

Course Outline (W2025)

CEN800: Law and Ethics in Engineering Practice

Instructor(s)	Dr. Dimitri Androutsos [Coordinator] Office: ENG 362 Phone: 555334 / 556104 Email: cen800@torontomu.ca Office Hours: TBA
Calendar Description	Study of the legal and ethical aspects of engineering practice, including Canadian legal system and business organizations, tort liability, business contract law, intellectual and industrial property, principles of arbitration and alternative dispute resolutions, the practice of engineering, occupational health and safety, ethical aspects of engineering practice, ethical dilemmas in project management, sustainable development and ethical behavior, and globalization and international standards for ethical and social responsibility.
Prerequisites	None
Antirequisites	None
Corerequisites	None
Compulsory Text(s):	<ol style="list-style-type: none"> 1. <i>Canadian Professional Engineering and Geoscience :Practice and Ethics</i>, Andrews, G, 6th edition, Thomson Nelson , 2018. \$140 CAD 2. <i>Law for Professional Engineers</i>, 5th Edition, Marston, D, McGraw Hill Ryerson, 2019. (both above text books also required for the PPE) \$122.95 3. Handouts for CEN800 : available on TMU D2L course shell 4. ISO/DIS 26000 Social Responsibility: www.ISO.org or TMU D2L
Reference Text(s):	<ol style="list-style-type: none"> 1. <i>Practical Law of architecture, Engineering and Geoscience</i>, B.M. Samuels, D. R. Sanders, Person/Prentice Hall, 2007. 2. <i>The New Engineers Guide to Growth and Professional Awareness</i>, Gabelman, I, IEEE Press, 1996 3. <i>The Successful Engineer: Personal and Professional Skills-A Sourcebook</i>, Martin, JC, McGraw Hill, 1993 4. <i>Introduction to Ethics in Engineering</i>, Martin, M and Schinzinger, R, McGraw Hill, 2000 5. <i>Critical Concepts of Canadian Business Law</i>, Weir, J and Ellis, S, Addison Wesley Publishers Ltd, 1997 6. <i>Hold Paramount The Engineer's Responsibility to Society</i>, Gunn, A and Vesilind , P.ATHomson Brooks/Cole, 2003 7. Additional materials are posted on D2L, the study of these materials will be necessary for the quizzes.
Learning Objectives	At the end of this course, the successful student will be able to:

(Indicators)	<ol style="list-style-type: none"> 1. Become aware of regulations governing professional practice, such as Professional Engineers Act. (8c) 2. Incorporate the public interest in decision-making processes. (8b) 3. Consider economic, social, and environmental factors in decisions. (9a) 4. Able to recognize and understand basic legal principles relating to business organizations, the Canadian legal system, torts, contracts and other legal issues that are faced by engineers in their practices. (10a) 5. Recognize the need to keep current regarding new developments in the field (12b) <p>NOTE: Numbers in parentheses refer to the graduate attributes required by the Canadian Engineering Accreditation Board (CEAB).</p>										
Course Organization	3.0 hours of lecture per week for 13 weeks 0.0 hours of tutorial per week for 12 weeks										
Teaching Assistants	TBA										
Course Evaluation	<table> <tr> <td>Midterm Examination</td><td>45 %</td></tr> <tr> <td>Final Examination</td><td>45 %</td></tr> <tr> <td>Quiz on Health and Safety (online)</td><td>5 %</td></tr> <tr> <td>Quiz on Sustainable Development (online)</td><td>5 %</td></tr> <tr> <td>TOTAL:</td><td>100 %</td></tr> </table> <p>Note: In order for a student to pass a course, a minimum overall course mark of 50% must be obtained. In addition, for courses that have both "Theory and Laboratory" components, the student must pass the Laboratory and Theory portions separately by achieving a minimum of 50% in the combined Laboratory components and 50% in the combined Theory components. Please refer to the "Course Evaluation" section above for details on the Theory and Laboratory components (if applicable).</p>	Midterm Examination	45 %	Final Examination	45 %	Quiz on Health and Safety (online)	5 %	Quiz on Sustainable Development (online)	5 %	TOTAL:	100 %
Midterm Examination	45 %										
Final Examination	45 %										
Quiz on Health and Safety (online)	5 %										
Quiz on Sustainable Development (online)	5 %										
TOTAL:	100 %										
Examinations	Midterm test in Week 7, two hours, multiple-choice. (covers Weeks 1-6). Final exam, during the formal exam period, two hours. (covers Weeks 8-13).										
Other Evaluation Information	Midterm will be held during regular lecture hours. The final exam will be during the formal exam period and in assigned rooms.										
Other Information	The course is 13 sessions of 3 hour blocks every week. The first 6 sessions (18 hours) will cover Law in Engineering . The following 6 sessions will cover Professionalism and Ethics in engineering as well as Sustainable Development and Social Responsibility . The course has a D2L site which is where ALL formal announcements and material can be found. ALL Course announcements will be made via D2L. The quizzes will be posted and submitted using D2L. Please check the site frequently for important announcements and deadlines for submitting the quizzes.										

IMPORTANT: ALL formal communication about the course MUST be done through the email address: cen800@torontomu.ca. Messages sent to the direct email of the co-ordinator will be ignored.

If a student is requesting accommodation due to a religious, Aboriginal and/or spiritual observance, they must submit their request via the online Academic Consideration Request (ACR) system **within the first two weeks of the class or, for a final examination, within two weeks of the posting of the examination schedule.** If the required absence occurs within the first two weeks of classes, or the dates are not known well in advance as they are linked to other conditions, these requests should be submitted with as much lead time as possible in advance of the required absence.

Course Content

Week	Hours	Chapters / Section	Topic, description
1	3	Text2 Ch 1-3	<p>Overview of the Canadian Legal System and Business Organizations</p> <ul style="list-style-type: none"> • The Canadian Legal System • Types of Business Entities • Corporations and Corporate Law • Partnerships/ • Corporate Taxes • Business Organizations in Foreign Jurisdictions/ • Engineering Corporations and Partnerships • International Joint Ventures and Financial Risks <p>Lecturer: A. Wong</p>
2	3	Text2 Ch 4, 33	<p>Introduction to Tort Liability</p> <ul style="list-style-type: none"> • Different Types of Tort Liability • Fundamental Purpose of Tort • Principles of Negligence • Standard of Care - Engineers • Vicarious Liability and Concurrent Tortfeasors • Economic Loss <p>Intellectual and Industrial Property</p> <ul style="list-style-type: none"> • Patents of Inventions • Trademarks • Copyrights • Intellectual Property Rights • Engineering and Industrial Design <p>Lecturer: A. Wong</p>

3	3	Text2 Ch7-20	<p>Business Contract Law</p> <ul style="list-style-type: none"> • Important Aspects of Contracts • Assignments of Rights • Offer and Acceptance of Contracts • Capacity of Individuals and Corporations • Legality of Contracts • Misrepresentation, Duress and Undue Influence • Mistake • Interpretation and Discharge of Contracts • Breach of Contract <p>Lecturer: R. Sebastiano</p>
4	3	Text2 Ch21-23	<p>Business Contract Law</p> <ul style="list-style-type: none"> • Breach of Contracts • The Engineers Liability and Compliance with the Law • Concurrent Liability in Tort and Contracts • The Tendering Process • Aspects of Professional Service Contracts <p>Lecturer: R. Sebastiano</p>
5	3	Text2 Ch5,6	<p>Introduction to Limitation Periods and Proof</p> <ul style="list-style-type: none"> • Statutory Limitation Periods • Discoverability • Contractual Notice Periods • Burden of Proof • Witnesses • Privilege <p>Lecturer: P. Ivanoff</p>
6	3	Text2 Ch 25,26,28-30	<ul style="list-style-type: none"> • Bonds and Performance Guarantees • Alternative Dispute Resolutions • Lien Legislation • Risks in Construction <p>Lecturer: P. vanoff</p>

7	3	-	First Examination Midterm Exam during class lecture period (covers law in engineering practice during) . Exam counts for 45% of final grade.
8	3	Text1 Ch1-4	The Practice of Engineering <ul style="list-style-type: none"> • History of the Engineering Profession • Regulation of engineering • Continuing professional development • Disciplinary powers and procedures • Technical societies • Basic concepts of professional practice Lecturer: F. Stewart
9	3	Text1 Ch9-10 Text2 Ch32	Ethical Aspects of Engineering Practice <ul style="list-style-type: none"> • Overview of Moral Philosophy • Ethical Theories and Dilemmas • Conflict of interest • Engineering Code of Ethics • Decision-making process for ethical dilemmas • Ethical Dilemmas of Engineers in Industry: Case Study 1 Lecturer: F. Stewart
10	3	Text1 Ch5,11,12	Ethical Aspects of Engineering Practice <ul style="list-style-type: none"> • Ethical Dilemmas of Engineers in Management: Case Study 2 • Ethical Dilemmas of Engineers in Private Practice: Case Study 3 Lecturer: M. Rosen
11	3	Course Notes	Ethical Dilemmas in Project Management <ul style="list-style-type: none"> • Overview Concepts of Project Management • Project Management in Engineering Practice • Management of Time, Cost and Quality • Risk Management • Quality Management • Ethical Dilemmas in the Management of Engineering Projects

			Lecturer: M. Rosen
12	3	Text1 Ch6,8,13-15 Course Notes	Sustainable Development and Ethical Behavior <ul style="list-style-type: none"> • Ethical aspects of Corporate Social Responsibility (CSR) and Sustainable Development • Environmental Sustainability: Climate Change, Energy, Human Impact on Ecology, Water, Air and Land, Effluent Control, Treatment and Energy Efficiency • Economic Sustainability: Governance, Transparency, Reporting and Communication • Social Sustainability: Stakeholder Engagement, Human Rights and Gender Equity, Occupational Health and Safety of Workers • Resource Management and Sustainable Development Lecturer: B. White
13	3	Text1 Ch6,8,13-15 Course Notes	Globalization and International Standards for Ethical and Social Responsibility <ul style="list-style-type: none"> • The Ethical Impact of Standards on International Trade and Globalization • Introduction to draft of ISO 26000 Social Responsibility and its relationship to other International Standards for CSR and Sustainable Development including: GRI, Global Compact, Environmental, Quality Occupational Health and Safety Management System Standards • Responsible Competitiveness • Voluntary standardization versus Environmental Laws and Regulations Lecturer: B. White

University Policies & Important Information

Students are reminded that they are required to adhere to all relevant university policies found in their online course shell in D2L and/or on [the Senate website](#)

Refer to the [Departmental FAQ_page](#) for further information on common questions.

Important Resources Available at Toronto Metropolitan University

- [The Library](#) provides research [workshops](#) and individual assistance. If the University is open, there is a Research Help desk on the second floor of the library, or students can use the [Library's virtual research help service](#) to speak with a librarian.
- [Student Life and Learning Support](#) offers group-based and individual help with writing, math, study skills, and transition support, as well as [resources and checklists to support students as online learners](#).
- You can submit an [Academic Consideration Request](#) when an extenuating circumstance has occurred that has significantly impacted your ability to fulfill an academic requirement. You may always visit the [Senate website](#) and select the blue radio button on the top right hand side entitled: **Academic Consideration Request (ACR)** to submit this request.

For Extenuating Circumstances, Policy 167: Academic Consideration allows for a once per semester ACR request without supporting documentation if the absence is less than 3 days in duration and is not for a final exam/final assessment. Absences more than 3 days in duration and those that involve a final exam/final assessment, require documentation. Students must notify their instructor once a request for academic consideration is submitted. See Senate [Policy 167: Academic Consideration](#).

- If taking a remote course, familiarize yourself with the tools you will need to use for remote learning. The [Remote Learning Guide](#) for students includes guides to completing quizzes or exams in D2L Brightspace, with or without [Respondus LockDown Browser and Monitor, using D2L Brightspace](#), joining online meetings or lectures, and collaborating with the Google Suite.
- Information on Copyright for [Faculty](#) and [students](#).

Accessibility

- Similar to an [accessibility statement](#), use this section to describe your commitment to making this course accessible to students with disabilities. Improving the accessibility of your course helps minimize the need for accommodation.
- Outline any technologies used in this course and any known accessibility features or barriers (if applicable).
- Describe how a student should contact you if they discover an accessibility barrier with any course materials or technologies.

Academic Accommodation Support

Academic Accommodation Support (AAS) is the university's disability services office. AAS works directly with incoming and returning students looking for help with their academic accommodations. AAS works with any student who requires academic accommodation regardless of program or course load.

- Learn more about [Academic Accommodation Support](#).
- Learn [how to register with AAS](#).

Academic Accommodations (for students with disabilities) and Academic Consideration (for students faced with extenuating circumstances that can include short-term health issues) are governed by two different university policies. Learn more about [Academic Accommodations versus Academic Consideration and how to access each](#).

Wellbeing Support

At Toronto Metropolitan University, we recognize that things can come up throughout the term that may interfere with a student's ability to succeed in their coursework. These circumstances are outside of one's control and can have a serious impact on physical and mental well-being. Seeking help can be a challenge, especially in those times of crisis.

If you are experiencing a mental health crisis, please call 911 and go to the nearest hospital emergency room. You can also access these outside resources at anytime:

- **Distress Line:** 24/7 line for if you are in crisis, feeling suicidal or in need of emotional support (phone: 416-408-4357)
- **Good2Talk:** 24/7-hour line for postsecondary students (phone: 1-866-925-5454)

- **Keep.meSAFE:** 24/7 access to confidential support through counsellors via [My SSP app](#) or 1-844-451-9700

If non-crisis support is needed, you can access these campus resources:

- **Centre for Student Development and Counselling:** 416-979-5195 or email csdc@torontomu.ca
- **Consent Comes First - Office of Sexual Violence Support and Education:** 416-919-5000 ext 3596 or email osvse@torontomu.ca
- **Medical Centre:** call (416) 979-5070 to book an appointment

We encourage all Toronto Metropolitan University community members to access available resources to ensure support is reachable. You can find more resources available through the [Toronto Metropolitan University Mental Health and Wellbeing](#) website.