The BSE undergraduate degree program is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700.

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.

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**BSE Strengths**
- A solid, accredited program in basic engineering principles
- The ability to customize your engineering degree
- Access to new and innovative coursework
- Hands-on learning experiences
- Co-ops and internships
- Multidisciplinary teamwork
- Co-op and internship opportunities

Would you like to pursue your innovative ideas into reality with an engineering degree customized to fit your interests?

**Create your own course of study, or choose from among several defined paths:**

**Industrial Engineering**
As an industrial engineer, you will focus on the optimization of manufacturing processes. You will design, improve, and control processes involving materials, information, and people to achieve maximum productivity at minimum cost. Emphasis is on the planning and control of the physical side of engineering.

**Geospatial Engineering**
As a geospatial engineer, you will combine the use of spatial information, geographic and statistical data, and analytical methods to create 3D maps and geospatial data sets. You will utilize global positioning, satellite, digital, and computer-based community systems, land-use planning, and environmental mapping.

**Service Systems Engineering**
As a service systems engineer, you will develop ways to make service sector industries function smoothly and efficiently. You will design and operate systems for the provision of services while focusing on design, operation, and problem solving. Emphasis is on the management of service sector industries.

**BACHELOR OF SCIENCE IN ENGINEERING**

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CREATE THE FUTURE

**Select Your Emphasis**

**Shape Your Degree**
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**Industrial Engineering**

As an industrial engineer, you will focus on the optimization of manufacturing processes. You will design, improve, and install systems that integrate people, materials, information, equipment, and energy. You will work in a wide variety of businesses to increase sustainability. You will reduce costs associated with new technologies and strive to make work faster, easier, and more rewarding.

**Geospatial Engineering**

As a geospatial engineer, you will combine the use of spatial information science and analytical techniques with geographic data to create 3D maps, geographic information systems, global navigation satellite systems, laser and radar imaging sensors, remote sensing instruments, and more.

**Service Systems Engineering**

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SELECT YOUR EMPHASIS

CREATE THE FUTURE

Systems Engineering

As a systems engineer, you will apply the ability to understand, design, and manage the complex interplay between people and machines in the real world. You will learn how to create, integrate, and evaluate systems in a wide range of industries, from aerospace to healthcare, and beyond.

Geospatial Engineering

As a geospatial engineer, you will combine the use of geographic information software and analytic methods with traditional geographic data to create detailed, understandable models of human activity, transportation systems, and the environment. You will learn to design and analyze spatial data, analyze and interpret spatial information, and make informed decisions based on that data.

Mining Engineering

As a mining engineer, you will design, plan, and supervise the extraction of minerals and energy from the earth, with a focus on safety and sustainability. You will design layouts for underground and surface mines, design blast patterns for rock fragmentation and excavation, design ventilation plans for underground mines, and monitor the safety of personnel and equipment.

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D80 Center
Many challenges confront our planet’s inhabitants, particularly the 80 percent not typically considered by those creating infrastructure, goods, and services. Everyone must play a role in elevating the quality of life for all while ensuring that future generations can thrive. This starts with the courage to serve others and the ability to envision new solutions. Michigan Tech’s D80 Center provides education, service, and research opportunities for students interested in gaining valuable professional experience while making a difference in the lives of others. For more information, visit the D80 Center online at www.d80.com.

Undergraduate Research
Cutting-edge research isn’t just for graduate students. Our goal is to nurture your interest in engineering research and help you gain awareness of the vast opportunities available right on campus. You can begin working with a faculty mentor on a research project as early as your freshman year.

Enterprise
Join an Enterprise team and solve real 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. Join an existing team, or help create a new enterprise from the ground up. There are 29 teams across campus that work in areas such as aerospace, information technology, alternative fuels, energy efficient construction, FIRST Robotics, the green campus initiative, integrated microsystems, and the SAE Mini Baja competition. You can learn more online at www.enterprise.mtu.edu.

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Come See Us
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Advising
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Sonar Design
The senior design team works with a small team of students on an underwater robotics system. You can learn more about their experience and the skills you need to become a successful design professional by logging in to the Sonar Design website at www.sonardesign.org.

Undergraduate Research and Design Center
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Advising

Our academic advisors work closely with prospective and current students as they plan their academic programs and careers. Meet with an advisor to plan your academic and career path.

GTW

Gaming Technology and Wargaming

GTW offers students the opportunity to work on cutting-edge projects in the fields of gaming and wargaming. Projects range from software development to game design and include opportunities for students to gain valuable professional experience while working on innovative projects. For more information, please contact GTW at www.gtw.mtu.edu.

About Michigan Tech

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