

# Welcome to Mechanical Engineering

2024 – 2025

We hope you will find your time with us both  
challenging and enjoyable.

Price Faculty  
of Engineering



University  
of Manitoba

# Traditional Territories Acknowledgment

The University of Manitoba campuses are located on original lands of Anishinaabeg, Ininiwak, Anisininewuk, Dakota Oyate and Denesuline, and on the National Homeland of the Red River Métis.

We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of Reconciliation and collaboration.

# Mechanical office contacts (1 of 2)

## Department heads

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Department Head

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# Mechanical office contacts (2 of 2)

## Administrative staff

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[All  
mechanical  
faculty and  
staff  
contacts](#)

# Registration information (1 of 4)

## Step 1: Download the following documents

- [Mechanical model program fall 2024 \(PDF\)](#): The model shows all courses required to complete the Mechanical Engineering Program and should be used to plan your schedule.
- **Mechanical five-year program [Model A](#) and [Model B](#) (fillable PDFs)**: Check off the courses you have completed to date in both models. This will show you which model is best for you to follow so you can begin your plan.

Note: The model program can be used to track your progress through your degree.

[Department of Mechanical Engineering website link](#)

[Mechanical student advising website link](#) – PDFs and forms found on this site.

# Registration information (2 of 4)

## Step 2: Create a fall and winter timetable

- Schedule the second-year courses indicated in the model and fill in the extra spaces with your remaining first-year courses. **All first-year courses should be completed before Fall 2025.** Some first-year courses are also offered in summer session.
- We are a prerequisite driven program and the courses are scheduled in the Model Program to ensure fastest time to completion.
- Students must take a minimum of nine credit hours per term which is 60% of a full course load and considered full-time. Any fewer requires department permission.

[Timetable planning form \(PDF\)](#)

[Academic Learning Centre](#)

# Registration information (3 of 4)

## Step 3: Check your registration date and time on or after June 28, 2024

- Login to Aurora, click on the Enrolment & Academic Records tab, then click on Registration & Exams and Registration Time & Status.
- Registration for most returning students is July 18 – August 6, 2024.
- Check in Aurora to ensure you do not have any [holds](#) on your account that could block registration.
- Register for both fall **and** winter terms when your registration time begins. Tuition for winter term courses is not due until the new year.

# Registration information (4 of 4)

## Step 4: Register for courses

- Use the [Aurora Student Registration System](#) to register for courses
- New to Aurora? Review the [Steps to Registration website](#) for lots of helpful information!

If you encounter any issues when registering, email [Jenifer.Romaniuk@umanitoba.ca](mailto:Jenifer.Romaniuk@umanitoba.ca) immediately for assistance.

Please include your full name and student number in your message.



# UM Achieve

- UM Achieve provides you with your degree progression information.
- It looks at your courses you have completed and what you still need to complete to meet the requirements of your program.
- Run an audit after you register for your courses to check your progress.
  - If you think a completed course may be missing from your audit, email [Jenifer.Romaniuk@umanitoba.ca](mailto:Jenifer.Romaniuk@umanitoba.ca), some courses need to be manually approved by an advisor to work in the audits.



[UM Achieve link](#) – includes login and tutorials

# Program Requirements (1 of 3)

## Indigenous Knowledge course

- Mechanical Engineering students are required to take at least one (3 hour) course from the approved list of Indigenous Knowledge courses.
- The Mechanical models list this course in the winter term of second year, but students may take it any term as scheduling allows.

ENG 4100\* - Contemporary Topics in Eng. Practice (4)  
INDG 1200 - Indigenous Peoples in Canada (6)  
INDG 1220 - Indigenous Peoples in Canada Part 1 (3)  
INDG 1240 - Indigenous Peoples in Canada Part 2 (3)  
INDG 2012/  
HIST 2010 - Indigenous History in Canada (3)  
INDG 2020/  
HIST 2020 - The Metis in Canada (3)  
POLS 2802 - Introduction to Indigenous Politics (3)

ENG 4100\* may be accepted when the course content satisfies the requirements for an Indigenous course.

Note: ENG 4100 T03 – **Decolonizing and Indigenizing Engineering**, offered winter term 2024, is an excellent course for engineering students!

# Program Requirements (2 of 3)

## Technical Electives



- Mechanical Engineering students are required to take five technical elective courses.
- The technical elective courses offered vary from year to year and may have limited enrollment.
- Students are encouraged to discuss their program with academic staff for advice regarding the best choice of electives for their needs.
- [Mechanical Technical Electives \(PDF\)](#)

# Program Requirements (3 of 3)

## Complementary Studies Electives



- Complementary electives are required to give students exposure to topics outside the fields of science and engineering.
- Mechanical Engineering students are required to take nine complementary studies electives.
- This includes the [Written English](#) (W) requirement and the [Indigenous knowledge course](#).
- Any course at the 100-level or above from the faculties of Arts or Management can be used as a complementary studies elective.
- [Complementary Studies Electives \(PDF\)](#)

# Options and Streams



## Why choose an Option or Stream?

- Choosing a Mechanical Option or Stream will allow students a greater ability to direct their program toward an area of interest.
- It will give potential employers an understanding of the graduate's extent of training and career aspirations.
- Note: completing an Option or a Stream is **not** mandatory.

### Option

- Aerospace
- To complete an Aerospace Option, students must complete all three courses from List A (on the Technical Elective Course list PDF) and a selection of two courses from List B.

### Stream

- Aerospace, Manufacturing, Materials, Solid Mechanics, Thermofluids.
- To complete any of the five program streams, students must complete three technical elective courses from one of the streams of interest and two technical electives courses from any other area.





# Minors

- A minor is something extra and not required as part of your Mechanical Engineering Program.
- Minors can be completed in the following areas:
  - Arts
  - Computer Sciences
  - Earth Sciences (formerly Geological Sciences minor)
  - Leadership for Business and Organizations
  - Management
  - Math
  - Music
  - Recreational Studies
- If you are thinking about pursuing a minor talk to your advisor for more information.



# Assessments (1 of 2)

- At the end of each term in which students receive a final grade in a minimum of six credit hours, their Term Grade Point Average (TGPA) is assessed.
- **Good academic standing:** TGPA of 2.0 or higher
- **Academic probation:** first time TGPA drops below 2.0. Must meet with an academic advisor who will assign remedial actions.
- **Required to withdraw:** second time TGPA drops below 2.0. Students cannot take engineering courses for a period of eight months. To be reinstated following the suspension period, the student must submit a written request to the Associate Dean of Undergraduate Programs.
- **Ineligible to proceed:** third time TGPA drops below 2.0.
- **Note:** Poor assessments do **not** need to be in consecutive terms. These rules apply to a student's entire time in the program.

# Assessments (2 of 2)

## The 75% rule

- Students will become **ineligible to proceed** in engineering if at any time the ratio of credit hours passed to total credit hours attempted for that student drops below 75% and the student has attempted a minimum of 72 credit hours.
- “C” is the minimum passing grade in engineering.



# Academic integrity

The University of Manitoba takes academic integrity seriously. The University defines academic integrity as a commitment to six fundamental values:

- Honesty
- Trust
- Fairness
- Respect
- Responsibility
- Courage

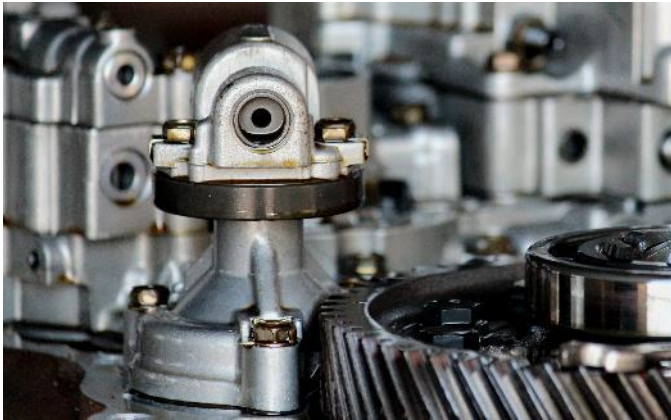
Please take the time to review what can be considered [academic misconduct](#)

- Plagiarism
- Cheating
- Inappropriate collaboration
- Duplicate submission
- Personation
- Academic fraud



# Co-Operative Education Program

**Complement your academic study with paid work experience in the engineering profession!**



- Co-op orientations are coming up in the fall. Watch your UM email for details and plan to attend one of the sessions to learn more.
- Co-op registration requires that all 13 Preliminary Year courses are completed before your first work term.
- [Co-op website link](#)

# Student Experience

**Join a team or group to enrich your educational experience!**

- From competition teams to student council, there's a place for everyone!
- Meet new people
- Learn new skills
- Build your resume
- [University of Manitoba Engineering Society \(UMES\)](#)
- [Other student groups](#)



# Resources (1 of 3)

## Supports for academic success

If you have questions about course material, be sure to utilize the available resources



- Professor's weekly office hours
- Teaching Assistants (TA's)
- [Academic Learning Centre](#) (tutoring and study skills)
- [Math Help Centre](#)
- [UMES Tutor Registry](#) – Nimbus (some services have fees)

# Resources (2 of 3)

## Supports for personal success

[Everything you need to thrive!](#) Includes information about:

- Accessibility services
- Financial supports
- Counselling resources
- Health and wellness
- Information for new UM students
- Information for Indigenous students
- Information for International students



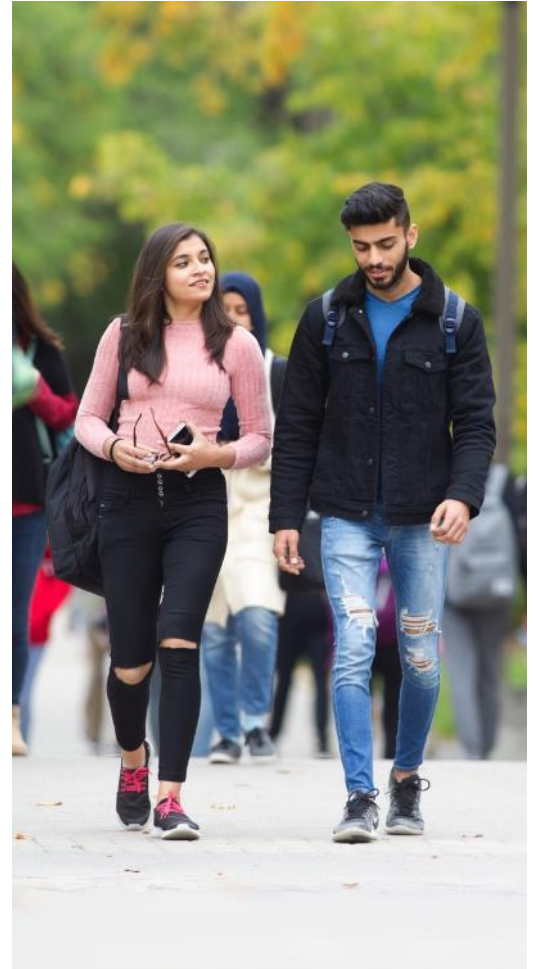
[Active Living Centre](#) – A gym membership is included in your student fees.



# Resources (3 of 3)

## Other useful links

- [Price Faculty of Engineering student policies](#)
- [Final exam schedules, policies and procedures](#)
- [Grades](#)
- [Important dates and deadlines](#)
- [Online academic calendar](#)
- [Registration dates and tips](#)



# Frequently asked questions

- **How long do I have to complete my degree in engineering?**
  - Students have seven years to complete their degree from the time they are admitted to their department.
- **How do I enroll as a student through Engineers Geoscientists Manitoba (EGM)?**
  - Visit the EGM website and follow the instructions to apply.
- **How do I apply for a scholarship in engineering?**
  - Visit the Awards and scholarships website for information.
- **May I complete a double minor in engineering?**
  - Yes, follow the instructions in the academic calendar and take the appropriate courses towards each minor. Let your advisor know your plans.
- **May I complete a double major in engineering?**
  - No, you could graduate with a second undergraduate degree, but it makes more sense to pursue a master's degree at that point.
- **May I complete more than one Option or Stream?**
  - Yes, however, you may not use the same course in both an Option and a Stream. Courses must be independent of each other in all concentrations.

# Thank you!

## Good luck with registration!



[umanitoba.ca/engineering](https://umanitoba.ca/engineering)

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