

Master of Science in

# MECHANICAL ENGINEERING



The Master of Science in Mechanical Engineering (MSME) program is designed for engineers looking to advance their careers across the areas of thermal and green energy systems, fluid systems, solid mechanics, design and others. The program enhances the technical skills of mechanical engineers, equipping them with the skills necessary to drive the profession both now and in the future.

## Engage in hands-on research

The MSME gives students the opportunity to work on ground-breaking research projects with both local and global impact. Students can contribute to research across a wide variety of areas, such as:

- **cyber-physical energy systems for smart buildings**
- **nanoparticle synthesis inside microchannels**
- **acoustic properties of metamaterials**
- **sustainability assessment of manufacturing processes**
- **robotics, mechatronics and biomechanics**
- **nonlinear vibration of structures**
- **high-speed machining model for lightweight aluminum syntactic foams**
- **additive manufacturing of iron-based shape memory alloy micro-lattice structure**
- **MEMS chemical sensor for real-time monitoring of environmental pollutants in aqueous media**



As a PhD applicant, your research experience is arguably the most important parameter. One unique aspect of my experience as a master's student in the Department of Mechanical Engineering at AUS was how the program helped me develop and expend my research experience, uniquely tailored to my needs and interests.

This is because the program was heavily research based with almost one third of the credits exclusively awarded for your research activities and thesis.

Mohammad Saghafifar | MSME Class of 2016  
 Doctoral student at the University of Cambridge, UK



## Faculty of distinction

In undertaking the MSME, you will work under the supervision of faculty who have received their doctoral degrees from renowned universities, including some of the best engineering institutions in North America and Europe. These faculty are recognized experts in their fields, with extensive teaching and research experience. Graduate students have the opportunity to work with faculty to publish their work in leading international engineering and scientific journals.

## Built-in flexibility

Our graduate programs are flexible, ensuring that students are able to pursue their careers alongside their graduate degree. Students can choose between a full-time schedule and a part-time schedule, with classes offered at times suitable for those in the workforce.

## Graduate assistantships and employment

AUS offers graduate students assistantships and work-study opportunities. These are awarded on a competitive basis, coming in the form of a Graduate Research Assistantship or Graduate Teaching Assistantship. This offers not only financial assistance but also hands-on experience in teaching and research helpful to students interested in pursuing a career in academia.



## Find out more

[www.aus.edu/cen/msme](http://www.aus.edu/cen/msme)  
[ogs@aus.edu](mailto:ogs@aus.edu)

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