MME 2026 - 2027 Graduate Handbook



Associate Chair's Message

On behalf of all faculty, staff and students participating in graduate programs with the Department of Mechanical and Mechatronics Engineering (MME), I am very pleased to welcome you to the University of Waterloo. We hope your time and efforts here will be productive, enjoyable and very memorable. You are now a member of a large and dynamic graduate community that first began in the 1960's. With the number of graduate students over 360, MME has one of the largest graduate programs in Canada including course-based MEng and research-based (MASc and PhD) degrees.

MME has two graduate research programs, MASc and PhD, one Course-Based program, MEng. The department has a broad range of expertise across all areas of mechanical, materials and mechatronics engineering organized into 5 areas of specialization namely Automation and Controls, Fluid Mechanics, Materials Engineering and Processing, Solid-body Mechanics and Mechanical Design and Thermal Engineering. Since 2009, in addition to the regular research programs, MME has also offered a Nanotechnology graduate program (MASc and PhD) with courses available from different engineering departments and the faculty of Science.

This MME Graduate Handbook includes important information on our graduate programs, our faculty and university services, and the current M.Sc., Ph.D., MEng degree requirements for MME graduate students. The handbook is revised each year and is available to all new graduate students. Please read the handbook as soon as possible because it will likely answer many of your questions. Instructors and staff will expect you to be familiar with the handbook and will refer to it repeatedly as you proceed through the program.

Please note that the handbook is an informational supplement for our students and is not a replacement for the University of Waterloo Graduate Calendar. The Graduate Calendar dictates the formal policies concerning registration, fees, grading, degree requirements, etc. The Graduate Calendar can be found on the Graduate Studies & Postdoctoral Affairs Office (GSPA) website. https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/home

Through our graduate orientation session, we will provide information to make your transition to graduate school and the University of Waterloo as smooth as possible. You are strongly encouraged to attend the campus-wide orientation for all University of Waterloo graduate students.

We are proud of the hundreds of MME graduate students who have earned degrees and now apply their talents and knowledge in a wide array of fields and places throughout the world. Our faculty, staff, and students have been nationally and globally recognized for their accomplishments in teaching, research and service. Congratulations on becoming part of such a proud tradition of academic achievement.

I look forward to meeting you online and in person during your stay with us in MME. My colleagues and I hope we can make your graduate studies a rewarding and successful experience. Congratulations on your admission and best wishes for your success during your time with us.

Jean-Pierre Hickey

Professor and Associate Chair for Graduate Studies

Staff Support Contacts

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- **Karen Schooley**
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- **Tanya Yoworski**
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- **Tina Cochrane**
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- **Jean-Pierre Hickey**
  - Graduate Associate Chair

Important Information for New Students

Academic calendar dates and deadlines

The Calendar of Events and Academic Deadlines. summarizes the important dates for each term. Information about holidays, convocations and study breaks is also included. Information on payment instructions and graduate student fees can be found on the Finance website

Student offices and key permits

Graduate students may be given a desk or office space. To receive a student office or key permit, please email the Space Coordinator mme-space@uwaterloo.ca
You must complete the Graduate Safety Training before a key is issued.

Forms All Graduate engineering forms can be found here: https://uwaterloo.ca/the-centre/forms-and-official-documents/forms-graduate-students

Payroll procedures

If you are receiving a Teaching Assistantship, you must complete a number of forms (e.g., federal and provincial tax worksheets, direct deposit, etc.) before you will be paid. Your pay will be deposited directly into your bank account. Please contact the MME TA Support if you have any questions. You will receive an onboarding email from HR, which will contain the information that is required of you to submit. This must be completed in a timely manner in order to receive your pay.

For more information, please see Workday website 'User Guide for New Employees'.

Direct deposit information: https://uwaterloo.ca/quest/help/students/how-do- i/view-or-update-my-banking-information

Registration and Tuition Payment Procedures

1. Your up-to-date account information is available on QUEST. Enrolment and fee arrangement information is available on the Finance website. In addition, the Graduate Studies Office website contains contact links to information for the following:
   i. Calendar of Events and Academic Deadlines
   ii. Finance Office – Student Accounts
   iii. Human Resources – Payroll
   iv. WatCard Office
   v. International Student Office
   vi. Graduate Student Association

2. Once fees are paid you can concentrate on selecting your course(s) for the term. The deadline for this is six weeks after the start of classes. Remember, you will not receive credit for the course(s) if you are not officially registered by the deadline. New students must register for any courses outlined in their admission letter. Each student is expected to consult with their

3. faculty advisor regarding course selection each term. If you need permission to enrol in a graduate course, please start attending classes right away so you don't fall behind while you're waiting for approval.

4. Familiarize yourself with the regulations in the current on-line graduate calendar and check anything you are unsure of with the Graduate Coordinator. ***By registering and paying fees, students assume responsibility for knowing the regulations and pertinent procedures as set forth in this handbook and the University of Waterloo Graduate Calendar.*** Ultimately, it is your responsibility to ensure that you have met coursework and other requirements to complete your degree. Your faculty advisor, the graduate officer (through review of your annual progress reports) and the Graduate Coordinator are all there to assist you in this process. Some of these regulations are listed below.

Notes: Students are normally expected to maintain continuous registration (in each of the three terms each year). Failure to register and pay fees each term will mean you will have to apply for readmission. Special permission is required from the Faculty Associate Dean and the Graduate Studies & Postdoctoral Affairs Office to change your registration status from full-time to part-time (or vice versa) or to go inactive, etc. If you do request inactive status, you must seek approval from your advisor, the Graduate Officer, and the Associate Dean. Requests for inactive status will not always be approved.

University Policies Regarding Courses

Course add/drop dates

i. See GSPA pages on course enrolment and course drop.

Incomplete Courses

ii. See GSPA guidelines on incomplete grade status (INC) and failure to complete (FTC). A failing grade in any course will necessitate a review of the candidate's status by the Department and may result in the requirement to withdraw from the program.

iii. Please note that the Engineering passing grade is 65

Auditing courses

i. At present, you are not able to add an AUDIT course to your Quest record. You must obtain permission from the course instructor and approval from the Graduate Officer via a course drop/add form. In addition, to regular attendance in the course, the instructor has the discretion to require class participation, preparation, and sometimes completion, of assignments and/or examinations. If you find yourself in difficulty while auditing a course, you should arrange to drop the course from your schedule before the exam period. An NMR or DNW (did not write exam) cannot be given for an Audit course. Should you fail to receive an "AUD", the course will automatically be deleted from your transcript.

Taking courses at other Ontario universities

iv. See the GSPA pages on the Ontario Visiting Graduate Student plan (OVGS).

Other Important Policies and Regulations

Degree time limits and extensions

- All requirements for the MASc, MEng and PhD. degrees in Mechanical and Mechatronics Engineering must normally be completed within the following time periods (beginning with the term of initial registration), as stipulated by the University Senate:
  MASc - Full-time (FT): **6** terms (2 years); Part-time (PT): **15** terms (5 years).
  MEng - Full-time (FT): **6** terms (2 years); Part-time (PT): **15** terms (5 years).
  Doctorate - Full-time (FT) from master's' level: **12** terms (4 years); Part-time (PT): **21** terms (7 years).

  Transitional students – time limits depend on their particular program requirements.

  For computational purposes, a term of full-time enrolment is counted as 1.0, a term of part-time enrolment is counted as 0.5, and an inactive term is counted as 0.

  Master's: Normally, full-time master's students complete most or all of their course work during the first two terms they are registered in the program (normally the Fall and Winter terms) and are encouraged to complete their thesis proposal by the third term (Spring term). Please note that these are recommendations only; timelines may vary due to the multi-disciplinary nature of our School. It is ultimately up to your supervisor to provide guidance on an appropriate timeline for your project.

  Doctoral: Normally, full-time doctoral students should complete their coursework by the end of the third term. They should normally begin their comprehensive examinations during the third term and have their oral examination completed sometime in the 4th term (Note: the Graduate Calendar stipulates that the comprehensive examination requirement must be completed within seven academic terms after initial registration). Once a student has successfully completed their comprehensive examination they may continue onto the proposal writing and defense.

Student advising and monitoring of progress

All research students (MASc, PhD) are assigned an academic or faculty "advisor" when they enter the program. Together, the student and their advisor plan out course selection and set targets for completion of coursework and other degree requirements. While the advisor often becomes the "supervisor" for the thesis, this is not always the case. When a student chooses to work with a different faculty member to supervise their thesis, this individual will also become their general academic advisor. A "Change of Supervisor" form must be completed if you change supervisors at any point during your program. Forms can be obtained by visiting the GSPA website.

Students are expected to meet with their faculty advisors/supervisors on a regular basis. Your advisor should be regularly kept apprised of your progress and any problems arising (due to financial, health or other personal circumstances). The student and faculty advisor should also feel free to consult with the Graduate Officer on any of these matters.

The Graduate Student Activity Report (GSAR) is a progress report to be completed by the student every term and sent to their supervisor for comments and term rating. The GSAR is used to award students that published journals and conference papers the reported term.

Academic Integrity in Research and Scholarship

Engineering is committed to the highest standards of integrity in research and scholarship by faculty, students, and staff. As a post-secondary institution, the value of the degrees the university awards deserving students at the end of their studies is dependent on the legitimacy of the education these students earn. A degree is valueless without integrity.

Every new UW graduate student must complete an online academic integrity module in their first academic term. Regardless of the term when the new student starts he/she will be automatically enrolled in the academic integrity module in LEARN. The student then has eight weeks to review the module and successfully achieve 75% to pass an academic integrity quiz.

Students who do not achieve 75% will have to retake the quiz until they attain the minimum score. Students who do not comply within the 8 weeks will be contacted by the Office of Academic Integrity and advised to complete the module within 14 days. Students who do not complete the module will not be allowed to enrol in future courses until they have completed this mandatory credit.

Completing the online Academic Integrity module alone does NOT meet the necessary milestone requirement. The Writing Centre also provides resources to help you recognize and avoid plagiarism through one-on-one sessions and a workshop on paraphrasing and summarizing other people's work.

Mandatory Training

Graduate students, faculty and staff, are considered employees and must take safety courses to ensure proper training. **Mandatory training for graduate students**

Policies on Student Grievance and Academic Disciplines

Graduate student who has a question or complaint is advised to follow normal administrative channels: 1) the student's academic advisor/supervisor, and 2) the Graduate Officer. Do *not* go directly to the Department Chair/Director, the Associate Dean of Graduate Studies and/or Associate Provost of Graduate Studies. The Graduate Officer for the program will consult these individuals as required. Student appeal procedures are set out in the Student Grievance Policy # 70.

If you have a grievance or question about an academic decision, you are strongly encouraged to first speak informally with the course instructor and/or graduate officer.

Policy #71, Student Academic Discipline Policy, should also be referred to. Policy Guidelines of Graduate Student Support and other policy excerpts are listed in the document regarding UW Policies, Procedures and Committees.

Financial Assistance

For a list of all available funding, scholarships, and awards to apply to, please see here: Awards Database

Description of Graduate Research Programs and Degree Requirements

See the Graduate Student Academic Calendar for all academic degree program requirements

The Accelerated Master's program allows undergraduate students at Waterloo to fast track a Master of Applied Science (MASc) degree at the University of Waterloo.

Financial Policies

Support for graduate students

- MME Teaching Assistant (TA) https://uwaterloo.ca/current-graduate-students/awards-and-funding/teaching-assistantships-ta-and-research-assistantships-ra/graduate-student-unionization-understanding-basics
- Graduate Research Scholarship (GRS)

  The Graduate Research Scholarship is guaranteed for all research students (MASc and PhD) as outlined in their offers of admission.

  Any questions regarding payment of the GRS can be directed to the Graduate Funding Coordinator
- Additional Scholarships

  International student funding
  - https://uwaterloo.ca/current-graduate-students/awards-and-funding/international-student-funding

  Scholarship Competition Recourses
  - https://uwaterloo.ca/current-graduate-students/awards-and-funding

Undergrad course teaching (Sessional instructor)

Doctoral students are encouraged to participate in teaching at least one undergraduate course at some time during their program of study. *This will generally be a third- or fourth-year course in the student's area of research interest*. While undergraduate teaching is negotiated between the student and Chair/Director, and is based on the undergraduate program needs as well as graduate student interest. You may wish to let the Graduate Officer and/or the Undergraduate Officer know if there are specific courses that you would like to teach. The graduate student's supervisor will often act as a mentor to assist with this first teaching experience. Assistance is also available through the Centre for Teaching Excellence (CTE).

Travel assistantships – The International Experience Award

Students are eligible to apply for students presenting the results of research they conducted while at the University of Waterloo at professional or academic meetings. Students are normally expected on a first come first serve basis and only a handful of awards are available each term.

Only graduate students currently registered in a degree program at Waterloo and registered at the time of the travel are eligible. Priority will be given to Doctoral students who have not used the award twice and Master's students who have not received this award previously.

Maternity, adoption and parental leave

Graduate students who wish to take maternity, adoption, or parental leave may register for an inactive (full leave) or part-time (partial leave). Inactive status must be approved by the Supervisor, Graduate Officer, and Associate Dean for Graduate Studies. The choice of registration status depends primarily on the amount of time you expect to be able to devote to your academic program during the leave and must be made in consultation with your supervisor and Graduate Officer. Where external agencies are involved, as with visa students or those holding external scholarships, you should consult these agencies before applying for part-time or inactive registration. If you are approved to register "inactive", you pay no tuition fees; if you register part-time, you pay part-time tuition fees. In either case the degree time limit is extended appropriately.

Full-time graduate students are eligible to receive a Bursary during a full or partial maternity or adoption leave provided that they have been registered as full-time graduate students at UW for at least two academic terms prior to the start of the leave. Part-time graduate students are eligible to receive a Bursary during a full four-month maternity or adoption leave provided that they have been registered as full- or part-time graduate students at UW for at least two academic terms prior to the leave, and are receiving financial support (TA, RA, scholarship, or bursary) during the academic term preceding the leave. For forms, please visit the GSPA Forms page, under Awards/Bursaries. Students are advised to consult the Parental Leave Advisor in the Graduate Studies & Postdoctoral Affairs Office at an early stage in planning for a maternity/adoption/parental leave. Please refer to the University policies for further information.

MMEGA

MME graduate students. We represent MME grads at the graduate student association (GSA) level and at the MME department level where we seek the best interest of MME grad students. We also aim to promote interactions between all MME graduate students through a variety of event all year round (be on the lookout for them!).

MMEGA is the graduate student association for all

Additional Information About UW

Access to building after hours

Currently MME has lab, classroom and office space in the following buildings across campus: **CPH, DC, DWE, E2, E3, E5, E7, EC4, ERC**, and **FRF**. We also have faculty members working in buildings such as QNC in addition to professors cross-appointed from other Engineering departments and faculties. The department does their best to group students from the same research group together in the same offices, close to their supervisor's lab(s), but this is not always guaranteed due to availability. Under current guidelines, office access is restricted to those students who have been added to and signed their supervisor's research safety plan. If no plan has been received, access is not permitted.

Living accommodations for graduate students

Please refer to the current UW University of Waterloo Graduate Calendar, Housing & Residences for complete details.

Students have options to live with their families in townhouses. UW also helps with providing information regarding Off-Campus Housing.

GSA /Grad house

All graduate students are automatically members of The Graduate Student Association. The Grad House is situated in the centre of campus and serves lunches, alcoholic and non- alcoholic beverages at moderate prices. More information can be found at the Graduate House website.

Libraries

There are a number of libraries on campus. The Dana Porter Arts Library, which is located in the center of the campus, is the main library for arts humanities and social/behavioral sciences materials. The Davis Centre Library is located in the Davis Centre and contains materials related to mathematics, engineering, biological and health sciences, physical sciences, and so on. For manuals and other materials related to computer software and its application, the IST has a special CHIP service centre located on the bottom floor ofthe Math and Computer Building. You may also view books, articles and other pieces of literature using the online library

The University is linked to the Ontario Inter-University Library System whereby it is possible to obtain a copy of a book or journal which is not available in our library

within 48 hours. Inter-library loan (ILL) service area

ches across North America. The Interlibrary Loan (RACER) system allows you to obtain items not available at the TUG libraries, including the UW Library. You may login to RACER to request books, journal articles, etc. not held in the TUG libraries.

Sustainable Transportation: https://uwaterloo.ca/sustainable-transportation/

Centre for Career Development

The Centre for Career Development provides assistance to students graduating with advanced degrees who are seeking employment. Types of employment and the organizations and agencies compatible with individual students' needs and abilities are discussed during personal interviews with career advisors. Group sessions for students are held on job- hunting techniques, resume writing and successful interviewing. Each year, several hundred employers are invited to conduct on-campus interviews for all graduating students. Post-graduate students may participate in interviews during the Fall and Winter terms. Visit the Centre for Career Development for more information

UW Store

The UW Store, located in South Campus Hall. Visit the University of Waterloo's Store

Healthcare

Health Services are provided for all students at UW. Registered students can receive medical care, nursing care and counselling services at Health and Safety. A roster of family doctors attends Health and Safety each day to see students. A Health and Safety physician is on 24-hour call seven days a week for students.

Health Insurance: Physicians' fees at Health and Safety as well as laboratory work and X-rays are paid for by the Ontario Health Insurance Plan (OHIP). For detailed information on OHIP, students can obtain a free booklet, "The Ontario Health Insurance Plan General Guide", at the Clinic. OHIP application forms are also available at the Clinic. Students from other Canadian provinces and foreign students should check with Health and Safety staff regarding their coverage.

With the exception of visa students, all full-time students are covered by a Student Supplementary Health Insurance Plan. Premiums are shown in the Schedule of Fees. Dependent (family) coverage can be obtained by payment of an additional premium. A pamphlet detailing this plan is available at Health and Safety, the Registrar's Office, Financial Services, or the Federation of Students' Office.

Visa students, no longer covered under the Supplementary Health Insurance Plan since June 30, 1994, should enrol for the UHIP or University Health Insurance Plan. This plan can cover either the student alone, one dependent or more than one dependent at different costs. To apply for dependent coverage, the student must apply for coverage within 30 days of arriving in Canada. After this time the student must seek coverage from another private insurer or be responsible for their own medical costs. The Graduate Studies & Postdoctoral Affairs Office cautions that medical costs are very high, for example, one day in the hospital can cost as much as $2,000.00 in Canada. Information regarding this plan can be obtained from the Graduate Studies & Postdoctoral Affairs Office.

Mental Health Resources

Counselling Services are also available for urgent situations where drop in sessions are offered. In addition, stress-reduction workshops are offered to better prepare students to cope with stress of studies, personal lives, social lives, etc.

Centre for Teaching Excellence

The Centre for Teaching Excellence (CTE) fosters teaching and learning of the highest quality at Waterloo. They support the development of instruction by working collaboratively with departments and individuals at all career stages, and promote the

importance of effective teaching and meaningful learning across the university.

Child Care

hrough four centers on campus. The Early Childhood Education Centre (ECEC) and Bright Starts Co-operative Early Learning Centre Inc. provide a variety of child care services on campus. Visit the Human Resources website for more information.

There are a variety of child care services available t