

Wanted: creative, intelligent, dedicated people to rebuild our civil infrastructure, protect the environment, serve society, and improve the quality of life.



Working as an engineer in the upcoming decades, you will have a chance to play a critical role in making the world a better place. In fact, students at Michigan Tech are getting a head start—by helping facilitate sustainable development, appropriate technology, beneficial infrastructure, and social change—while they are still in school.

Facts

- Standard construction materials, such as concrete, consume vast quantities of energy to produce. Every year, almost one ton of concrete is produced for every person on the planet.
- The typical lifespan for a bridge constructed in the US with standard concrete is only 75 years.
- Air pollution costs the US as much as \$40 billion annually in health care and lost economic productivity.
- More than one billion people lack access to safe drinking water.
- More than two billion people are without adequate sanitation.

D80 Center

Seeking an opportunity to put your new engineering skills to work in the developing world? Michigan Tech's D80 Center is dedicated to assisting the most vulnerable 80 percent of humanity in meeting their basic needs for food, water, shelter, sanitation, waste disposal, energy, income, and education.

D80 is a collaboration of nineteen programs on campus, including Engineers Without Borders, which work on solutions for prosperity with partnering communities.

www.d80.mtu.edu

WHY CHOOSE MICHIGAN TECH?

Our department offers two distinct programs—civil engineering and environmental engineering. Both programs provide a strong background in engineering, science, and communication—allowing you to serve society and protect the environment.

There are a number of excellent reasons to choose civil or environmental engineering at Michigan Tech:

Supportive, Collegial Atmosphere

Our faculty are both nationally recognized and student-friendly.

Solid Rankings

Our department is consistently ranked in the top twenty for the number of civil engineering and environmental engineering degrees awarded.

Real-world Experience

We have one of the highest co-op rates on campus, both because of demand for our students, and their great motivation and interest. Many students obtain summer internships.

International Study

Opportunities are available in places like Australia, Bolivia, Finland, Germany, Ghana, Panama, and other locations around the world.

Excellent Resources

Our state-of-the-art laboratories include a pilot-scale Environmental Simulation Lab and state-of-the-art asphalt and concrete materials labs.



As a civil engineer, you will be a person who meets the challenges of deteriorating infrastructure, traffic congestion, energy needs, floods, earthquakes, urban redevelopment, sustainability, pollution control, and community planning.

Civil engineers create the facilities essential to our civilization. The planning, design, and construction of large, one-of-a-kind systems and structures are hallmarks of civil engineering. Your assignments might place you at a computer workstation, in front of a public hearing, or on a project work site—but always at the forefront of technology.

Career Options

You could become a design engineer for a consulting firm, an estimator and planner for a construction company, or a municipal engineer for local and city governments. Civil engineers work for the federal government, including the Department of Transportation, US Army Corps of Engineers, US Geological Survey, US Forest Service, or Department of the Interior.

You could also become a high school teacher of science and math; go on to law school; or head directly to graduate school to obtain a master's or doctoral degree.





Many people are concerned with the environment, but environmental engineers are the people who actually prevent damage and fix existing problems.

As an environmental engineer, you will apply your knowledge of math, physics, chemistry, biology, and engineering for the protection of human health and the environment. You could develop water distribution systems, recycling methods, sewage treatment plants, and other pollution prevention and control systems.

You will seek new ways to keep society both modern and earth-friendly, including:

- Managing and restoring the ecology of lakes and rivers
- Overseeing watershed planning and restoration
- Engineering the air quality within a region
- Solving soil and groundwater problems
- Preventing pollution

Career Options

The world will need many well-educated environmental engineers to respond to the public's demand for cleaner air, water, and land. You could work as a design engineer for a consulting firm; a process engineer for industry; or a municipal engineer for local and city government. Environmental engineers are hired by federal agencies such as the US Environmental Protection Agency, Department of Transportation, US Army Corps of Engineers, US Geological Survey, and US Forest Service.





Senior Design

It takes teamwork to bring creative ideas to life. During your senior year, you'll have the chance to work with a small team of students on a senior design project. Recently a group of nineteen CEE students went to Panama to work on two water projects and two bridge projects. Other on-campus projects include:

- New design for a local wastewater system
- Bikeway planning for the Houghton area
- Timber bridge design for the North Country Trail System
- Campus parking plan for Michigan Tech

Enterprise

Join an Enterprise team and get the extra edge on your education. Solve real-world engineering, design, and communication problems. Develop marketing, business, and leadership skills. Teams are open to students from every major and operate like companies in the private sector. Our department hosts the Pavement Enterprise team, but you can choose from more than thirty across campus.

www.enterprise.mtu.edu



Undergraduate Research

Cutting-edge research isn't just for graduate students. You can gain valuable experience working with a faculty mentor. This is excellent preparation for graduate school or work in a research laboratory.

Rail Program

Michigan Tech's innovative Rail Transportation Program is one of the first in the nation. Its mission is to advance both education and research across disciplines. Countries worldwide are accelerating their efforts to develop 21st century rail systems. The program embraces a new approach—one not bound by national borders. For instance, the program offers a unique five-week railroad course, including three weeks in Finland.

COME SEE US

There is no substitute for seeing firsthand what Michigan Tech has to offer. We invite you to visit our campus and tour the CEE department. Call 888-688-1885 to set things up.

FIND OUT MORE

Please feel free to get in touch. We look forward to hearing from you.

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Michigan Technological University is an equal opportunity educational institution/
equal opportunity employer.

Since 1885, we have offered educational excellence in beautiful Upper Michigan. Our students create the future in arts, humanities, and social sciences; business and economics; computing; engineering; forestry and environmental science; natural and physical sciences; and technology.