

ENGG 102E Introduction to the Engineering Profession*2 Credits, 2 Hours Lab per week*

2.0 Engineering units for the University of Alberta

This course is an introduction to the engineering profession. Students will attend seminars presented by professional engineers of various disciplines. Students may also examine: engineering disciplines; co-operative education; study skills; career fields and work opportunities; history and development of the profession; professional responsibilities; ethics; and engineering and society. Interaction with local professional engineers may involve a resume critique and mock interview session, and also attendance at a local professional engineering conference.

NOTE: ENGG 102 is restricted to Engineering students

Instructor

Instructor: Neil O'Donnell

Office location : S209G

Phone number: 780-791-4821

[email_neil.o'donnell@keyano.ca](mailto:neil.o'donnell@keyano.ca)**Office Hours (Fall 2020)**

Monday	3:00 – 3:50 pm
Wednesday	11:00 – 11:50 am
Thursday	2:00 – 3:50 pm
Friday	11:00 – 11:50 am

Other times are possible, by appointment

Hours of Instruction

Tuesday 6:30 – 8:30 pm Room S214

Required Resources**Introduction to Professional Engineering in Canada, Fourth Canadian Edition, 5/E**

Andrews / Aplevich / MacGregor / Fraser ISBN 978-0-13-420448-2

A Canadian Writer's Reference, D. Hacker, Bedford/St. Martin's Press.**Course Outcomes**

Upon successful completion of the course, students will be able to:

- Explain and contrast the various traditional and emerging disciplines within the engineering profession.
- Conceptualize ethical problems in engineering, and formulate possible solutions.
- Examine and give examples of career paths (pre- and post- degree) presented by guest speakers from the engineering industry.
- Organize networking contacts with industry representatives to facilitate possible summer employment.
- Write reports and assignments in proper engineering style.

Advice to Prospective Engineers

Engineers are problem solvers. If you want to succeed in engineering it is important that you learn how to organize your thoughts, to analyze, set up, and solve problems and to experience the often frustrating trials that arise in doing so. The best way to learn and retain knowledge is by practicing; the more problems you attempt and complete, the more experienced and confident you will become.

Engineering is a demanding profession: you must be able to clearly articulate solutions to complex problems in a timely manner. This course will encourage you to develop the work habits and skills necessary to submit clear and concise work on deadline. To reinforce this, keep in mind that sloppy work will not be graded in any component of this course, and late work will also not be accepted.

Teamwork is pervasive in engineering, but this is an activity that takes place among competent peers.

Teamwork is a privilege that comes with competence. It is not a way to get by when you lack the skills to do the work yourself. In this course, working in groups can be helpful and is not discouraged, but you must be careful not to use teamwork to coast through an assignment or project; any work that you turn in must be your own (see rules on plagiarism below).

Engineering Orientation

All engineering students are required to attend a series of orientation sessions during the first week of the term. **Successful completion of the exercises on lab safety and academic integrity is a prerequisite for submitting any written or on-line work for grading.**

Lecture Notes

You are responsible for keeping a complete record of classroom work (whiteboard notes, classroom exercises, and guest speakers) in a proper notebook. Some (but not all) guest speakers provide copies of their notes and presentations, and these will be posted on Moodle, ENGG102.

Mentoring

All engineering students will be assigned a mentor (a faculty member). Brief meetings between student and mentor will take place at regular intervals, usually weekly, to help students manage the demands of the engineering program. Typical topics discussed with a mentor include study strategies, guidance, monitoring academic progress, among others.

Assignments

It is important to start the reports and assignments early and not put them off until the day before they are due. Assignments must be completed via the assignment web site before the posted due dates; partially completed assignments receive the score achieved before the due date.

Evaluation

Assignment	Percentage	Due Date
Assignments, CMP Conference	10%	Weekly, as occur
Ethics Workshops	7.5%	As occur
Mock Interviews	7.5%	As occur
Reports on 5-7 Guest Speakers	35% (5% each)	Weekly, as occur
Final Examination	40% *	TBA

*See note below under **Final Exam**

Due Dates

- To get credit for a report, you must attend the scheduled event. If you are absent, the mark recorded will be zero.
- Due Dates for reports are set for a maximum of two weeks following a class, video assignment, workshop, technical conference, lecture, or guest presentation.
- More than two weeks late – zero assigned.
- Unless specified differently by instructor, reports, and assignments will be submitted electronically via Moodle.
- Any changes due to special circumstances will be communicated by the instructor at the class and also via Moodle. Students should check regularly.

Term Mark

- Term mark will be determined from all the reports, and assignments, and the mark will be the weighted average of all submissions.
- If all submissions have been handed in, the lowest mark will be excluded from the calculation.
- If one submission is missing, the calculation will be based on the weighted average of the others. In other words, you can miss one submission without penalty.
- If more than one submission is missing, the calculation will include the zeros for other missing items.

Final Exam

- If 20% or more of submissions (reports, and assignments) are missing, student will not be allowed to write the final exam, and will fail the course.
- The final written exam will be based on the content of the presentations given in class during the semester (where possible, presentations will be posted on the Moodle site for review).
- Students are required to achieve a grade of 50% or higher on the final exam to successfully complete the course and receive credit in ENGG 102.

Grading System

- Pass – You have successfully completed the course and received credit.
- Fail – You have failed to successfully complete one or more of the required components in the course and have not received credit. ENGG 102 is a requirement of your Engineering degree program and you must successfully complete it in order to receive your degree.

Proposed Schedule of Topics

Classes will consist of a variety of elements, such as - lectures by the instructor or professional engineers from industry, video assignments, technical conferences, APEGA meetings, or other special presentations. The proposed schedule will be presented at the first class on Tuesday, Sept.1, 2020.

A number of formats for the learning of course content will be used. Details of the presentation format, term work, assignments, and text references for the content will be given as the course progresses. The order in which these topics are addressed and the time spent on each may vary, depending on the availability of guest speakers. It is your responsibility to obtain such material and information by attending class regularly. You will be expected to actively interact with our guest speakers. Together, we can make this class a productive and practical learning experience.

Please Note:

Date and time allotted to each topic is subject to change.

Performance Requirements

Student Responsibilities

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own;
- The use of unauthorized aids in assignments or examinations (cheating);
- Collusion or the unauthorized collaboration with others in preparing work;
- The deliberate misrepresentation of qualifications;
- The willful distortion of results or data;
- Substitution in an examination by another person;
- Handing in the same unchanged work as submitted for another assignment; and
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies.

In order to ensure your understanding of the concept of plagiarism, you must successfully complete the online tutorial found on ilearn.keyano.ca. Then print the certificate, sign it, and show it to each of your instructors. Your course work may not be graded until you show this signed certificate.

Specialized Supports

The Student Services department is committed to Keyano students and their academic success. There are a variety of student supports available at Keyano College. Due to the continuing situation

with the Covid-19 pandemic, the offered support services will be implemented differently this semester by being provided mostly virtually. In-person service can be requested as needed. All Alberta Health Services guidelines will be followed for in-person appointments—wear a mask, maintain two meters of physical distance, use hand sanitizer, and stay home if you are unwell.

All student services are available during Keyano business hours: Monday to Friday, 8h30-16h30. The Library has evening and weekend hours. Please check keyano.ca/library for current hours.

Accessibility Services: provides accommodations for students with disabilities. Students with documented disabilities, or who suspect a disability, can meet with a Learning Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact us to request them for the semester. Please note that requesting accommodations is a process and requires time to arrange. Contact us as soon as you know you may require accommodations. For accessibility services supports and to book a virtual appointment, please contact accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students, as well as technology training and supports to enhance learning. Meet with a Learning Strategist to learn studying and test-taking strategies for online classes. Schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing accessibility.services@keyano.ca

Academic Success Coaching: offers you support and access to resources for your academic success to help you to find the Keys to your Success. The Academic Success Coach will work with you to develop an academic success plan, develop your study and time management skills, and connect you with the right resources here at Keyano. Academic.success@keyano.ca is the best way to access resources during virtual service delivery.

Wellness Services: offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators offer a safe and confidential environment to seek help with personal concerns. All individual appointments will continue virtually.

Wellness Services welcomes students to participate in any of the virtual group sessions offered throughout the academic year addressing topics including mindfulness and test anxiety.

Individual virtual appointments can be made by emailing wellness.services@keyano.ca.

Library Services: provides students with research and information supports as they engage in their studies. Library staff are available to support you both virtually and in person during the fall semester. For library service supports and inquiries, please email askthelibrary@keyano.ca.

[Individual support with the Information Librarian will be provided virtually. Appointments can be requested by email or by placing a Book a Librarian request](#) using the online form found [here](#).

Research and Subject Guides are helpful resources when conducting research or addressing your information needs. To view a subject or course specific guide, use the following [Subject Guides link](#)

To access additional research resources, including Citation Guides (APA, MLA, Chicago, or IEEE), go to the [Research Help Library page](#).

Skill Centre: provides academic support services to students registered in credit programs at Keyano College in the form of tutoring, writing support groups, facilitated study groups, workshops and study

space. Tutoring services are **free** to Keyano students. Tutoring is available for Math, Writing, English, and Science subject areas.

While most courses are being offered online, the Skill Center will be offering mostly virtual tutoring services and in-person sessions as requested. Please email Skill.centre@keyano.ca to get in contact with our tutoring staff.

For the most up to date information on how to book a tutoring session, please view the [Keyano Skill Centre homepage](#).

E-Learning

Technology and internet will impact your online learning experience. It's important that you are able to watch an online video and other course materials, take online quizzes, and participant in a live class with your instructor and other students.

Keyano College operates in a Windows based environment and having the correct tools for online learning is important. Here's a list of recommended system requirements for Fall 2020.

Internet Speed

Minimum Internet speeds of 5 Mbps.

Recommended Internet speeds of 25 Mbps (especially if you are sharing your internet at home).

Check your internet speed with [Fast.com](#).

System requirements:

Microsoft Windows	Apple
<p>Minimum Requirements:</p> <ul style="list-style-type: none"> A Windows 10 computer/laptop • Minimum 4GB of RAM. • 10GB+ available hard drive storage. • Enough available hard drive space to install the Microsoft Office suite (approximately 3GB). Microsoft Office software is free to all Keyano students and employees. • Microphone, webcam and speakers. A headset with a microphone is recommended. • System updates must be regularly installed. • Anti-Virus / Anti-Malware software . 	<p>Minimum Requirements:</p> <ul style="list-style-type: none"> A Macintosh (V10.14 and above) computer/laptop • Minimum 4GB of RAM. • 10GB+ available hard drive storage. • Enough available hard drive space to install the Microsoft Office suite (approximately 3GB). Microsoft Office software is free to all Keyano students and employees. • Microphone, webcam and speakers. A headset with a microphone is recommended. • System updates must be regularly installed. • Anti-Virus / Anti-Malware software.
<p>Recommended Requirements</p> <ul style="list-style-type: none"> • 8GB of RAM • A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free. 	<p>Recommended Requirements</p> <ul style="list-style-type: none"> • 8GB of RAM • A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free.
<p>Chromebooks are not recommended as they are not compatible with testing lockdown browsers. A Microsoft Surface or iPad or iPad Pro may be possible alternatives in some program areas.</p>	

Specific department requirements:

Business and OA programs require Windows 10.
Other programs may utilize Windows based tools as well.

Computer Software

Students will be able to get access to Microsoft Office 365 for Free using Keyano Credentials by [clicking here](#).

Recording of lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or by Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not publish any of the lectures or lecture materials, this includes any recordings, slides, instructor notes, etc. on any platform. Thus no student is allowed to publish or sell instructor notes without formal written permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property.

ITS Helpdesk

If you are having issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.

Please watch your Keyano email for workshop announcements from our Student Academic Support Services team.