Mechanical & Industrial Engineering
UNIVERSITY OF TORONTO

COURSE AND OPTIONS SELECTION HANDBOOK

MECHANICAL ENGINEERING

4TH YEAR

CONTENTS

WHAT IS COURSE & OPTIONS SELECTION ?

Each year the Office of the Registrar asks you to provide them with indicators as to which program option and technical elective courses you plan to take in the coming academic year. **The information that you provide to us through Course and Options Selection (COS) helps us identify the demand for program options and courses. This information is used for the course scheduling process and for uploading your course selections to ROSI.** When selecting your technical electives be sure that your selections meet the program requirements for your program of study.

Please be advised that students who do not participate in COS will not be guaranteed a space in technical elective courses, so it is in your interest to submit your selections.

We greatly appreciate your cooperation with this exercise. It can be completed on Degree Explorer at the link: degreeexplorer.utoronto.ca

INFORMATION IN THIS HANDBOOK WAS UPDATED IN MAY 2019. COURSES, DEGREE REQUIREMENTS, AND DATES MAY CHANGE FROM YEAR TO YEAR, SO BE SURE TO CHECK THE CURRENT YEAR'S ACADEMIC CALENDAR

IMPORTANT DATES

DATE	
Mid February to Early March	**COURSE & OPTION SELECTION OPENS** **degreeexplorer.utoronto.ca** Students may now login and make their curriculum selections for the upcoming academic year
Early March	**LAST DAY FOR STUDENTS TO APPLY TO RE-ENROL OR SWITCH TO FULL-TIME FOR FALL SESSION***
Late July	**COURSE SELECTION (ROUND 1) OPENS *ACORN*** Students may now make changes to their timetable. Electives offered by the Faculty of Engineering and Enhanced Enrolment Arts & Science electives are now open for enrolment
Mid August	**COURSE SELECTION (ROUND 2) OPENS *ACORN*** For electives offered by the Faculty of Arts & Science
Mid/Late August	**MIE490 CAPSTONE PROJECT SELECTION**
Late August	**LAST DAY TO PAY OR DEFER TUITION FEES**
Early September	**ENGINEERING FALL (F) LECTURES BEGIN**
Mid September	**DEADLINE TO SUBMIT TECHNICAL ELECTIVE SUBSTITUTION REQUESTS FOR 4F** **DEADLINE TO SUBMIT THESIS ENROLMENT FORMS FOR FALL (F) & FULL-YEAR (Y) PROJECTS** **DEADLINE TO SUBMIT COURSE REQUEST FORMS FOR FALL (F) & FULL-YEAR (Y) COURSES**
Late September	**FALL (F) & FULL-YEAR (Y) COURSE ADD DEADLINE** Last day to add or substitute Fall (F) or Full-Year (Y) Session courses

IMPORTANT DATES

DATE	
Early November	**FALL (F) COURSE DROP DEADLINE** Last day to drop Fall (F) Session courses with-out academic penalty, withdraw from the Fall (F) session without academic penalty, or transfer to part-time studies for the Fall (F) session
Early January	**ENGINEERING WINTER (S) LECTURES BEGIN**
	DEADLINE TO SUBMIT TECHNICAL ELECTIVE SUBSTITUTION REQUESTS FOR 4W
	DEADLINE TO SUBMIT THESIS ENROLMENT FORMS FOR WINTER (S) PROJECTS
	DEADLINE TO SUBMIT COURSE REQUEST FORMS FOR WINTER (S) COURSES
Mid January	**WINTER (S) COURSE ADD DEADLINE** Last day to add or substitute Winter (S) Session courses
Mid January	**DEADLINE TO SUBMIT PER HOURS FOR JUNE CONVOCATION** **IRON RING CEREMONY**
Early March	**WINTER (S) & FULL YEAR (Y) COURSE DROP DEADLINE** Last day to drop Winter (S) Session and Full-Year (Y) courses without academic penalty
Late March	**NAME CHANGE DEADLINE** Deadline to submit any name changes to the Office of Convocation that are to appear on your degree.
June	**CONVOCATION** Congratulations!

*For fee and refund schedule information, follow the link below:

http://www.fees.utoronto.ca/sessions.htm

CURRICULUM

FALL SESSION - YEAR 4

COURSES

CORE REQUIRED COURSE	COURSE CODE	LEC/LAB/TUT/WGT.
Capstone Design	MIE491Y1	- / - / 4 / 1 0
STREAM OPTIONS (TWO OF):		
MANUFACTURING		
Automated Manufacturing	MIE422H1	2 / 3 / - / 0.5
MECHATRONICS		
Control Systems I	MIE404H1	3 / 3 / 2 / 0.5
SOLID MECHANICS & DESIGN		
Machine Design	MIE442H1	3 / 1.5 / 3 / 0.5
ENERGY & ENVIRONMENT		
Alternative Energy Systems	MIE515H1	3 / - / 1 / 0.5
BIOENGINEERING		
Biotransport Phenomena	MIE520H1	3 / - / 1 / 0.5

CAN I CHANGE MY STREAMS IN FOURTH YEAR?

No. In order to graduate, you must take a course following each of your stream selections in 3W. If you find another 4F stream course interesting, you may take it in place of a technical elective in addition to your two continued stream courses.

TECHNICAL ELECTIVES (ONE OF):		
Aerodynamics	AER307H1	3 / - / 1 / 0.5
Robotics	AER525H1	3 / 1.5 / 1 / 0.5
Operating Systems	ECE344H1	3 / 3 / - / 0.5
Industrial Ergonomics and the Workplace	MIE343H1	3 / 3 / - / 0.5
Systems Modelling and Simulation	MIE360H1	3 / 2 / 1 / 0.5
Nuclear Reactor Theory and Design	MIE407H1	3 / - / 2 / 0.5

CURRICULUM

TECHNICAL ELECTIVES (CONTINUED):	COURSE CODE	LEC/LAB/TUT/WGT.
* Design of Innovative Products	MIE440H1	2 / 2 /2 /0.5
* Mechatronics Principles	MIE444H1	2 / 3 / - / 0.5
* Applied Fluid Mechanics	MIE414H1	3 / 3 / 1 / 0.5
Engineering Psychology and Human Performance	MIE523H1	3 / 3 / - / 0.5
Research Thesis	MIE498H1	- / - / 4 / 0.5
Research Thesis	MIE498Y1	- / - / 4 / 1.0
Fluids of Biological Systems	MIE508H1	3 / - / 1 / 0.5
Combustion and Fuels	MIE516H1	3 / - / 1 / 0.5
Engineering Analysis II	MIE563H1	3 / - / 2 / 0.5
Materials Selection in Design	MSE401H1	2 / 2 / 1 / 0.5
COMPLEMENTARY STUDIES ELECTIVE		
CS Elective	-	- / - / - / 0.5

WHAT IS A **(*)** COURSE?

Courses designated with an (*) are courses that have a strong emphasis on design. MIE students are to take one (*) designated course in their fourth year, either in the fall or winter semester

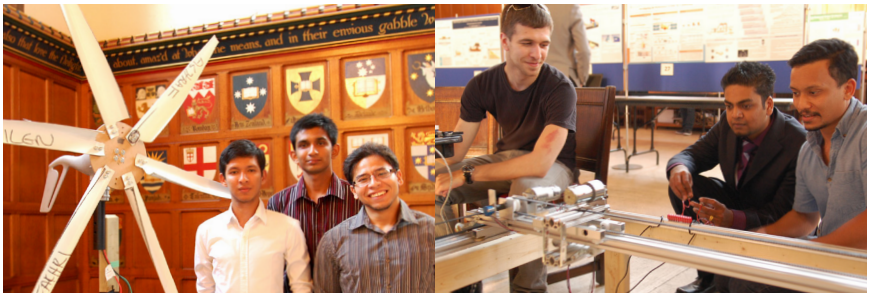
WINTER SESSION - YEAR 4

CORE REQUIRED COURSES	COURSE CODE	LEC/LAB/TUT/WGT.
Capstone Design	MIE491Y1	- / - / 4 / 1.0
TECHNICAL ELECTIVES (THREE OF):		
Imaging Case Studies in Clinical Engineering	BME520H1	2 / / 1 / 0.5
Medical Imaging	BME595H1	2 / 3 / 1 / 0.5
Biocomposites: Mechanics and Bioinspiration	CHE475H1	3 / - / 1 / 0.5
Environmental Impact and Rist Assesment	CIV440H1	3 / - / 1 / 0.5
Innovation and Manufacturing of Sustainable Materials	FOR424H1	2 / - / 1 / 0.5

CURRICULUM

TECHNICAL ELECTIVES (CONTINUED):	COURSE CODE	LEC/LAB/TUT/WGT.
Operating Systems	ECE344H1	3 / 3 / - / 0.5
Vibrations	MIE402H1	3 / 1 / 2 / 0.5
Waves and Applications in Non-Destructive Testing/Imaging	MIE433H1	3 / - / - / 0.5
* Thermal and Machine Design of Nuclear Power Reactors	MIE408H1	3 / - / 2 / 0.5
Microprocessors and Embedded Microcontrollers	MIE438H1	2 / 3 / - / 0.5
Biomechanics I	MIE439H1	3 / 2 / - / 0.5
* Design Optimization	MIE441H1	3 / 2 / - / 0.5
* Mechatronics Systems: Design and Integration	MIE443H1	2 / 5 / - / 0.5
Research Thesis	MIE498H1	- / - / 4 / 0.5
Research Thesis	MIE498Y1	- / - / 4 / 1.0
Applied Computational Fluid Dynamics	MIE504H1	3 / - / - / 0.5
Reliability and Maintainability Engineering	MIE469H1	3 / - / 2 / 0.5
* MEMS Design and Microfabrication	MIE506H1	3 / 1.5 / 1 / 0.5
Micro/Nano Robotics	MIE505H1	3 / 3 / - / 0.5
Fuel Cell Systems	MIE517H1	3 / - / 1 / 0.5
* Product Design	MIE540H1	3 / - / 1 / 0.5
Advanced Momentum, Heat and Mass Transfer	MIE550H1	3 / - / - / 0.5
Polymers and Composites Engineering	MSE432H1	3 / - / - / 0.5
HVAC Fundamentals	MIE507H1	3 / - / 2 / 0.5
* Advanced Manufacturing Technologies	MIE519H1	3 / - / - / 0.5
COMPLEMENTARY STUDIES ELECTIVE		
CS Elective	-	- / - / - / 0.5

MIE491/APS490: CAPSTONE DESIGN



The capstone design course provides an experience in engineering practice through a significant design project. Student teams meet specific client needs through a creative, interative, and open-ended design process.

Throughout the fourth year of your program, you will work with a faculty Supervisor and an industry Client on a Capstone Design Project. The Capstone Design Project provides you with an opportunity to work on a problem of real value to your Client. You will work with them and your Supervisor to define your project goals (within the scope of the problem identified), to decide how you will go about achieving these goals and to organize yourself to achieve them.

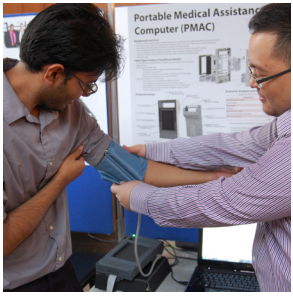
All capstone projects fall into one of the following categories:

STANDARD CAPSTONE PROJECT: These projects are sourced by Capstone Coordinators and each project is supervised by a single MIE Faculty member. Students are matched with projects in early September.

STUDENT-SOURCED CAPSTONE PROJECT: These projects are sourced by students through PEY, ESIP employer or other industry contacts. Students must form a team and find a single MIE faculty member to supervise their project. Students interested in this type of project must submit for approval by mid-June.

CAPSTONE INNOVATION PROJECTS: The projects are sourced by University or MIE faculty members. These projects entail the design of new and patentable technologies, and come along with high risk, high visibility, and high impact potential. Students are supervised by a single MIE faculty member. ***Competitive Selection**

MIE491/APS490: CAPSTONE DESIGN



MULTIDISCIPLINARY PROJECTS (APS490Y): These projects are sourced by capstone coordinators across the Faculty of Applied Science and the Multidisciplinary Capstone course coordinator. These projects require team members from at least two disciplines and are supervised by a single engineering faculty member. ***These projects have an accelerated self-selection and matching process, and require a competitive interview.**

INTERNATIONAL CAPSTONE PROJECTS: These projects are sourced by the International Capstone coordinator. In these projects, students work with University partners from China, Hong Kong and USA. ***Competitive Interview Required**

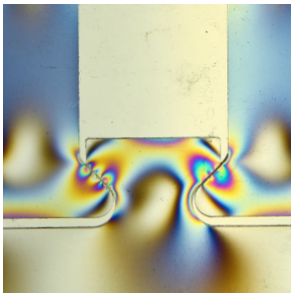
PROJECT SELECTION

For those interested in the **Multidisciplinary** or **International** Capstone Projects, you must submit your name by **Late February.**

For those interested in the **Student-sourced** projects, you must submit your project for review by **Mid June.**

For those interested in **Standard Capstone Projects** or **Capstone Innovation Projects**, you will be contacted mid-August to initiate the matching process.

MIE498H1/Y1: RESEARCH THESIS



The purpose of MIE498 is two-fold: to let students pursue a technical project of interest, and to improve their communication skills. **It is particularly useful for students thinking about graduate school and who want to learn more about engineering research**. Preparing a Progress Report and a Thesis gives students experience in technical writing, and making oral presentations about their projects helps students improve their oral communication skills. MIE498 is an important course in the curriculum because an engineering graduate should be able to present to prospective employers proficiently.

Formal approval to register for the fourth-year thesis must be obtained from the Undergraduate Office. **Enrolment in our thesis course is restricted to students with an overall average of 75%.** This criterion can be relaxed under exceptional circumstances with the written approval of the supervisor.

At the beginning of the term, students will establish with the supervisor, in writing, which reports are to be submitted, the content of these reports, their due dates, and the grading scheme. **The Thesis Topic Form, however, must be submitted to the undergraduate office by one week before the course add date and is not negotiable.** Notice that your supervisor may choose to follow these guidelines, but modifications may be desirable to best fit the nature of the thesis.

In the event your thesis project is not approved, as part of COS and on course selection day, please select a back-up approved curriculum technical elective. By submitting your thesis form on time, you will receive a decision before the course add deadline.

ENROLMENT PROCEDURE

1. Find a supervisor and a thesis topic: You can review the available thesis topics at **https://www.mie.utoronto.ca/research/student-research-opportunities/** or you can independently contact MIE faculty members who you are interested in working with. The website will be updated with project submissions as they become available.

MIE498: THESIS

2. Once you have found a faculty member who will supervise you, complete a thesis enrolment form. Ensure that your supervisor signs the form. This form is available at **https://www.mie.utoronto.ca/wp-content/uploads/2019/07/ThesisEnrollmentForm.pdf**

3. Attach a 1-page outline of the project you plan to undertake:

    » Explain how the research project builds upon one or more aspects of engineering science introduced in the student's academic program

    » Provide an estimate of a level of effort not less than 40 productive hours of work per term

    » Specify a deliverable in each term to be submitted by the last day of lectures

4. Submit your completed thesis enrolment form and 1-page out-line to the MIE Undergraduate Office by the following deadlines:

    » **Mid September** for a fall-term (MIE498H1F) or full year (MIE498Y1Y) thesis

    » **Mid January** for a winter-term (MIE498H1S) thesis

5. If approved, your research thesis will be added to your transcript on ROSI by the MIE Undergraduate Office. If it is not approved, we will notify you by email.

MANUFACTURING

Manufacturing Engineers do anything from tooling and machine design, to supply chain and operations management. It is common for manufacturing engineers to move around frequently between divisions of a company, overseeing many of their different processes. It is a truly international field, with demand around the world. Within Canada, average earnings of all employees in manufacturing are 22% higher than average earnings across all economic occupations in Canada.

STREAM COURSE

4F - MIE422H1S - AUTOMATED MANUFACTURING
Introduction to Computer Integrated Manufactuing. Definitions, terminology. Organization of manufacturing systems. Introduction to NC machines. Introduction to robotics. Types of robot motion. Robot kinematics. Jacobians, singularities. Robot motion trajectories. Interpolation, spline fits. Robot joint control. Flexible manufacturing systems, justification. Robot cell design. Group technology. Design of group technology cell. Programmable logic controllers.

SUGGESTED TECHNICAL ELECTIVES

MIE440 Design of Innovative Products
MSE401 Materials Selection in Design
FOR424 Innovation and Manufacturing of Sustainable Materials
MIE469 Reliability and Maintainability Engineering
MIE506 MEMS Design and Microfabrication
MIE519 Advanced Manufacturing Technologies
MSE432 Polymers and Composites Engineering

FIELDS OF APPLICATION

Automation, Manufacturing Management, Funamental Technology, Machine progamming, Product Design

LINKS

Canadian Society of Manufacturing Engineers
www.sme.org/smecanada

MECHATRONICS

Mechatronics engineers are on the forefront of innovation in robotics, medicine, manufacturing, transportation and much more. They often go though the entire design process, from defining the problem, coming up with solutions, to designing and building prototypes, and making production and maintanence plans. Knowledge of both electronics and mechanical principles are used to create innovative solutions to design problems. Automated manufacturing, drones, and driverless cars are examples of rapidly-growing fields that are leading to an increased demand for mechanical engineers.

STREAM COURSE

4F - MIE404H1S - CONTROL SYSTEMS I
Analysis of stability, transient and steady state characteristics of dynamic systems. Characteristics of linear feedback systems. Design of control laws using the root locus method, frequency response methods and state space methods. Digital control systems. Application examples.

SUGGESTED TECHNICAL ELECTIVES

AER307 Aerodynamics
AER525 Robotics
ECE344 Operating Systems
MIE444 Mechatronics Principles
MIE438 Microprocessors and Embedded Microcontrollers
MIE443 Mechatronics Systems: Design and Integration
MIE505 Micro/Nano Robotics
MIE506 MEMS Design and Microfabrication

FIELDS OF APPLICATION

Robotics, Sensing and Control Systems, Medical imaging, Computer aided and integrated manufacturing systems, Microcontrollers/PLCs, Mobile Apps

LINKS

Institute for Robotics and Mechatronics
irm.utoronto.ca

SOLID MECHANICS & DESIGN

Applications of solid mechanics are common in: the design of virtually every product; creating manufacturing processes and equipment; biomechanics as related to medicine and dentistry; many fields of graduate research. Solids mechanics engineers can really work in an mechanical field, because of their knowledge of the properties of physical objects.

STREAM COURSE

4F - MIE442H1F - MACHINE DESIGN
Introduction to the fundamental elements of mechanical design including the selection of engineering materials, load determination and failure analysis under static, impact, vibration and cyclic loads. Surface failure and fatigue under contact loads, lubrication and wear. Consideration is given to the characteristics and selection of machine elements such as bearings, shafts, power screws and couplings.

SUGGESTED TECHNICAL ELECTIVES

MIE440 Design of Innovative Products
MSE401 Materials Selection in Design
MIE402 Vibrations
MIE550 Advanced Momentum, Heat and Mass Transfer
CHE475 Biocomposites: Mechanics and Bioinspiration
MIE441 Design Optimization
MIE469 Reliability and Maintainability Engineering
MIE506 MEMS Design and Microfabrication
MIE540 Product Design

FIELDS OF APPLICATION

Geomechanics, Infrastruction, Mechanical Design, Manufacturing, Biomedical, Materials Science, Microelectronics

LINKS

The Canadian Society for Mechanical Engineering
www.csme-scgm.ca

The Society of Automotive Engineers
www.sae.org

ENERGY & ENVIRONMENT

The energy industry is one of the biggest in Canada , dominated by oil and gas, nuclear power and electricity. Environmental engineers play a pivotal role in improving polluted environments, designing facilities that directly affect our modern economy, public health and safety, and designing environmentally-responsible products and processes. Their knowledge of physics, chemistry, and biological processes allows them to address problems such as protecting air, water and land quality; providing safe drinking water; treating and disposing of industrial wastes; preventing environmental problems by designing "cleaner" manufacturing processes; and developing alternative energy sources. Energy and Environmental Engineers are widely sought after by employers in both industry and government.

STREAM COURSE

4F - MIE515H1 - ALTERNATIVE ENERGY SYSTEMS
This course covers the basic principles, current technologies and applications of selected alternative energy systems. Specific topics include solar thermal systems, solar photovoltaic systems, wind, wave, and tidal energy, energy storage, and grid connections issues.

SUGGESTED TECHNICAL ELECTIVES

MIE407 Nuclear Reactor Theory and Design
MIE516 Combustion and Fuels
CIV440 Environmental Impact and Risk Assessment
FOR424 Innovation and Manufacturing of Sustainable Materials
MIE408 Thermal and Machine Design of Nuclear Power Reactors
MIE507 Heating, Ventilating, and Air Conditioning (HVAC) Fundamentals
MIE517 Fuel Cell Systems
MIE550 Advanced Momentum, Heat and Mass Transfer

FIELDS OF APPLICATION

Power generation, Automotive, Aerodynamics, Fluid pumping systems, Manufacturing, Electronics, MEMS systems, Environmental assessment.

LINKS

Association of Energy Engineers	**www.aeecenter.org**
Institute for Sustainable Energy	**energy.utoronto.ca**

BIOENGINEERING

Biomedical engineers work to create solutions to biological problems. They can work with chemists and doctors in reseach labs, design medical machinery, train physicians, or work on advanced technology such as artificial organs, medical imaging devices, drug delivery systems. Biomedical engineering jobs are expected to increase by 31.4% over the next seven years, more than double the average predicted rate in other fields.

STREAM COURSE

4F - MIE520H1F - BIOTRANSPORT PHENOMENA
Prerequisite: MIE312H1F
Application of conservation relations and momentum balances, dimensional analysis and scaling, mass transfer, heat transfer, and fluid flow to biological systems, including: transport in the circulation, transport in porous media and tissues, transvascular transport, transport of gases between blood and tissues, and transport in organs and organisms.

SUGGESTED TECHNICAL ELECTIVES

MIE414 Applied Fluid Mechanics
MIE508 Fluids of Biological Systems
BME520 Imaging Case Studies in Clinical Engineering
BME595 Medical Imaging
CHE475 Biocomposites: Mechanics and Bioinspiration
MIE433 Waves and Their Applications in Non-Destructive Testing/Imaging
MIE439 Biomechanics I
MIE504 Applied Computational Fluid Dynamics
MIE523 Engineering Psychology and Human Performance

FIELDS OF APPLICATION

Bioinformatics, Biotechnology, Instrumentation and Diagnostics, Medical Devices, Therapeutics, Biomedical Suppliers

LINKS

Institute of Biomaterials and Biomedical Engineering (IBBME)
ibbme.utoronto.ca

Club for Undergraduate Biomedical Engineering (CUBE)
cube.skule.ca

DEGREE REQUIRMENTS

DEGREE EXPLORER degreeexplorer.utoronto.ca

Degree Explorer is a planning tool designed to help students and advisors evaluate academic progress towards completion of requirements for graduation. It is not a transcript. It allows you to map out your degree and can help you determine if you are on track. Just because you are eble to enrol in a course on ACORN does not mean it will fullfill your degree requirements.

TO GRADUATE, YOU NEED

- All Core and Stream Courses
- 2.0 CS Credits (1.0 or more must be HSS)
- 0.5 Natural Science Credits
- 2.0 Technical Elective Credits
- 600 hours of professional experience, or PEY credit
- At least one design course

COMPLEMENTARY STUDIES (CS) AND HUMANITIES & SOCIAL STUDIES (HSS)

To graduate, you must take 2.0 credits in complementary studies, of which at least 1.0 credits are HSS courses. 0.5 credits = 1 half year course. These are typically taken in second and fourth year, or in the summer (have to pay extra tuition). For a list of faculty approved elective lists, please consult the following links. You can also request other A&S courses to act as a substitute:

HSS Courses https://undergrad.engineering.utoronto.ca/academics-registration/electives/humanities-social-science-hss-electives/
CS Courses https://undergrad.engineering.utoronto.ca/academics-registration/electives/complementary-studies-cs-electives/

TECHNICAL ELECTIVES

- One in first semester in 4th year, three in second semester in 4th year
- Select from list of approved electives
- Can apply for another course to substitute for a Technical Elective
- Can substitute at most two technical electives

PRACTICAL EXPERIENCE REQUIREMENT (PER)

- Minimum of 600 hours to graduate
- Work should support professional career of student
- Form must be filled out and submitted to MIE Undergrad Office
- If you do PEY, you do not need to submit PER form

NATURAL SCIENCE ELECTIVES

The curriculum has 3 pre-approved Natural Science electives which are: CHE353, CIV220, and CIV300. There is also an extended the list of approved natural science electives. **https://undergrad.engineering.utoronto.ca/wp-content/uploads/2019/07/2019-NS-Website-List-as-of-072419.pdf**

ENGINEERING MINORS & CERTIFICATES

In addition to academic programs in Core 8 subjects/TrackOne and Engineering Science, undergraduate Engineering students may pursue a number of minors and certificates that add breadth and depth to their academic careers.

To obtain a minor, students must take six (6) courses in a particular field. A certificate requires three (3) courses. There are many minors and certificates, which are listed and detailed at **uoft.me/engminors.** Enroling for a minor puts it on your Degree Explorer, which can help you plan. You can de-enrol at any point.

HOW DO I ENROL IN A MINOR?

Each minor has a specific enrolment form for you to complete and submit to the Cross-Disciplinary Programs Office. Please visit:

uoft.me/engminors

Please note that enroling in a minor does not guarantee you a spot in any of the engineering minor electives, as they are open to everyone. To avoid disappointment, plan ahead and select courses 6 AM on course selection days. You are responsible for making sure you fulfill the requirements.

I DIDN'T GET INTO THE COURSES I WANTED TO, AND I'M WORRIED I WONT FINISH MY MINOR BEFORE GRADUATION. WHAT DO I DO?

Due to popularity, many engineering minor courses are offered in the summer. You are also welcome to complete those courses following graduation, it just may not appear on your degree until later. You can also visit the Cross-Displinary Programs Office to de-enrol you in a minor.

WILL MY HSS/CS ELECTIVES BE ADDED TO MY TIMETABLE AUTOMATICALLY? WHAT IF I AM ENROLED IN A MINOR THAT REQUIRES THAT COURSE?

No, you must add them yourself on course selection days. Enroling in a minor does not guarantee you a spot in its required courses.

I'M NOT SURE WHICH ELECTIVES TO TAKE.

The Arts & Science Student's Union puts together a publication called the anti-calendar, which provides honest student feedback about many arts & science elective courses offered. **http://assu.ca/anti-calendar.**

ENROLMENT AND REGISTRATION

OVERLOADS

- To take more than 5 courses in a semester, must get approval from undergrad office
- Need to have 75%+ average in previous semester or extenuating circumstances

"EXT" OR EXTRA COURSES

- If taking a course not needed for your degree, you can apply to designate it as EXT
- Mark will not count towards your GPA, but till shows on transcript
- Credit can be used for minors/certificates
- Deadline to designate EXT is the same as drop deadline

FAILED COURSES

If you have failed a core curriculum course, you must re-take it at the next available opportunity. Many first year engineering courses are offered during the summer. If you were unsuccessful in a second or third year course that is a prequisite for an upper level course, you must retake the prequisite course first. To add a core curriculum course, submit the **Course Request Form (https://www.mie.utoronto.ca/programs/undergraduate/forms-policies/)** to the Undergraduate Office by one week before the add course deadline. To add a failed stream course, HSS/CS elective, or natural science elective, you may do so yourself on the course selection dates.

ENROLMENT & REGISTRATION QUICKLINKS

COURSE FINDER — coursefinder.utoronto.ca
- Timetable, enrolment, waitlists

DEGREE EXPLORER — degreeexplorer.utoronto.ca
- Plan and check on track to graduate

ENGSOC TIMETABLE BUILDER — schedule.skule.ca
- Visual timetable builder

ARTS & SCIENCE ANTI-CALENDAR — assu.ca/anti-calendar
- Course descriptions and reviews

ENGINEERING EMPLOYMENT RESOURCES

JOB SEARCH SUPPORT

University of Toronto Engineering Career Centre
engineeringcareers.utoronto.ca

University of Toronto Career Centre
www.careers.utoronto.ca

WEBSITES

EngineeringJobs.com
www.engineerjobs.com/jobs/canada/ontario/toronto.php

EngineeringCareers
https://www.engineeringcareers.ca/jobs/toronto-on/

Careerbuilder
www.careerbuilder.ca/Jobs/Toronto/Keyword/Engineering

UofT Career Centre Graduating Students Employment Service
www.careers.utoronto.ca/gradBeyond/gses.aspx

LinkedIn
www.linkedin.com/job/guest

Talent Egg
talentegg.ca/career-guides/engineering

Internships for New Grads
(monthly stipend of $2,016.67 before required deductions)
www.careeredge.ca

RECRUITING AGENCIES FOR ENGINEERS

Randstad
www.randstad.ca/engineering

Hays
www.hays.ca/enhance-your-career

MIE UNDERGRADUATE OFFICE

Room 109, Mechanical Building, 5 King's College Rd.

EMAIL undergrad@mie.utoronto.ca

PHONE (416) 978 6420

FAX (416) 978 7753

HOURS Monday - Friday, 9 AM to 4 PM

WWW.MIE.UTORONTO.CA