

ME Courses and Options



Mechanical & Industrial Engineering
UNIVERSITY OF TORONTO

Fourth Year (ME) - Fall

Core

- MIE491Y Capstone

Stream Course (2)

- Manufacturing: MIE422 Automated Manufacturing
- Mechatronics: MIE404 Control Systems I
- Solid Mechanics & Design: MIE442 Machine Design
- Energy & Environment: MIE515 Alternative Energy Systems
- Bioengineering: MIE520 Biotransport Phenomena

CS Elective (1)

Tech Elective (1)

- AER307 F Aerodynamics
- AER525F Robotics
- ECE344F Operating Systems
- MIE343F Industrial Ergo and the Workplace
- MIE360F Systems Modelling and Simulation
- MIE407F Nuclear Reactor Theory & Design
- *MIE414F Applied Fluid Mechanics
- *MIE440F Design of Innovative Products
- *MIE444F Mechatronics Principles
- MIE498F/Y Research Thesis
- MIE508F Fluids of Biological Systems
- MIE516F Combustion and Fuels
- MIE523F Eng Psych & Human Performance
- MIE563F Engineering Analysis II
- MSE401F Materials Selection in Design II



Fourth Year (ME) - Winter

Core

- MIE491Y Capstone

Tech Elective (3)

- BME595 Medical Imaging
- CHE475 Biocomposites: Mechanics and Bioinspiration
- CIV440 Env Impact and Risk Assessment
- ECE344 Operating Systems
- FOR424 Innovation and Manufacturing of Sustainable Materials
- MIE402 Vibrations
- *MIE408 Thermal and Machine Design of Nuclear Power Reactors
- MIE433 Waves and their applications in Non-Destructive Testing and Imaging
- MIE438 Microprocessors and Embedded Microcontrollers
- MIE439 Biomechanics I
- *MIE441 Design Optimization

Tech Elective ...

- *MIE443 Mechatronics Systems: Design and Integration
- ME469 Reliability and Maintainability Eng
- MIE498S/Y Research Thesis
- MIE504 Applied Computational Fluid Dynamics
- MIE505 Micro/Nano Robotics
- *MIE506 MEMS Design and Microfabrication
- MIE507 (HVAC) Fundamentals
- MIE517 Fuel Cell Systems
- *MIE519 Advanced Manufacturing Technologies
- MIE540 Product Design
- MIE550 Adv Momentum, Heat and Mass Transfer
- MSE432 Macromolecular Materials Eng
- MSE442S Surgical and Dental Implant Design

CS Elective (1)

COS Deadline: Feb. 12 – Mar. 2



MIE498H/Y - Research Thesis

An opportunity to conduct independent research under the supervision of a faculty member in MIE. The proposal must:

1. Explain how the research project builds upon aspect(s) of engineering science introduced in academic program.
2. Provide an estimate of a level of effort not less than 130 productive hours of work per term.
3. Specify a deliverable in each term to be submitted by the last day of lectures.
4. Be signed by the supervisor.
5. Be received by the Undergraduate Office one week prior to the last add day.



Minors

Advanced Manufacturing

Bioengineering

Environmental Engineering

Sustainable Energy

Engineering Business

Robotics and Mechatronics

Biomedical Engineering

Nanoengineering

More information:

<http://undergrad.engineering.utoronto.ca/academics-registration/minors-certificates/>



Mechanical & Industrial Engineering
UNIVERSITY OF TORONTO

Additional Resources for COS

- [COS Handbook](#)
- [Enrollment & Registration Checklist](#)
- [Academic Calendar](#)
- [MIE Undergraduate Office \(MC109\)](#)