year exams for full courses) and practical laboratory and performance tests typically scheduled in the last week of the term.
6. For assessments that have **built-in flexibility**, Academic Consideration Requests may be denied. An instructor may also deny academic consideration for any assessment that is not required in the calculation of the final grade (e.g., “8 of 10 quizzes”). Assessment flexibility must be indicated on the course outline. When flexibility

in assessment exists and is clearly stated on the course outline, both undocumented absences and academic consideration requests with documentation may be denied.

7. For more information, consult Western University's Policy on Academic Consideration – Undergraduate Students in First Entry Programs (https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf)
8. For circumstances that have a **longer-term** impact on your performance, consult with your Academic Advisor and Accessible Education for **accommodations** ([Accessible Education - Academic Support & Engagement - Western University](#)).

V. Accessible Education and Accommodations: for circumstances with long-term impact on student performance

Western is committed to achieving barrier free accessibility for persons with disabilities studying, visiting and working at Western. As part of this commitment, there are a variety of services, groups and committees on campus devoted to promoting accessibility and to ensuring that individuals have equitable access to services and facilities. To help provide the best experience to all members of the campus community, please visit the [Accessibility Western University](#) for information on accessibility-related resources available at Western.

Students with disabilities may arrange for academic accommodation at Western. For a more detailed explanation, please visit [Academic Support & Engagement - Academic Accommodation](#).

VI. Accommodation/Academic Consideration for Medical or Religious Reasons

Refer to the Engineering Undergraduate Policies Framework (<https://www.eng.uwo.ca/undergraduate/academic-support-and-accommodations/policies.html>)

VII. Health and Well-Being

- [Health & Wellness Services – Students](#) - Offers appointment-based medical clinic for all registered part-time and full-time students.
- [Mental Health Support](#) - Provides professional and confidential services, free of charge, to students needing assistance to meet their personal, social and academic goals. Services include consultation, referral, groups and workshops, as well as brief, change-oriented psychotherapy. "Students who are in emotional/mental distress should refer to Mental Health @Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.
- [Crisis Support](#) - For immediate assistance, please visit Thames Hall Room 2170 or call 519-661- 3030. The crisis clinic operates between 11:00 am - 4:30 pm. For after-hours crisis support, click [here](#).
- [Gender-Based Violence and Survivor Support](#) - Western [is committed to reducing incidents of gender-based and sexual violence](#) and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced gender-based or sexual violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts, [here](#). To connect with a case manager or set up an appointment, please contact support@uwo.ca.

VIII. Academic Integrity, Academic Offences and Plagiarism

1. It is important that you are familiar with the standards and policies regarding academic integrity and

academic offences. refer to the Engineering Undergraduate Policies Framework (<https://www.eng.uwo.ca/undergraduate/academic-support-and-accommodations/policies.html>) and Western University policies here: [Scholastic Discipline for Undergraduate Students & Cheating, Plagiarism and Unauthorized Collaboration: What Students Need to Know](#). Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, in the Academic Handbook: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

- a) Western Engineering has a zero-tolerance policy on plagiarism. The minimum penalty is a zero grade on the course work and a repeat offence will earn you a zero grade on the course. A third offence may lead to expulsion from the university.
 - b) The instructor will forward all suspected cases of academic offences to the UGSO and the home department of the student(s) in question. Academic penalty decisions are made by the Associate Dean, Undergraduate.
2. On group assignments, each person named as a co-author must have directly contributed (e.g. initial writing, significant revisions, original figures) to the submitted document. **Activities such as participating in some discussions, or sharing resources or notes that do not contribute to the submitted work, do NOT merit sharing the team grade.** Claiming academic credit for a group assignment that one did not earn co-authorship, is considered academic dishonesty.
3. Students must write and create their own reports, essays, assignment and presentation materials. When you use an idea or a passage (whether paraphrased or directly quoted) or material (including figures) **from another author (or previous works by you in or outside the course), you must properly reference them (APA format) both in-text (some may be footnotes) and in the references list.** Claiming academic credit for works created by another author, or for your works that already received academic credit elsewhere in or outside the course, is considered plagiarism.
- a) For images used from external sources, there may be different types of referencing required (e.g. stock images, original photographs, published artwork, screenshots) – Please consult your instructor. Also see the AI policy section below.
 - b) The written assignments capture complex analyses and synthesis work that you perform, which are supported and communicated by your writing skills for clarity, logical organization, effective argumentation, and choice of emphasis. **It is unacceptable for largely AI-generated materials to serve as evidence of student competencies being assessed.** There may be appropriate uses of the available tools, while some uses would be highly discouraged or prohibited – see the AI policy section below.
 - c) All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (<http://www.turnitin.com>).
4. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.
5. As mentioned in the sections above, forging documentation for Academic Considerations will also be considered an academic offence. Review the relevant sections above.

IX. AI Policy

1. AI use is prohibited for the Independent Learning Poster (ILP) assignment and all presentation materials. AI-generated images risk infringing on the intellectual property rights of artists/creators. In both text, visual, and organization, ILP especially presents your personal ways of thinking through course-specific content in the first three Modules.
2. You may use generative AI tools (GenAI) in a limited capacity for the Code of Ethics (CoE) essay and the Summative report: (a) for a broad overview of a topic in very early stages of your work, to identify key concepts and references for you to critically review and explore further; (b) for very small-scale, targeted editorial suggestions (e.g. ways to re-phrase a sentence, suggestions to condense a paragraph) on small elements of the written report/essay, in later stages of your work; and (c) for suggestions on the high-level structure of your essay/report, **without** uploading your entire written work for revisions.
 - a) Typically AI-generated textual content will lose the author's unique voice and specificity, especially in terms of: context, analytic explanations and even conceptual clarity (especially related to this course). This can result in communication of a surface level understanding of the topic (which does not meet the assignment expectations in this course).
 - b) By appropriately using available tools to assist you in research or examining options for organizing and phrasing your original analyses, the authoring decisions remain with you. You must ensure that your writing and analytical competencies are accurately and authentically demonstrated by your submissions.

X. Use of Electronic Devices

Students may use laptops, tablet computers, or smart phones (vibrate mode only) during class for course related activities. The instructor will periodically indicate that students should "close laptops" to provide their full attention to the learning activities and/or student presentations.

XI. Recording

1. The course intellectual content belongs to the instructors and/or the Faculty of Engineering. Participants in this course are not permitted to record sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor. Students are not allowed to disclose any recordings or their content to anyone not participating in the course without written authorization from the instructor.
2. Recordings made with the instructor's permission are strictly limited for use in study for this course and may not be shared without express permission.
3. For any recording of course activities taken by course instructors, students will be notified and will only be used to improve course delivery, instructional content or feedback to students. This may include, but is not limited to, a) videos of student presentations for presentation skills feedback, b) pictures of project displays or deliverables for instructional feedback, and c) pictures or videos of Lecture activities for illustrating future instructional material. Images of students (i.e. photos or videos) will not be recorded without prior consent.
4. Photos and videos may be taken at major course events to promote public engagement at future events, in promoting Western Engineering programs, and to improve instructional materials for future course iterations. Students wishing to discuss the collection and use of recordings during course activities should contact the course coordinator.

XII. Internet and Electronic Mail

Students are responsible for regularly checking their Western e-mail and the course web site in OWL to make themselves aware of any information that is posted about the course.

XIII. Use of English Policy

In accordance with Senate and Faculty Policy, students may be penalized up to 10% of the marks on all assignments, tests, and examinations for improper use of English. Additionally, poorly written work except for the final examination may be returned without grading. If resubmission of the work is permitted, it may be graded with marks deducted for poor English and/or late submission.

Important Contacts

Engineering Undergraduate Services	SEB 2097	519-661-2130	engugrad@uwo.ca
Office of the Registrar/Student Central	WSSB 1120	519-661-2100	
John M. Thompson Centre for Engineering Leadership and Innovation	ACEB 2410	519-661-2111 ext. 86725	tceli@uwo.ca

Important Links

- [Western Academic Calendar](#)
- [Academic Rights and Responsibilities](#)
- [Engineering Progression Requirements and Academic Regulations](#)
- [University Students' Council \(USC\) - Services](#)
- [Important Dates and Deadlines](#)
- [Student Online Forms](#)
- [Office of the Registrar](#)
- Select University Policies:
 - [Academic Consideration for Medical Illness - Undergraduate Students](#)
 - [Accommodations for Religious Holidays](#)
 - [Scheduling of Assignments, Tests, and Examinations](#)
 - [Academic Appeals](#)