

Mechanical & Materials Engineering PhD Map

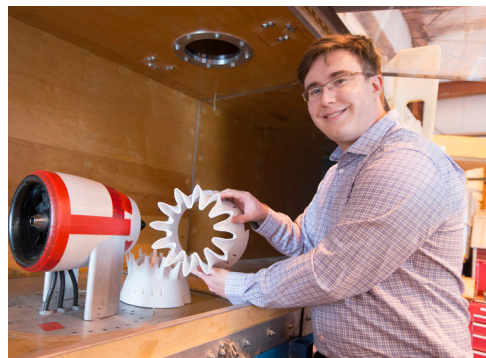
Applying to and Navigating Graduate Studies

GRAD MAP FOR PhD STUDENTS 

Why GRADUATE STUDIES in MECHANICAL & MATERIALS ENGINEERING?

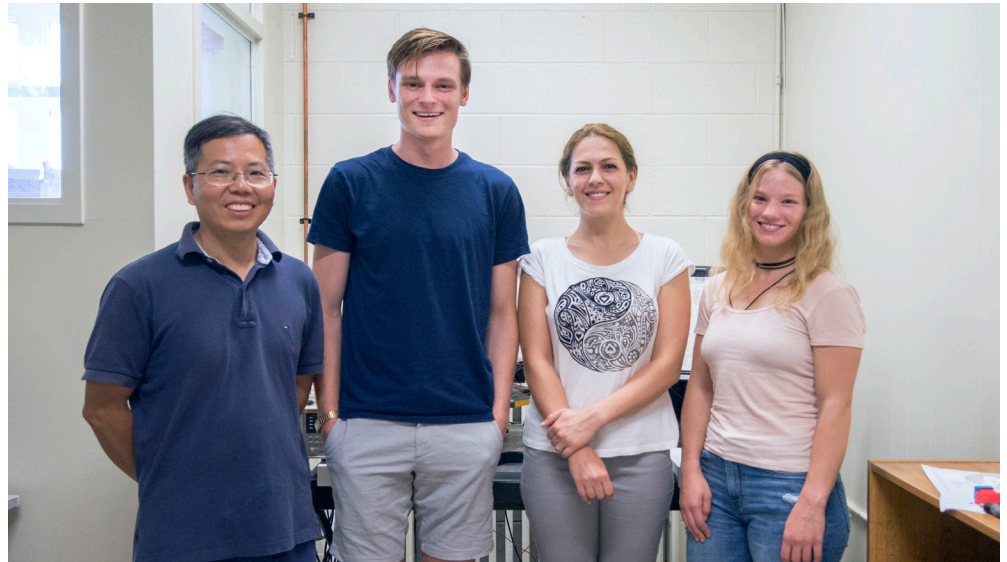
As a PhD student in the field of Mechanical and Materials Engineering (MME), you can play a vital role in future developments in such areas as: ergonomics, biomechanics and tissue engineering, assistive technologies, emerging techniques in MRI and CTI imaging, fuel cells, fluid flow, gas turbines, design optimization, robotics, atomistic simulations on long and short timescales, corrosion and environmental degradation of materials, development of improved materials for nuclear reactor applications, laser additive manufacturing of metals, and many other areas. Mechanical & Materials Engineering continues to play a vital role in modern life.

Graduate students and their work are an important part of an ongoing research process that provides the community with ways of understanding natural, cultural, imaginative, social, and technological phenomena.



Why QUEEN'S?

As a PhD student in Mechanical and Materials Engineering at Queen's you are part of one of the most research intensive universities in Canada. Our research program is internationally renowned with a wide range of research activities in all of the major specialization areas of Mechanical and Materials Engineering.



"My research work provides me with skills and experience working on cutting edge healthcare technology which in the future I will be able to apply in industrial or academic positions."

– Rick Helgason , PhD

The Mechanical and Materials graduate program has been recognized for the quality of its academic and research programs. It also focuses on multidisciplinary, collaborative research with faculty in other departments, other faculties, and other universities.

RESEARCH Areas

- Biomechanical
- Energy and Fluid Systems
- Mechatronics
- Manufacturing and Dynamic Systems
- Materials Engineering

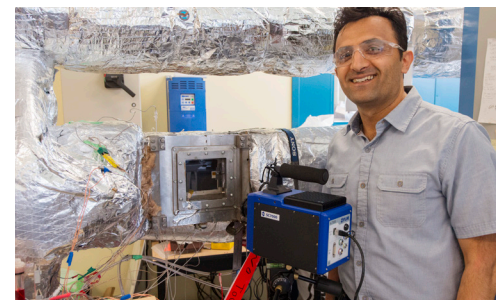
We encourage you to identify an area of research interest and contact a potential supervisor before applying.

Visit the [Mechanical and Materials Engineering website](#) to read about research groups and faculty profiles. When you find a faculty member with

similar research interests to yours, contact them and tell them about your interest in graduate work and related experience. This is also an opportunity for you to find out if the faculty member is accepting new graduate students to supervise. Meet with your potential supervisor at departmental events for prospective students.

Program STRUCTURE

PhD (4 years): 3 graduate-level courses required (successfully passed with 70% or higher), comprehensive exams (Parts A & B successfully completed), seminar course (MECH 997) "pass/fail" only, and the research thesis – successfully defended.



GRADUATE STUDIES AND POSTDOCTORAL AFFAIRS

queensu.ca/grad-postdoc

Mechanical & Materials Engineering PhD Map

DOCTOR OF PHILOSOPHY (PhD)



How to use this map
Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. To make your own custom map, use the My Grad Map tool: careers.queensu.ca/gradmaps.

Graduate Studies FAQs

How do I make the most of my time at Queen's?

Use the Grad Map to plan for success in five overlapping areas of your career and academic life. Everyone's journey is different - the ideas on the maps are just suggestions to help you explore possibilities. For more support with your professional development, take advantage of the SGSPA professional development framework and the new Professional Development Plan (PDP) process to set customized goals to help you get career ready when you graduate.

Where can I get help?

Queen's provides you with a broad range of support services from your first point of contact with the university through to graduation. Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming environment offers the programs and services you need to be successful, both academically and personally. Check out the [SGSPA website](#) for available resources.

What is the community like?

At Queen's, graduate students from all disciplines learn and discover in a close-knit intellectual community. You will find friends, peers and support among the graduate students enrolled in Queen's more than 130 graduate programs, within 50+ departments and research centres. With the world's best scholars, prize-winning professional development opportunities, excellent funding packages and life in the affordable, historic waterfront city of Kingston, Queen's offers a wonderful environment for graduate studies. Queen's is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown with its shopping, dining and waterfront. For more about Kingston's history and culture, see Queen's University's Discover Kingston page.

Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS

- Master's degree in Applied Science or Engineering.
- Exceptional BSc students may be admitted directly to the PhD program.

ADDITIONAL REQUIREMENTS

- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The following minimum scores are required: (1) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30). Applicants must have the minimum score in each test as well as the minimum overall score, or (2) IELTS: 7.0 (academic module overall band score and a 7.0 for each test band), or (3) PTE Academics: 65, or (4) CAEL CE - 70 (minimum overall score).

KEY DATES & DEADLINES

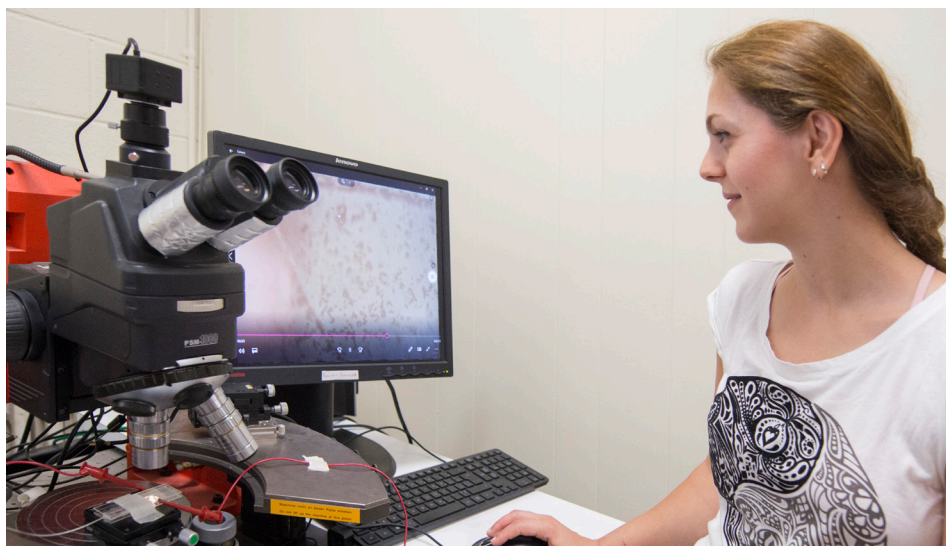
- **Application deadline:** No hard deadline. It is encouraged that prospective domestic and international students apply before March 1st to qualify for internal awards or to allow time to receive Visas.
- **Notification of acceptance:** End of March to July for September admissions.

Before you start your application, please review the Graduate studies application process.

What about FUNDING?

Currently, the minimum funding guarantee for PhD students \$27,000/year throughout years 1-4 which includes mandatory teaching assistantships. Students are typically funded through a combination of research assistantships, teaching assistantships, and/or scholarships.

We encourage all students, if eligible, to apply for external funding – for example, tri-council (NSERC) during the Fall semester, Ontario Graduate Scholarships (OGS) during February/March, and other sources. See the School of Graduate Studies and Postdoctoral Affairs' for more information on awards and scholarships



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