

As a chemical engineer, you can save lives, clean up the planet, and make everyday life safer and easier. Join the community of professionals who combine chemistry and engineering to make the world a better place. It could be the most rewarding decision you ever make.

WHY CHOOSE MICHIGAN TECH?

Chemical engineering is one of the most challenging—and one of the most rewarding—degree programs available at Michigan Tech.

Award-winning Faculty

Many have written nationally-recognized textbooks on safety, environmentally-conscious design, rheology, polymers, and more.

Unit Operations Lab

Our UO Lab is the only lab of its kind and size in the world used for chemical engineering education. At three stories tall and 6,000 square feet, it emulates a real-world chemical processing facility.

World-class Facilities

All of our laboratories are state-of-the-art, and our BASF and Kimberly-Clark classrooms offer multimedia equipment, video-conferencing, and audiovisual technology.

Global Opportunities

Our students enjoy study-abroad opportunities all around the world, including Europe, Asia, Australia, and South America.

Industry Experience

Our strong internship and cooperative education programs can give you a thorough understanding of engineering practices in industry while you are still a student.

Communicate Like a Pro

We offer one of the nation's only technical communication courses specially designed for chemical engineering.

Professional Success

Our graduates are recruited by regional, national, and global corporations, with a placement rate of 98 percent within six months of graduation.





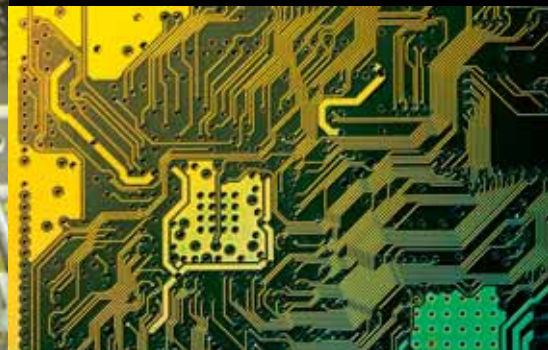
Literally everything around us is made up of chemicals. As a chemical engineer, you will transform chemicals and raw materials into useful, valuable, and often lifesaving forms.

You could design processes that involve chemical or biological transformation in large-scale manufacturing plants, ensuring those processes are operated safely, sustainably and economically.

You could also play an important role in protecting the environment, inventing cleaner technologies, calculating environmental impacts, and studying the fate of chemicals in the natural world.

Chemical engineers also pioneer new developments in medicine, energy, nanotechnology, advanced materials, manufacturing, microelectronics, biotechnology, and more. Discoveries often lead to major breakthroughs, including:

- Chemotherapy with reduced side effects
- Vaccines that ward off epidemics
- Cleaner sources of energy
- Earth-friendly plastics
- Greener chemical processes
- Innovative consumer goods
- Rapid bloodtyping
- Medical microdevices
- Rechargeable batteries
- Freshwater from seawater



We offer minors in four rapidly expanding areas:

Polymer Science and Engineering

Meet the demand for chemical engineers who understand the chemical and mechanical properties of polymers, plastics, and composites. Some of the largest chemical companies in the world, several of which are based in Michigan, pursue Tech graduates with this training.

Mineral Processing

Help to manage the earth's resources in efficient and environmentally-friendly ways. Graduates combine their knowledge of chemical engineering and minerals processing to extract and refine valuable minerals, while at the same time protecting and restoring the landscape.

Bioprocess Engineering

Work to develop lifesaving medicines and improve the food supply for a hungry world. Graduates in this field provide expertise on biological processes to major chemical, pharmaceutical, and food manufacturers.

Hydrogen Technology

Understand the use of hydrogen as an energy carrier. Graduates in this field create fuel cells and apply their knowledge to fuel-cell operation, traditional and alternative energy sources, hydrogen policy issues, safety training, and hydrogen-related technologies.





D80 Center

Interested in putting your new engineering skills to work in impoverished countries throughout the world? Many challenges confront our planet's inhabitants, particularly the 80 percent not typically considered by those creating infrastructure, goods, and services. Visit the D80 Center at www.mtu.edu/d80.

Wood-to-Wheels (W2W)

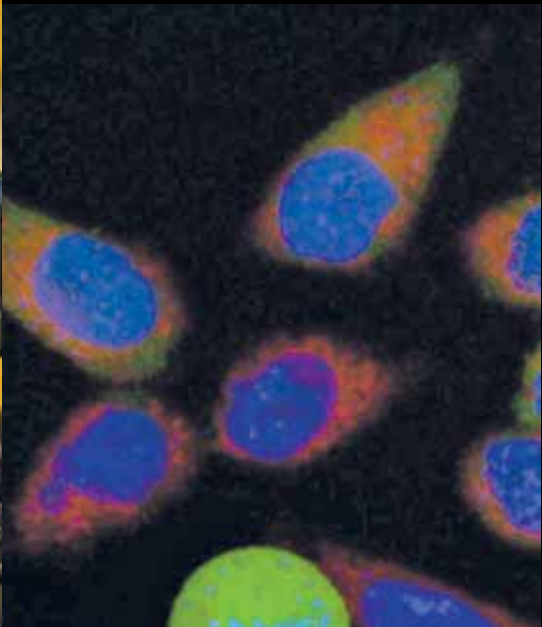
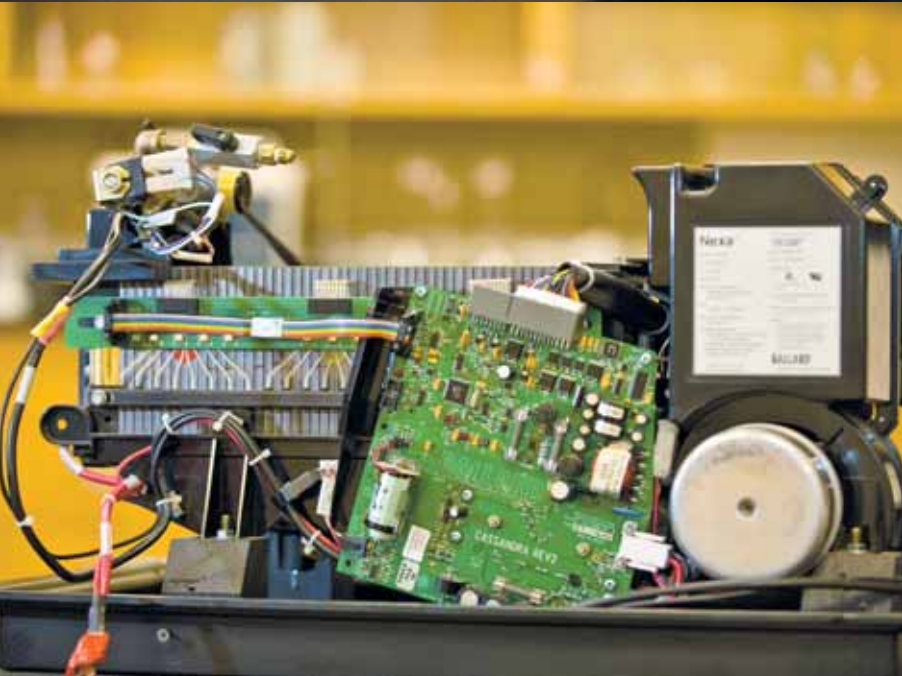
Here on campus, the Wood-to-Wheels initiative brings together undergraduates, graduate students, scientists and engineers from multiple disciplines to research forest-based biofuel transportation systems from a 360-degree perspective.

Sustainable Iron and Steel Making

Get involved in research seeking better ways to create the 130 million tons of iron and steel consumed in the US each year.

CO₂ Sequestration

Take part in experiments designed to remove carbon dioxide from flue gases and store it in stable mineral form. The goal—to help to slow atmospheric and marine accumulation of greenhouse gases.



SPECIAL OPPORTUNITIES

Enterprise

Join an Enterprise team and get the extra edge on your education. Solve real engineering, design, and communication problems. Develop marketing, business and leadership skills. Teams are made up of students from every major, and operate like companies in the private sector. We host two teams, but you can choose from close to thirty teams across campus.

Alternative Fuels Group (AFG)

AFG develops advanced engineering technology to solve modern energy problems.

Consumer Product Manufacturing (CPM)

CPM explores the entire consumer product cycle—from conception through design and production, and into marketing.

Undergraduate Research

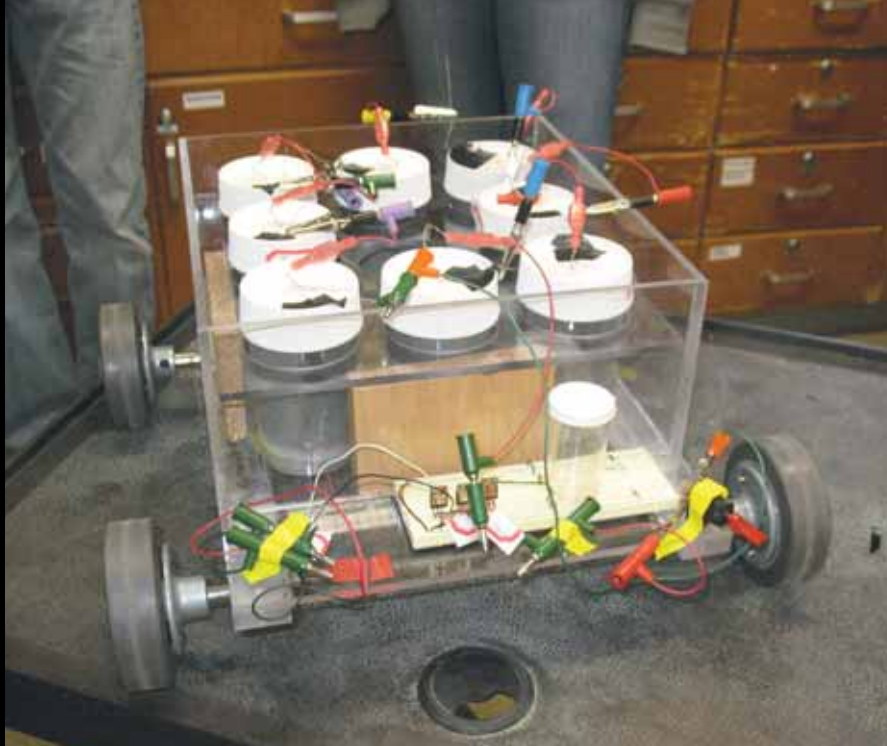
Cutting-edge research isn't just for graduate students. As early as your sophomore year, you can gain valuable experience working with a faculty mentor. This is excellent preparation for graduate school or work in a research laboratory.

Senior Design

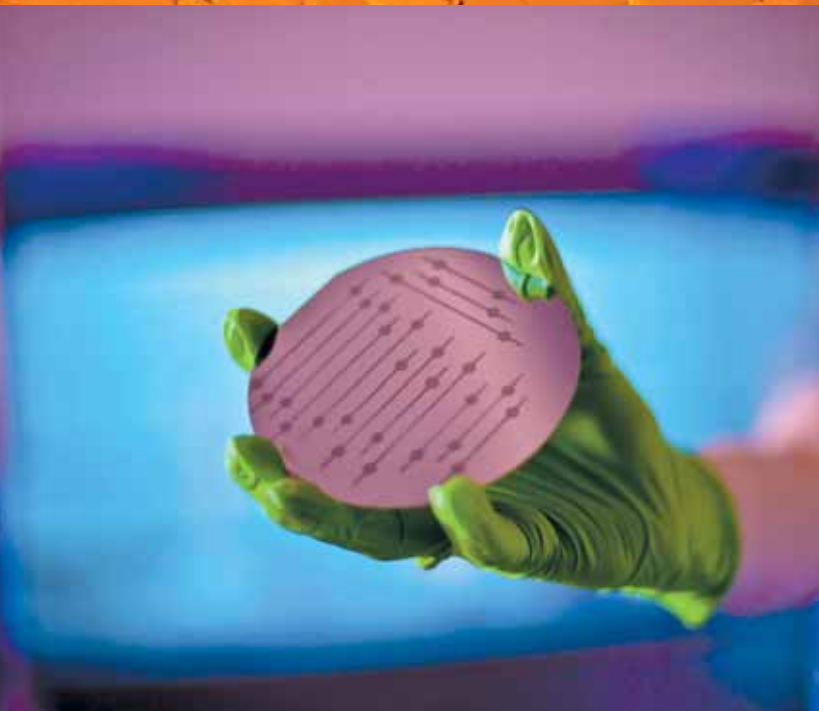
A major component of the curriculum in chemical engineering is a capstone design experience. It involves a series of both team and individual design problems tackled throughout your senior year.

Chem-E-Car

Work on a student team to build a chemical-reaction powered vehicle, and compete in regional and national AIChE Chem-E-Car competitions.



chem.mtu.edu



Career Opportunities

Chemical engineers enjoy an average starting salary that is consistently among the highest in the nation.

Career options include:

- Chemical production or manufacturing
- Mineral processing/mining
- Oil exploration and refining
- Pharmaceuticals, biomedical, or biotech
- Food production
- Consumer goods
- Alternative energy
- Process safety
- Environmental cleanup
- Design engineering
- Consulting
- Medical school
- Law school
- Graduate school

AIChE

Join the Michigan Tech chapter of the American Society of Chemical Engineers, where undergraduate and graduate students, faculty, staff and business leaders come together, make connections, and learn from each other.

COME SEE US

There is no substitute for experiencing in person what Michigan Tech has to offer. We invite you to visit our campus and tour the Department of Chemical Engineering. Call 888-688-1885 to set up a visit.

Advising

Our academic advisor meets with future students to map out academic choices and career development. Please feel free to get in touch. We look forward to hearing from you!

Chemical Engineering Advising

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Engineering Building
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On the cover:
A CO₂ sequestration
experiment, designed to
remove carbon dioxide from
flue gases and store it in
stable mineral form.

CREATE THE FUTURE

Michigan Tech

CHEMICAL ENGINEERING

80 Years of Excellence in Chemical Engineering

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

Michigan Tech offers more than 130 undergraduate and graduate degree programs in engineering; forest resources; computing; technology; business; economics; natural, physical and environmental sciences; arts; humanities; and social sciences.