



# THE UNIVERSITY OF WISCONSIN-MADISON MECHANICAL ENGINEERING

## INFO

### DEPARTMENT CHAIR



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### ENROLLMENT (FALL 2019)

**957** UNDERGRADUATE  
STUDENTS

**213** GRADUATE  
STUDENTS

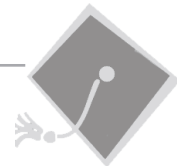


Undergraduate  
Ranking

**19**

Graduate  
Ranking

**17**



### DEGREES IN MECHANICAL ENGINEERING

BACHELOR  
OF  
SCIENCE (BS)

MASTER OF SCIENCE,  
ONE YEAR COURSE-  
WORK ONLY (MS)

MASTER OF  
SCIENCE (MS)

DOCTOR OF  
PHILOSOPHY  
(PhD)

### DEGREES CONFERRED

(ACADEMIC YEAR 2019)

**176**

UNDERGRADUATE

**62**

MASTERS

**25**

PhD

### JOB PLACEMENT



- ◆ In 2019, **90** percent of undergraduates were placed in a job within a year of graduation or attended graduate school.
- ◆ **\$69,008**—Average starting salary for an undergraduate student.
- ◆ **\$81,639**—Average starting salary for a graduate student.
- ◆ **\$88,513**—Average starting salary for a PhD student.

### LEARNING TOGETHER



- ◆ Engineering students participate in dozens of student-led organizations, developing skills in design & fabrication, community service, team-building, and leadership.
- ◆ Engineering students on the Wisconsin Robotics team won the \$10,000 top prize at the Land O'Lakes Bot Shot with their champion basketball-throwing robot.
- ◆ The Clean Snowmobile Team, based in mechanical engineering, consistently wins top prizes in the Internal Combustion division of the annual SAE Clean Snowmobile Challenge.



## INDICATORS OF QUALITY

NATIONAL ACADEMY  
OF ENGINEERING MEMBERS

3

NATIONAL SCIENCE  
FOUNDATION  
CAREER AWARD RECIPIENTS \*

17

\*(SINCE 1990)

NAMED  
PROFESSORSHIPS

13

### FACULTY

TENURED OR TENURE-TRACK FACULTY

34



Six faculty members joined Mechanical Engineering in 2019.

AVERAGE ANNUAL  
RESEARCH FUNDING

\$10.7M+

ISSUED 80 PATENTS

(2009-2019)

FINANCIAL AID

153

MECHANICAL ENGINEERING  
STUDENTS RECEIVED UW  
ENGINEERING SCHOLARSHIPS  
IN 2019

## RESEARCH EXCELLENCE

We develop the computational and empirical tools to innovate solutions to the world's problems. For example, we develop combustion, power production, and autonomous systems that are safe, efficient and sustainable. We innovate new processes for metals, polymers, additive manufacturing and printed electronics. We investigate the mechanics of biological systems to address impairments arising from limb loss, traumatic brain injury and cardiovascular disease.

Research in the department is grouped into five areas:

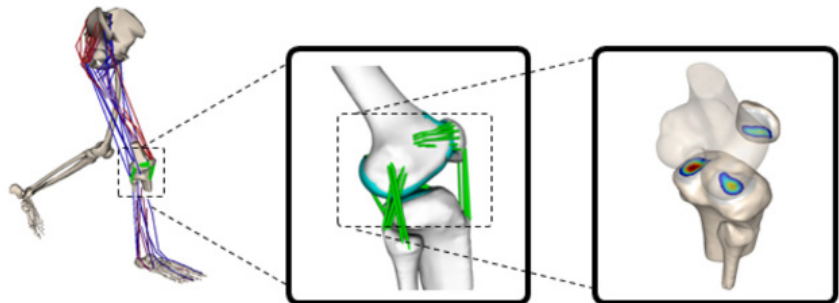
**Biomechanics**

**Computation and data-driven engineering**

**Energy systems**

**Manufacturing**

**Mechanics and controls**



▲ Working in close collaboration with clinicians, the UW-Madison Neuromuscular Biomechanics Lab uses computational models to simulate orthopedic procedures used to repair ligaments, to perform total joint replacements, and to treat pediatric gait disorders. For example, simulations of knee cartilage loading are used to assess how surgeons can optimize anterior cruciate ligament (ACL) reconstruction procedures to restore normative mechanics and thereby reduce long-term risk for knee osteoarthritis.

### RESEARCH CENTERS & CONSORTIA INCLUDE:

- ◆ Diesel Engine Research Consortium
- ◆ Engine Research Center
- ◆ Polymer Engineering Center
- ◆ PANTHER Program: Physics-Based Neutralization of Threats to Human Tissues and Organs
- ◆ Solar Energy Lab
- ◆ Wisconsin Applied Computing Center