

MECHANICAL ENGINEERING TECHNOLOGY

COLLEGE OF ENGINEERING | MONTANA STATE UNIVERSITY

ABOUT MECHANICAL ENGINEERING TECHNOLOGY

A Mechanical Engineering Technology (MET) graduate is an applications-focused problem solver — one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the solution of design problems (big and small) and to the operation and performance testing of mechanical systems.

ABOUT MET AT MSU

Challenging coursework provides an integrated, well-rounded engineering technology education designed to prepare you for careers in any MET field. Many professors you'll meet have extensive industrial experience, and most hold Professional Engineer certification. MET labs are housed in the Engineering/Physical Sciences building on the beautiful MSU campus in Bozeman — the recreational hub of Southwest Montana.

Program Overview: Early on, you'll take courses in engineering graphics, English, communication, chemistry, math, physics, engineering mechanics, machining, and welding. Subsequent courses introduce topics of fluid mechanics, mechanisms, thermodynamics, machine design, and instrumentation. Labs often accompany lectures to increase hands-on exposure. A senior design-and-build "capstone" experience tops off your studies with a real-world project that you must solve completely. Outside the classroom, you'll have plenty of opportunities to participate in student clubs and organizations like ASME/MET, ASHRAE and SAE.

WHAT'S THE DIFFERENCE BETWEEN MECHANICAL ENGINEERING AND MECHANICAL ENGINEERING TECHNOLOGY?

While a mechanical engineer designs, analyzes, develops, builds, and modifies the tools of our technological society, the MET supports implementation of these engineering activities by combining scientific and engineering knowledge with technical skills. The mechanical engineering technologist is more likely to be in the field or manufacturing facility using hands-on expertise to bring products and projects to completion.

WHAT JOB WILL AN MET DO?

Graduates are employed in a variety of fields including the aircraft, automotive, power generation, heating/cooling, petrochemical and commercial manufacturing industries. METs are often employed by various state or federal government agencies.

The MET graduate might be the expert who sets up manufacturing operations, validates inspections, or analyzes production problems.

METs also work in facilities operations and in the heating/ventilation/air conditioning field. Often an MET is the first-line supervisor in a production facility.

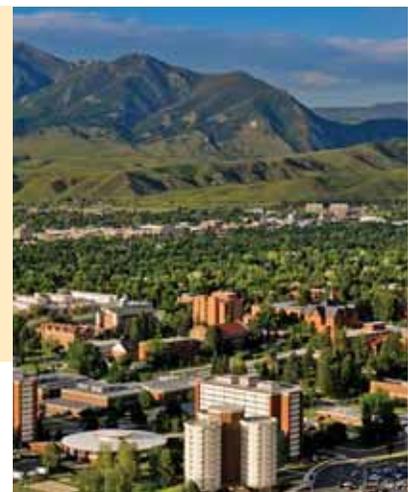
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www.coe.montana.edu/mie



- 1 Multi-disciplinary teams of MSU students compete in international competitions, such as NASA's Robotic Mining Competition, held at Kennedy Space Center in Florida.
- 2 MET students have unique opportunities to work on HVAC systems in a lab donated by AAON, a company founded by an MSU alumnus.
- 3 Students design and build offroad vehicles to compete in SAE Baja. MSU was one of 90 teams onsite in the 2014 event.
- 4 Composites is one of many areas in which MET students learn by doing.



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Excellent Salaries

Mechanical engineering technology graduates are employed in a wide array of industries. The following data were reported in April 2014.

The economic sector employing the largest number of METs was architectural, engineering and related services firms. The average starting salary was \$53,350.

Source: *National Association of Colleges and Employers* www.naceweb.org

Who hires MSU MET graduates?

- AAON, Inc. – OK
- Anvil Corporation – WA
- ASI International – MT
- Associated Construction Engineering (ACE) – MT
- Boeing – WA, MT
- Croakies – MT
- CTA Architects Engineers – MT
- Energy-1 – MT
- HDR – MT
- Kiewit Infrastructure – CO
- Montana Instruments Corporation – MT
- S. Conley Sales, Inc. – MT
- Sandvik Coromant Tools – IL
- Spika Welding & Manufacturing – MT
- Spirit Aerosystems – KS
- Many more!

Career Paths in MET

The mechanical engineering spectrum is very broad and MET graduates work in the following traditional areas:

- machine design
- manufacturing and automation
- control of engineering systems, subsystems and their components
- facilities or equipment maintenance

MET professionals can also play a critical role in solving many important problems facing the world today:

- sustainable energy production
- energy conversion and storage
- mechanical/electrical systems in homes and buildings

The MET curriculum provides a pathway to a successful career solving problems to make people's lives better.

5 Multi-disciplinary teams of MSU students compete in international competitions, such as Robosub, held in southern California.

AN MET STUDENT...

- Is curious about the way things work
- Likes hands-on tinkering with machines
- Seeks a career with opportunities outside the office
- Is unafraid of complex technical problems
- Enjoys a challenge and loves to learn
- Always looks for a better way to do the job

PREPARATION

To prepare for a career in MET, high school courses in physics, English, mechanical drawing, and computer applications are important. Training in shop-related courses such as woodworking, welding, mechanics, and machining help to develop useful skills. A math background including geometry, trigonometry, and two years of algebra is recommended before entering the program.

Ideally, freshman students should be prepared and qualified to take Calculus for Technology.

JOIN US!

We're eager to have you join us.

If you're a hands-on problem-solver with an interest in engineering topics, then the MET program is for you. And there's no better place to obtain a Bachelor of Science degree in Mechanical Engineering Technology than at MSU in Bozeman. You'll be surrounded by a great group of faculty and students in one of the most beautiful regions in the country. If you want a challenging career coordinating designers, skilled technicians and craftspeople, and managers in order to develop a final product, you're encouraged to enroll in the program that can make it all happen.

SCHOLARSHIPS

MSU's Office of Financial Aid coordinates a wide variety of scholarship opportunities. Many scholarships for freshmen (both resident and non-resident) are awarded automatically, without a separate application form, based on the ACT or SAT scores you submit with your application for admission. <http://www.montana.edu/wwwfalscholarships.html>

The College of Engineering and the M&IE Department also offer scholarships to qualified applicants on a competitive basis. ME scholarships range from \$250 to more than \$2,000 per academic year. Students who want to be considered for these scholarships must submit a COE scholarship application prior to the early February deadline for the following academic year. www.coe.montana.edu/scholarships.asp

ADMISSIONS

Applications are accepted from in-state, out-of-state, and international students. Eligible undergraduates may attend full- or part-time. Applications are processed by Admissions, Montana State University, P.O. Box 172180, Bozeman, MT 59717-2180 (1-888-MSU-CATS or 406-994-6617). www.montana.edu/admissions



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