

# MECHANICAL ENGINEERING

Mechanical engineering is one of the broadest and most general fields of engineering. Combining some of the basic elements found in electrical and civil engineering with more in-depth use of mechanical design and thermal science principles, a mechanical engineering education will provide its students with the tools required to solve a wide range of technological problems.

Mechanical engineers work on the design, development, analysis, production, and testing of a wide variety of devices, products, and systems. The devices and systems developed by mechanical engineers can be found in many fields, including energy conversion, power generation, environmental control, manufacturing, materials handling and processing, and transportation and construction equipment.

The mechanical engineering curriculum is based upon fundamental engineering science courses in mechanics, the thermal sciences, mechanical design, and controls. Students also take courses in experimentation, computer-aided engineering, vibrations, and mechatronics. A variety of technical elective courses are also offered. With these courses, a student can either pursue a general mechanical engineering education, or can tailor a program of study towards a concentration in either thermal sciences or mechanical systems.

## Mission Statement

The mission of the UWM Mechanical Engineering Department is:

1. To provide quality educational programs for undergraduate and graduate students planning careers in mechanical engineering or related fields.
  2. To create and disseminate knowledge through research, publications, and other scholarly activities.
  3. To foster a close partnership with industry and government.
  4. To engage in professional and academic service activities of value to the University and the community at large.
- Mechanical Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-bse/>)
  - Mechanical Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-minor/>)
  - Mechanical Engineering, PhD (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-phd/>)

## Faculty

Name	Rank	Degree	School	Graduate Faculty	Emeritus Faculty
Ryoichi S. Amano	Professor	PhD	University of California, Davis	✓	
Illya Avdeev	Associate Professor	PhD	University of Pittsburgh	✓	
Robert T. Balmer	Professor	ScD			✓
S. H. Chan	Professor	PhD			✓
Woo-Jin Chang	Associate Professor	PhD	Inha University	✓	
Junhong Chen	Adjunct Professor	PhD	University of Minnesota-Twin Cities		
Roshan D'Souza	Associate Professor	PhD	University of California, Berkeley	✓	
Anoop K. Dhingra	Associate Professor	PhD	Purdue University		✓
Andrew Dressel	Lecturer	PhD	University of Wisconsin-Milwaukee		
Kenneth F. Neusen	Professor	PhD, PE			✓
Michael Nosonosky	Associate Professor	PhD	Northeastern University	✓	
Krishna Pillai	Professor	PhD	University of Delaware	✓	
Deyang Qu	Professor, Chair, Johnson Controls Endowed Chair	PhD	University of Ottawa, Canada	✓	
Mohammad H. Rahman	Associate Professor	PhD	University of Quebec, Canada	✓	
John R. Reisel	Professor	PhD, PE	Purdue University	✓	
Kevin J. Renken	Associate Professor	PhD	University of Illinois at Chicago	✓	
Nathan Salowitz	Associate Professor	PhD	Stanford University	✓	
Nathaniel Stern	Professor	PhD	New York University, Trinity College (Dublin, Ireland)		
Yongjin Sung	Associate Professor	PhD	Massachusetts Institute of Technology	✓	
Keh C. Tsao	Professor	PhD			✓
Mohamed Yahiaoui	Lecturer	PhD	Massachusetts Institute of Technology		