



**MOVING THE  
WORLD FORWARD**

## MECHANICAL ENGINEERING

Invent the future by enrolling in UNB's mechanical engineering graduate program. This diverse program will appeal to those interested in advanced research involving, for example: the design and performance of wind and tidal turbines; the aerodynamics of air and land vehicles; the hydrodynamics of ships and submarines in motion; the mechanical design of complex machines (such as robots); the creation of novel materials (such as nano carbon composites) through advanced manufacturing; and optimizing the performance and control of vehicles and machines of all types.

In conducting their research, students have access to various on-campus labs, research groups and institutes, including: the Advanced Manufacturing Lab, the Robotics and Mechanisms Laboratory, the Bioenergy & Bioproducts Research Lab, the Institute of Biomedical Engineering, Silicon Hall, a research lab for micro & nano fabrication and bionanotechnology, and the Computational Fluid Dynamics Laboratory. Access to low and high speed wind tunnels for performing a wide range of aerodynamic and turbulence research is also available.

### DEGREES OFFERED

MScE, MEng, PhD

### APPLICATION DEADLINE

Open

### STUDY OPTIONS

Coursework, Thesis

### DURATION

1-2 years (Master's)  
4 years (PhD)

### ENTRY TERMS

Fall, Winter &  
Summer

## RESEARCH AREAS

- Acoustics & vibration
- Advanced process controls
- Advanced manufacturing and materials processing
- Biofuels and biomass processing
- Biomedical engineering and biomaterials
- Composites
- High-performance machining
- High performance computing
- Laser machining micro/nano processing
- Material Characterization
- Multiscale modeling in solid and fluid mechanics
- Mechatronics & design
- Nanostructured coatings
- Renewable energy systems
- Robotics & applied mechanics
- Smart sensors
- Solid mechanics
- Thermofluids & aerodynamics

## APPLICATION REQUIREMENTS

- Prior to applying, those interested in the research (thesis) option must first secure faculty research supervision.
- Applicants should hold an undergraduate degree with a minimum cumulative GPA of 3.0 (70%, B, or first or upper second division)
- All applicants are required to submit a complete application and a one-page statement describing their research interests
- International applicants whose first language is not English must submit language scores that meet or exceed:
  - TOEFL = 550 (TWE = 4.0)
  - Computer based TOEFL = 213 (4.0 or greater)
  - Internet-based TOEFL = 80 (writing and speaking = 25)
  - IELTS = band 7
  - MELAB = 85
  - CanTest = band 4.5



### APPLY NOW

[unb.ca/gradstudies/admissions](http://unb.ca/gradstudies/admissions)



### CONTACT US

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GAIN CRUCIAL HANDS-ON EXPERIENCE IN UNB'S MANY OUTSTANDING RESEARCH LABS AND INSTITUTES.