What is the community like?
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 career, 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 SGS Habitat for available resources.

Where can I get help?
Whether you are considering or have embarked on graduate studies at Queen's, use the online My Grad Map tool.

How do I use this map?
My Grad Map tool.

FAQs
Application FAQs
What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
-Honours Bachelor’s degree in Applied Science or Engineering.
-Grade requirements: minimum cumulative average of a B (73-76.9%).

ADDITIONAL REQUIREMENTS
-If English is not a native language, prospective students must meet the English language requirements, including writing, speaking, reading, and listening. The School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (internet-based): 92. Writing (23/30); Speaking (23/30); Reading (22/30); Listening (20/30), for a total of 60/120 (applicants must have the minimum score in each test as well as the minimum overall score), or (3) IELTS: 7.0 (academic module overall band score), or (4) PTE Academic: 65.

KEY DATES & DEADLINES
-Application deadline: No hard deadline. It is encouraged that prospective international students apply before March 1st 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?
MASc students receive minimum funding of $16,000 per year. Students are usually funded through a combination of research assistantships, teaching assistantships, and/or scholarships. Funding levels differ for international students.

Apply for external funding from OGS and other sources. Queen’s will automatically issue a one-time funding assignment for the first year. Please refer to the Graduate Financial Assistance section for more information.

Program STRUCTURE
MASc (2-years): Research-based program with 4 term-length courses and a thesis.

Why STUDENTS?

Why QUEEN'S?
As a Master's 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.

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
- Manufacturing and Dynamic Systems
- Materials Engineering

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

Why GRADUATE STUDIES in MECHANICAL & MATERIALS ENGINEERING?
As a Master’s 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, fuel cells, fluid flow, gas turbines, design optimization, robotics, ceramics and polymers, and many other areas. Mechanical 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. Check out whygradstudies.ca for more reasons to choose graduate studies in engineering.

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 him/her 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.

Who are the faculty?
Queen's University’s Mechanical and Materials Engineering (MME) provides students with an opportunity to work with faculty experts in their field. The faculty includes a wide range of expertise in research and teaching in areas such as: biomechanics, fluid dynamics, materials science, and mechanical design.

Why are the programs important?
The Mechanical and Materials Engineering programs are important for a variety of reasons. They provide students with the opportunity to pursue research in a variety of areas, including biomechanics, fluid dynamics, materials science, and mechanical design. These programs also provide students with the opportunity to engage in interdisciplinary research, which is essential for addressing the complex challenges facing the world today.

What is the difference between a Bachelor’s and a Master’s degree?
A Bachelor’s degree is typically a 4-year program that provides a broad foundation in a specific field of study. A Master’s degree is a 2-year program that builds on the knowledge and skills gained in a Bachelor’s degree, offering more specialized training in a specific area.

What is the difference between a BASc and a MASc degree?
The BASc degree is a 4-year program that provides a broad foundation in a specific field of study. The MASc degree is a 2-year program that builds on the knowledge and skills gained in a BASc degree, offering more specialized training in a specific area.

Where can I get help with my application?
You can contact the School of Graduate Studies at (613) 533-3815 or email them at grad.map@queensu.ca for assistance with your application.

What is the Graduate Financial Assistance program?
The Graduate Financial Assistance program is a financial aid program that provides funding to graduate students at Queen's University. This program includes a combination of research assistantships, teaching assistantships, and scholarships.

What is the application deadline for the program?
The application deadline for the program is March 1st. Please apply by this date to ensure that you have enough time to receive your visa.

What is the minimum English language requirement for international students?
The minimum English language requirement for international students is a TOEFL score of 92 (internet-based) or 550 (paper-based), or an IELTS score of 7.0 (academic module overall band score).

Where can I find more information about the program?
You can find more information about the program on the Mechanical and Materials Engineering website at whygradstudies.ca.
The coronavirus pandemic may impact how some activities are delivered in 2020-2021. Please check directly with the host of any activity on the map for the latest information.

**WHAT WILL I LEARN?**
A graduate degree in Mechanical Engineering can equip you with valuable and versatile skills, such as:
- Knowledge and technical skills
- Effective communication skills in multiple forms for diverse audiences
- Information management: principles, organize and synthesize large amounts of information
- Time management: meet deadlines and manage responsibilities despite competing demands
- Project management: develop ideas, gather information, analyze, critically appraise findings, draw and act on conclusions
- Creativity and innovation
- Perseverance
- Independence and experience as a collaborative worker
- Awareness, an understanding of sound ethical practices, professional responsibility, responsible research and cultural sensitivity
- Professionalism in all aspects of work, research, and interactions
- Leadership: initiative and vision leading people and discussion

**WHERE CAN I GO?**
A Master's degree in Mechanical Engineering can take your career in many directions. Many of our MA Sc students choose to continue their academic inquiry with a PhD. Our Master's students are equipped with a strong foundation for careers in:
- Academia – Professors
- Research Science – Simulation Engineer
- Government
- Industry – Design Engineer
- Consulting

Taking time to explore career options, build experiences, and network can help you have a smooth transition to the world of work after graduation.

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**2020-2021**

**Mechanical & Materials Engineering**

**MASc Map**

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**GETTING STARTED**

- **ACHIEVE YOUR ACADEMIC GOALS**
  - Start with key priorities like developing your relationship with your supervisor and starting your coursework.
  - Consider how your coursework can contribute to your thesis.
  - Find your way through the academic process with help from Expanding Horizons.

- **MAXIMIZE RESEARCH IMPACT**
  - Start to think about the audiences for your research.
  - If you will be continuing graduate studies, apply for NSERC and OGS funding.
  - Explore research facilities, including the Machine Shop, Reactor Materials Testing Lab, and the Solar Calorimetry Lab.

- **BUILD SKILLS AND EXPERIENCE**
  - Consider positions in student services, the SGPS, or media outlets like the Queen's Journal, CFCF, and the SGS Blog. Look in the AMS Clubs Directory for more ideas.
  - Serve on departmental, faculty or university committees.
  - Check out professional development workshops from Expanding Horizons.

- **ENGAGE WITH YOUR COMMUNITY**
  - Explore how you can connect with your community through experiential opportunities on- and off-campus.
  - Consider volunteering with different community organizations, such as the Human Mobility Research Centre, and the Centre for Advanced Materials & Manufacturing.

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**INTERMEDIATE STAGE**

- **ACHIEVE YOUR ACADEMIC GOALS**
  - Complete your coursework, begin to research and write your thesis.
  - Attend the Departmental Graduate Seminar Series (MECH897).

- **MAXIMIZE RESEARCH IMPACT**
  - Attend or present at a graduate conference through the Canadian Society of Mechanical Engineering, Canadian Section of Combustion Institute, or CFD Society of Canada.
  - Consider participating in the 3 Minute Thesis (3MT) competition.
  - Expand your research audience through social media such as Twitter or a blog.

- **BUILD SKILLS AND EXPERIENCE**
  - Start keeping an ePortfolio of your skills, experiences and competencies.
  - Use a Research Assistant or Teaching Assistant position to develop your research or teaching skills.
  - For help with teaching, get support from the Centre for Teaching and Learning, Enroll in SGSS902 or the PUTL Certificate for more professional development in teaching and learning.

- **ENGAGE WITH YOUR COMMUNITY**
  - Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
  - Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QUIC and Four Directions Indigenous Student Centre.
  - If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

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**WRAPPING UP**

- **ACHIEVE YOUR ACADEMIC GOALS**
  - Present your research to Mechanical Engineering graduate students and faculty as part of MECH897, and complete and defend your Master's research thesis.

- **MAXIMIZE RESEARCH IMPACT**
  - Consider publication options for your research.
  - Attend a major conference in your field, such as a conference by the American Society of Mechanical Engineering.
  - Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.
  - Consider putting an article in The Conversation.

- **BUILD SKILLS AND EXPERIENCE**
  - Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews. Get help from a Career Services workshop.
  - Investigate internships from MNTAC and other sources.
  - Check out opportunities for extra training through CTL, Expanding Horizons, MNTAC, or other sources to boost your skills.

- **ENGAGE WITH YOUR COMMUNITY**
  - Do some targeted networking with people working in careers of interest, through QueensConnects, the Queen's Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
  - Consider joining professional associations like the Professional Engineers of Ontario (PEO) or the Canadian Society for Mechanical Engineering.

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Visit careers.queensu.ca/gradmaps for the online version with links!