

# Mechanical and Industrial & Management Engineering

## Degrees Offered:

- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Industrial & Management Engineering
- Bachelor of Science in Mechanical Engineering Technology
- Master of Science in Mechanical Engineering
- Master of Science in Industrial & Management Engineering
- Ph.D. in Engineering with an Applied Mechanics option
- Ph.D. in Industrial Engineering
- Ph.D. in Mechanical Engineering

## Accreditation

ABET (Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology)

## Companies that have recently provided internships and permanent employment

- 3M
- Albertson's, Inc.
- Alcoa
- Boeing
- Cargill
- Conoco
- IBM
- Intel
- National Cash Register
- Proctor & Gamble
- Tektronix
- United Parcel Service
- US West

## Undergraduate Admission Requirements

1. GPA - freshman: 2.5; transfer: 2.0
2. SAT is suggested, but not required, for international students
3. TOEFL: 195/525

## Graduate Program Requirements

1. GPA: 3.0
  2. GRE: Contact department
  3. TOEFL: 213/550
- [www.montana.edu/gradstudies/depts\\_mie.shtml](http://www.montana.edu/gradstudies/depts_mie.shtml)



## MONTANA STATE UNIVERSITY ♦ BOZEMAN

### Marks of Excellence

- MSU mechanical engineering students consistently place in the winners' circle at the **American Society of Mechanical Engineers** national design contests, competing against colleges from around the world.
- Many undergraduate and graduate students participate in research and internship activities during their time at MSU. Precision laboratories are available for work and research, including Computer Integrated Manufacturing Laboratory, Decision Support Systems Laboratory, Ergonomics and Human Factors Engineering Laboratory and the Production Systems and Facilities Design Laboratory.
- I&ME is one of the top 10 career choices for the next decade, according to a recent report by the Bureau of Labor Statistics.

Mechanical engineering graduates at the bachelor's degree level earn 49 percent more than the average college graduate and I&ME graduates earn 36 percent more. MET graduates receive starting salaries that are very competitive with their engineering counterparts. As a whole, professionals in these fields earn some of the higher salaries in engineering.

### Services for Students

- Hands-on experience is offered throughout the curriculum in laboratory courses in chemistry, physics, measurements and instrumentation, and the senior-level mechanical engineering laboratory.
- At the recommendation of the department's Industrial Advisory Board and student input, the department opened a "student shop" where students have the ability to work on projects while benefiting from faculty interaction.
- Professional elective courses in the junior and senior years allow students to tailor their education with course offerings in specific areas such as aircraft structures, composite materials, advanced fluid mechanics, HVAC (heating, ventilation and air conditioning) and finite element analysis.



### Department of Mechanical and Industrial Engineering

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# The College of Engineering



## Majors

- Bio-Resources Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Engineering Technology
- Electrical Engineering
- Industrial and Management Engineering
- Mechanical Engineering
- Mechanical Engineering Technology

## Competitive Edge

An MSU engineering education is a good value. Compared to annual undergraduate tuition at MSU,

- tuition at MIT costs 8 times more
- tuition at Stanford costs 7 times more

## Accreditation

All engineering programs are accredited by Commissions (EAC or TAC) of the Accreditation Board for Engineering and Technology (ABET). Computer Science has been accredited by the Computer Science Accreditation Board—a recognition that has been earned by just 10 percent of all computer science programs in the U.S.

MSU engineering students achieve one of the highest passing rates on the Fundamentals of Engineering Exam in the nation.

- MSU's average pass rate over the past 10 years: 92 percent
- National average: 75 percent



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### Profile of Achievement

Ramon Costa (from Spain) and Dipali Patel (from Tanzania) met as undergraduate engineering students at MSU. After working for a few years in Spain, and getting married, they are both back at MSU and eager to share their experiences with you.



“My wife Dipali and I graduated from MSU in 1999 in electrical engineering and industrial and management engineering, respectively. We had such a great time and awesome learning experience here at MSU that we decided to come back to graduate school in 2002 for our master's in industrial and management engineering. If the first time was great, the second is even better.” —Ramon Costa

### Best of Both Worlds

MSU's College of Engineering really does offer the best of both worlds: a nationally recognized education in a small town atmosphere. Here you will find a program large enough for your highest aspirations, and personal enough to appreciate your individuality.

Your professors will know your name, where you are from, your interests and what inspires you. At the College of Engineering, teaching is our top priority. You will receive individual attention in small classes. (Average class size for lectures and seminars is just 36 students. For labs, just 25.) And, unlike at larger universities, our faculty is available to provide help outside of class.

Our \$23 million Engineering and Physical Sciences building will give you the hands-on experience you'll need to keep up with industry and technology. Plus, with the complex's satellite uplink/downlink technology, you will be able to tap into resources across the U.S.

### Opportunities Beyond the Classroom

Each year as many as 40 ambitious undergraduate students in math, engineering and science find a place to pursue their interests in the **Center for Biofilm Engineering**—one of only 18 Engineering Research Centers in the U.S. established by the National Science Foundation. The center brings MSU faculty and students together, in small teams, with representatives from companies such as Conoco and Proctor & Gamble to find ways to control the effects of biofilm bacteria growth in medical, industrial and environmental systems. Additional internship and research opportunities are available at the **Western Transportation Institute** and at the **Montana Manufacturing Extension Center**.

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