Vice President for Research

MICHIGAN TECHNOLOGICAL UNIVERSITY

Houghton, Michigan | mtu.edu

Michigan Technological University seeks a visionary leader to serve as vice president for research.

Michigan Technological University is a public research university founded in 1885 in Houghton, Michigan, and is home to more than 7,000 students from 69 countries around the world. Consistently ranked among the best universities in the country for return on investment, our five colleges offer more than 120 undergraduate and graduate degree programs in science and technology, engineering, computing, forestry, business, health professions, humanities, mathematics, social sciences, and the arts. Our rural campus is situated just miles from Lake Superior in Michigan's Upper Peninsula, offering year-round opportunities for outdoor adventure.

More than $102 million in total research expenditures and 16 research centers and institutes help us foster a world-class and diverse faculty, staff, and student population. Working with industry partners and federal institutions like the National Aeronautics and Space Administration and the US Department of Defense, we help shape the future in science, technology, engineering, and mathematics. Our interdisciplinary emphasis and close-knit campus encourage students and faculty to work together across departments to build nanosatellites, deploy underwater robots, and develop the technologies health providers need to do their jobs—better. Our graduate students are scholars dedicated to cutting-edge research, inspiring classroom experiences, and community engagement. Our undergraduate students conduct more than 117,000 hours of paid research annually.

> **More than $102 million in total research expenditures and 16 research centers and institutes help us foster a world-class and diverse faculty, staff, and student population.**

We are Michigan's flagship technological university, grounded in and fueled by our shared vision: to improve the quality of life—and promote mutual respect and equity—for all people.

93%
five-year average placement rate

$102 MILLION
total research expenditures

The Role of the
Vice President for Research

The vice president for research leads Michigan Tech's research, discovery, and creative portfolio. Reporting to the University president and serving as a member of the President's Council, the vice president for research oversees annual research expenditures of more than $100 million and represents Michigan Tech as a top research university to both internal and external audiences. The vice president for research works collaboratively within a shared governance framework to set priorities for institutional growth and investment in research and scholarship. The incumbent also leads strategic initiatives that establish and enhance excellence across a broad spectrum of research activities.

The successful candidate will demonstrate a record of excellence in pursuing, receiving, and managing competitive large-scale funded research projects; has a visionary approach to interdisciplinary research; possesses expertise and insight regarding the future direction of sponsored research, nationally and globally; and has superior leadership and management skills. While maintaining a sharp focus on sponsored research growth, the vice president for research collaborates with the University president, senior vice president for academic affairs, and academic deans to foster research, scholarship, and creative activity across the campus, as well as strengthen Michigan Tech's ties with federal, state, foundation, and industry funding sources, and other research universities.

The vice president's responsibilities include the following:

1. Serve as an advocate for research and scholarship, including championing continued and new investments in physical, digital, and human research capital.

2. Support existing research priorities and infrastructure while also identifying new opportunities for investment and growth.

3. Foster development of interdisciplinary research initiatives.

4. Oversee the University's multiple research centers and institutes, encompassing a wide range of disciplines and locations.

5. Interact, on behalf of institutional and faculty interests, with industry, state, federal, and international research partners.

6. Advance translational research to drive economic development.

7. Provide strategic leadership and support of a research and scholarship ecosystem that furthers institutional goals.

8. Through policy and practice, create and maintain a positive, supportive, and inclusive organizational culture related to research and scholarship.

9. Other duties as assigned.

Personal Qualifications and Requirements

Knowledge, skills, and abilities:

- Ability to articulate a clear vision for the future of research and sponsored programs at Michigan Tech.

- Demonstrated excellent interpersonal, oral/written communication, and presentation skills.

- Demonstrated fiscal responsibility and the ability to manage budgets.

- Demonstrated success in building partnerships among diverse stakeholder groups, both within and external to an organization.

Minimum qualifications:

- Earned doctorate and a scholarly record consistent with an appointment as a full professor at Michigan Tech.

- Experience and success in managing a complex organization, including people, resources, and operating budgets.

- Demonstrated ability to lead change through effective communication, collaboration with stakeholders, vision, creativity, flexibility, and decisiveness.

- Successful track record of competitive funding from federal agencies, nonprofit agencies, and/or industrial entities.

- Ability to obtain a US Department of Defense security clearance, which requires United States citizenship with no dual citizenship status.

- Demonstrated commitment to promoting a culture of safety as a professional value and an essential component of day-to-day activities.

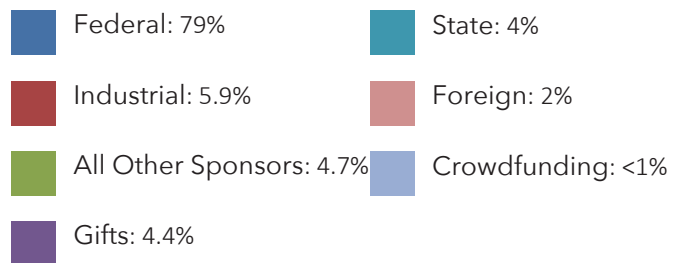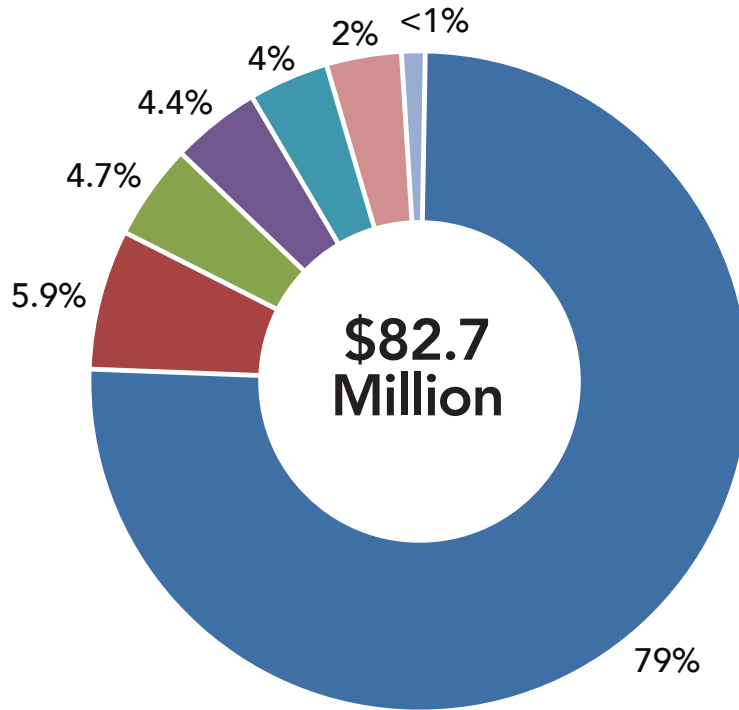## Desired knowledge, skills, and abilities:

- Evidence of engagement in education and training opportunities relevant to the national landscape related to university research.

- An exemplary record of research and experience in fostering collaborative, interdisciplinary research.

- Experience leading or contributing to innovative and entrepreneurial activities in research.

- Experience working with university research centers and institutes.

- Experience working with issues relating to export control.

- Proven leadership ability and collaborative management skills in a shared governance environment.

Federal Funding by Agency
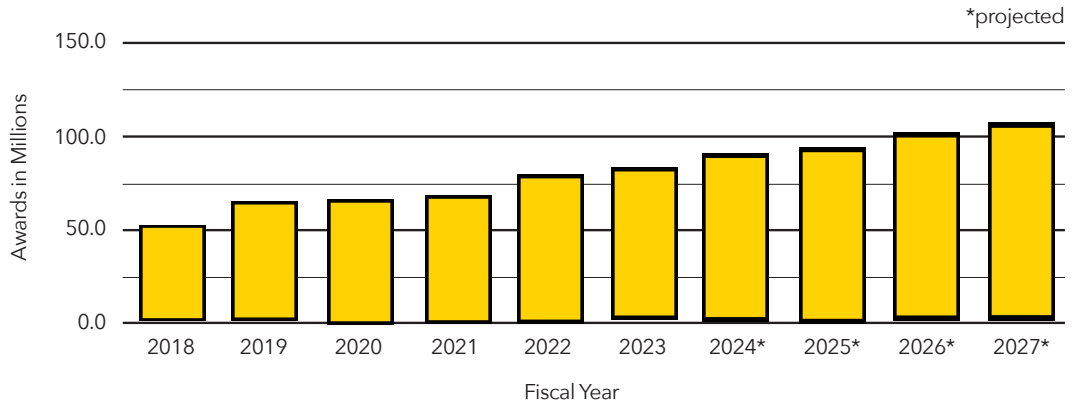# FY2023

$65.3 Million
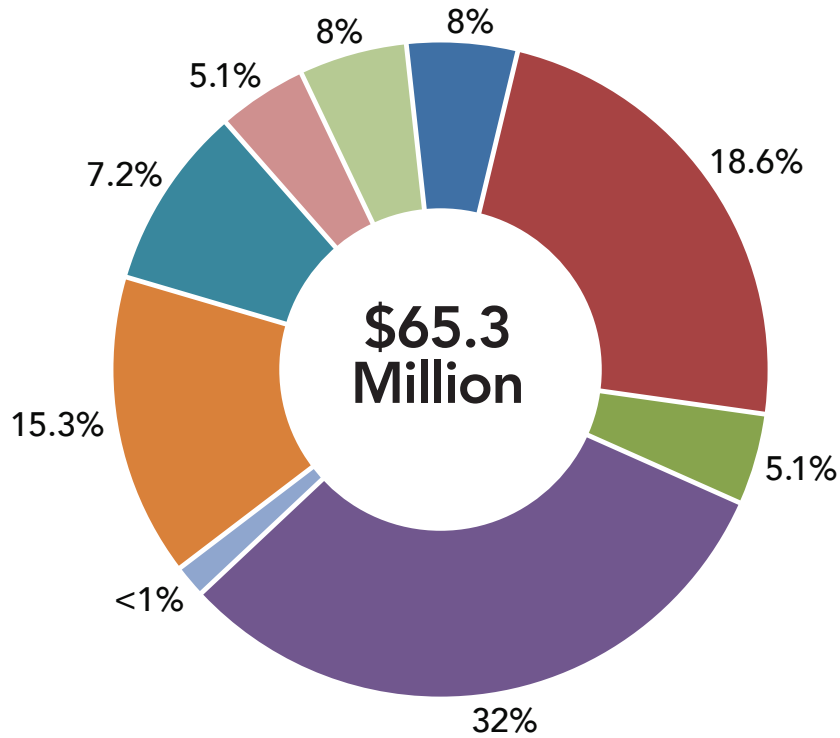
- US Department of Defense: 32%
- National Science Foundation: 18.6%
- US Department of Energy: 15.3%
- NASA: 7.2%
- US Department of Education: <1%
- Other Federal Agencies: 8%
- US Department of Health and Human Services: 8%
- US Department of Transportation: 5.1%
- US Department of Agriculture: 5.1%
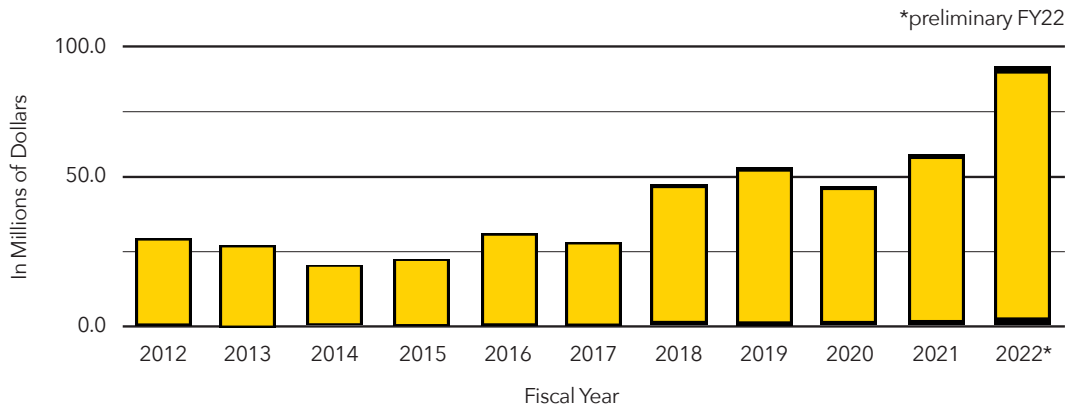
External Funding by Source
FY2023

$82.7 Million

- 79%
- 5.9%
- 4.7%
- 4.4%
- 4%
- 2%
- <1%

Legend:

- Federal: 79%
- Industrial: 5.9%
- All Other Sponsors: 4.7%
- Gifts: 4.4%
- State: 4%
- Foreign: 2%
- Crowdfunding: <1%

Sponsored Awards By Total

*projected

Awards in Millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024* | 2025* | 2026* | 2027* |

Fiscal Year

Research Expenditures

*preliminary FY22

In Millions of Dollars

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022* |

Fiscal Year

2022 Invention Disclosures
Per $10 Million of Research Expenditures

Compared to Michigan Universities

Michigan Technological University	**3.40**
Michigan State University	2.07
University of Michigan	2.52
Wayne State University	1.94

Compared to Other Universities

Michigan Technological University	**3.40**
Georgia Institute of Technology	1.94
Stanford University	2.85
University of California San Diego	2.77
University of Wisconsin/ Wisconsin Alumni Research Foundation (WARF)	2.36

The Vice President
for Research Office

Michigan Tech's vice president for research provides leadership and support to ensure that research expenditures at the University continue to grow. The Vice President for Research Office tracks the research expenditures, along with sponsored awards, federal awards, invention disclosures, and more. Learn more at **mtu.edu/research/about/stats-data**

Research at Michigan Tech spans a wide range of expertise: sustainable engineering, the Lake Superior ecosystem, the emerald ash borer invasion, transportation, ecosystem science—the list goes on and on. The University's Keweenaw Research Center provides applied research solutions through laboratory-based evaluation, computer-based modeling and analysis, vehicle testing and evaluation, and snow research.

The Vice President for Research Office, known across campus as VPR, offers faculty researchers help in identifying potential funding sources, proposal writing, and submission. The office also provides support for developing budgets and complying with federal and state regulations.

The office particularly supports efforts to tie together research programs with undergraduate and graduate education and with community, government, and industrial partners.

The Vice President for Research Office is supported by two associate vice presidents of research and their respective staff.

Associate Vice President for Research Development

The associate vice president for research development supports the development and management of innovative, world-class research and technologies guided by the principles of ethical conduct and safety. The office provides strategic leadership while focusing on coordinating and promoting research excellence and integrity. This includes the facilitation of developmental opportunities and the oversight of centers, institutes, and shared facilities.

The office of the associate vice president for research development assists with research proposal submission, team development, and funding searches; holds networking and development workshops; and helps identify industry and federal research sponsors. It also provides research oversight via the Institutional Animal Care and Use Committee (IACUC), the Institutional Review Board (IRB), and the Institutional Biosafety Committee (IBC); ensures the safety of research laboratory operations; and manages University Chemical Stores (UCS).

Associate Vice President for Research Administration

The associate vice president for research administration provides strategic leadership, direction, and oversight to VPR units handling sponsored programs, sponsored accounting, industry contracting, and technology commercialization. The office also promotes operational improvements to meet the needs of Michigan Tech as a growing research institution.

The role of the associate vice president for research administration is to help the Vice President for Research Office office efficiently handle the administrative needs of a growing research institution, improving the coordination of activities across divisions and serving researchers in a stronger capacity as the University achieves institutional research goals.

College Profile
College of Engineering (COE)

Formed as a training ground for mining engineers in 1885, and with founding legislation that called on us to "promote the welfare of the industries of the state," Michigan Tech has evolved over the decades to keep pace with what tomorrow needs. Today, the COE is home to nine separate academic departments and is the largest college at Michigan Tech.

4,603
COE student enrollment

170
COE faculty

Research highlights

External research expenditures in fiscal year 2023 are anticipated to be $38.5 million in the College, averaging approximately $226,500 per tenure-track faculty member. The National Science Foundation ranks us 85th nationally for total expenditures.

The vast majority of research activity occurs through either University research centers and institutes or multi-investigator teams. We are increasingly pursuing and securing large multi-investigator, multi-university projects.

Our faculty are research-active, with 97 percent submitting proposals in fiscal year 2023 and 84 percent leading externally funded grants at the end of fiscal year 2023.

Industry sponsors contribute 6 percent of the University's sponsored funding, contributing to a culture yielding 3.4 invention disclosures (compared to the national average of 3.44) and 0.99 licenses (national average is 1.41) per $10 million in research.

The H-STEM Engineering and Health Technologies Complex will bring together health-related disciplines from across campus. Other active multi- and transdisciplinary initiatives at Michigan Tech include mobility, health, sustainability, and energy.

The COE endeavors to increase external research funding and research productivity, and continually enable quality PhD enrollments and postdoctoral positions.

Departments

- Biomedical Engineering
- Chemical Engineering
- Civil, Environmental, and Geospatial Engineering
- Electrical and Computer Engineering
- Engineering Fundamentals
- Geological and Mining Engineering and Sciences
- Manufacturing and Mechanical Engineering Technology
- Materials Science and Engineering
- Mechanical Engineering-Engineering Mechanics

Mission and vision

mtu.edu/engineering/about/college-mission
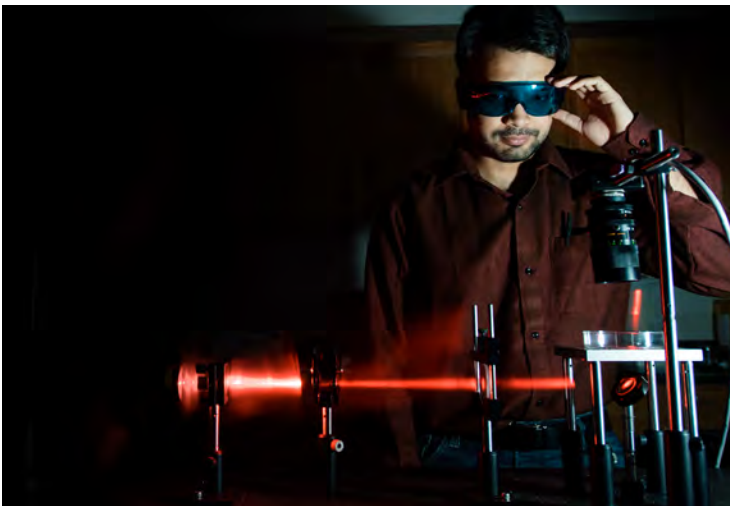
College Profile
College of Computing (CC)

Established in 2019, the Michigan Tech College of Computing is the first, and only, academic unit in Michigan dedicated solely to computing—and one of only a handful of such academic units in the United States. The College is growing fast, with three consecutive years of double-digit growth. In addition, the College has aggressively been creating new academic programs, including cybersecurity, mechatronics, and most recently data science.

Research highlights

The College of Computing grant portfolio totals over $15 million, with 96 active grant-funded projects, which corresponds to 3.4 grants per tenure-track faculty member. The College has 55 active National Science Foundation grants—they are our largest and most frequent sponsor. A total of 78 percent of College of Computing grants are associated with Michigan Tech's Institute of Computing and Cybersystems (ICC); 13 percent are associated with the Great Lakes Research Center (GLRC).

College of Computing faculty and students are engaged in groundbreaking multidisciplinary research across campus, and through the ICC and other Michigan Tech research groups. We are developing cutting-edge software and hardware solutions to proactively address today's societal, technological, and sustainability challenges.

College of Computing researchers transform institutional practices and culture to build equity and diversity on campus, revamp robotics education to meet 21st century workforce needs, and educate the next generation of cybersecurity experts. They investigate best practices for student success and improved retention in engineering technology, build regional health education research infrastructure and contribute to local economic growth, and help computer processors execute applications in a more energy-efficient manner.

Ongoing research includes communication solutions for people with physical and cognitive disabilities, improving mobile device encryption for defense against active attackers, and improving hardware memory management and cache protocols to improve overall system performance.

The College of Computing's footprint includes labs and facilities for artificial intelligence/robotics, compiler/architecture, distributed systems/cybersecurity, graphics and visualization, industrial controls and automation, and robotics and mechatronics, as well as the Computing Learning Center and multiple high-performance computing clusters.

1,164
computing student enrollment

39
computing faculty

Academic programs

- Applied Computer Science

- Computational Science and Engineering

- Computer Network and System Administration

- Computer Science

- Cybersecurity

- Data Science

- Electrical Engineering Technology

- Health Informatics

- Mechatronics

- Software Engineering

Mission and vision

mtu.edu/computing/about/our-college/mission-vision

College Profile
College of Sciences and Arts (CSA)

The College of Sciences and Arts is home to nine academic departments and the Army and Air Force ROTC units. Through 38 different majors, 45 minors, and a significant responsibility for foundational learning and general education across campus, the CSA contributes substantially to the education of every Michigan Tech student. Our strength lies in interdisciplinary research and problem-solving.

1,147
CSA student enrollment

Research highlights

Research focus areas in the CSA include health and quality of life, sustainability and resiliency, and the human-technology frontier.

In the past 10 years, CSA funding sources outside Michigan Tech have continually increased, and CSA faculty have been awarded numerous University research awards, attracting more and more external funding to support their research and scholarship. Research covers everything from environmental policy to the physics and chemistry of novel materials; from the ever-evolving prospects on the frontier of human technology, to sustainability and resilience, to human health and quality of life.

To improve our efforts to mentor faculty, the CSA pursues a number of activities across the College, with departments adopting programs that fit the specific needs of their disciplines. An example is the use of early-career mentoring committees to improve grant development and teaching.
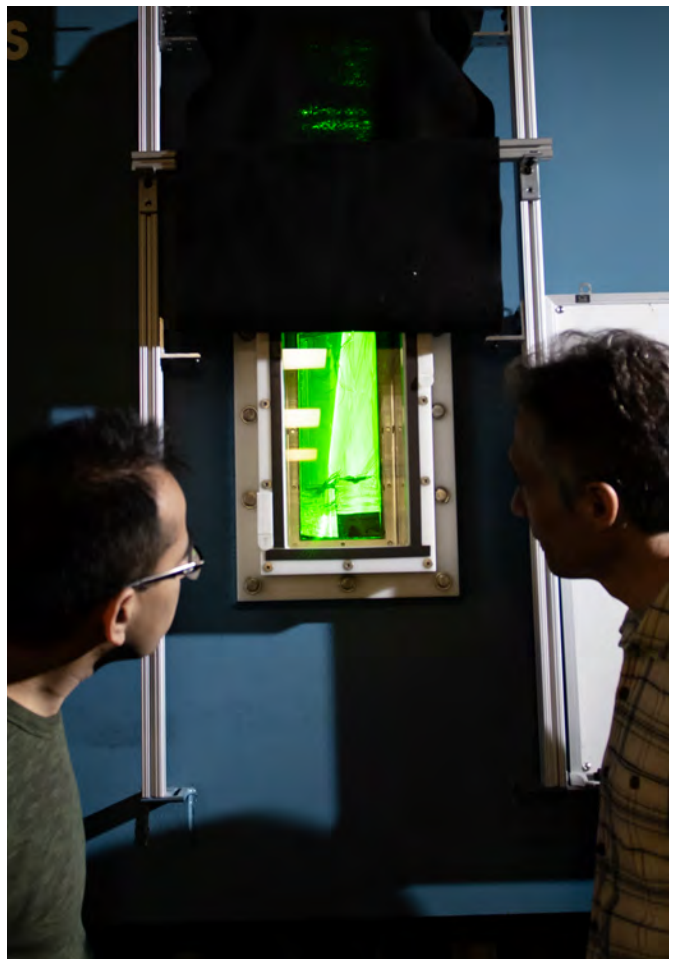
Departments

- Air Force ROTC
- Army ROTC
- Biological Sciences
- Chemistry
- Cognitive and Learning Sciences
- Humanities
- Kinesiology and Integrative Physiology
- Mathematical Sciences
- Physics
- Social Sciences
- Visual and Performing Arts

Mission and vision

mtu.edu/sciences-arts/about/mission-plan

128
CSA faculty

College Profile
College of Forest Resources and Environmental Science (CFRES)

Forestry education began at Michigan Tech in 1936 with the formation of the forestry department. Today, the CFRES and our programs consistently rank highly both regionally and nationally, with multiple rankings among the nation's top 10.

Research highlights

Our growing research program exceeded $7 million in the last fiscal year, and the College ranked No. 1 in research publication citations in a study by the Society of American Foresters published in 2018.

Our research spans the continents, from our base in this diverse Lake Superior environment to biofuel exploration encompassing six countries, three languages, 36 organizations, and more than 100 researchers. Areas of research include forestry; wildlife ecology and conservation; natural resources, applied ecology, and environmental science; biotechnology and molecular genetics; forest biomaterials; and remote sensing and geospatial science.

Multidisciplinary research efforts involve both scientists from other units at Michigan Tech and outside collaborators. These efforts are aided by the following centers and institutes: Ecosystem Science Center, Environmental Restoration Hub, Great Lakes Research Center, Michigan Tech Research Institute, and the recently launched Hardwood Mass Timber Institute.

Analytical capabilities are supported by shared facilities, such as the Lab for Ecological Analyses in Forests (LEAF) housed within the College, the AQUatic Analysis (AQUA) Laboratory, and the Chemical Advanced Resolution Methods (ChARM) Laboratory.

322
CFRES student enrollment

46

CFRES faculty

Academic programs

- Applied Ecology
- Applied Ecology and Environmental Science
- Environmental Science and Sustainability
- Forest Ecology and Management
- Forest Molecular Genetics and Biotechnology
- Forest Science
- Forestry
- Master of Forestry
- Master of GIS
- Natural Resources Management
- Sustainable Bioproducts
- Wildlife Ecology and Conservation

Mission and vision

mtu.edu/forest/cfres-strategic-plan

College Profile
College of Business (COB)

The College of Business stands apart for our STEM-fueled business program, accredited by the Association to Advance Collegiate Schools of Business (AACSB). Dedicated faculty with leading-edge industry experience facilitate small class sizes with active learning environments.

Research highlights

College of Business faculty are well-versed in receiving external funding as well as internal University research grants. In 2022-23, COB faculty made intellectual contributions to 32 academic works with subjects including blockchain management; environmental, social, and governance (ESG) accounting standards; economic impact and analysis; and student empowerment.

The College of Business has become a research hub for economic impact studies. Our economics faculty have collectively completed multiple economic impact studies on the potential effects of the closure of a regional mine, the Houghton County Memorial Airport, dredging the Menominee River harbor, a new battery refinement facility, and a forthcoming study on electric vehicles. These faculty also completed an economic impact study of research expenditures of Michigan Technological University.

483
COB student enrollment

In support of Michigan Tech's charter, our faculty foster societal impact via stakeholder engagement through research innovation and engagement to advance business knowledge and practice.

Almost 40 percent of faculty in the COB hold funded faculty positions that support research and stakeholder engagement and partnerships. One partnership example is the Michigan Small Business Development Center in the Upper Peninsula, which continues to be a model for the entire state. With the College of Business as the host, the UP region has the largest student intern program of any regional office in Michigan.

In recent years, two of our faculty have won the University's Distinguished Teaching Award. COB faculty have also been honored with awards recognizing innovative or out-of-class teaching, collaborative research, and distinguished research.

28
COB faculty

Academic programs

- Accounting

- Business Analytics

- Construction Management

- Economics

- Engineering Management

- Finance

- Management

- Management Information Systems

- Marketing

- TechMBA®

Mission and vision

mtu.edu/business/college/profile

Centers and Institutes

Michigan Tech's research centers and institutes enhance member capacity to successfully pursue research in existing and emergent topical areas. Each brings together researchers with diverse backgrounds and disciplines from multiple colleges and/or departments. Our 16 centers and institutes provide members with various forms of support to garner external funding in a particular research area.

- Atmospheric and Space Sciences
- Computation, Data, Electronics, and Sensing
- Ecology, Ecosystems, and Environmental Policy
- Education and Outreach
- Energy and Sustainability
- Health
- Human Factors and Psychology
- Life Sciences
- Macro-, Micro-, and Nano-Sciences
- Materials and Manufacturing
- Ocean Sciences
- Robotics and Mechanics
- Transportation and Infrastructure

13
areas of
research focus

16
centers and
institutes

Advanced Power Systems Research Center (APSRC)
APSRC is a multidisciplinary organization that fosters large, collaborative research efforts in the areas of clean, efficient, and sustainable power systems technologies. The Center strives to develop the fundamental and applied knowledge required for the next generation of low-emission, high-efficiency vehicles while also being responsive to the economic needs of the state and the energy needs of the nation.

Center for Applied Mathematics and Statistics (CAMS)
CAMS aims to foster collaboration among mathematicians, statisticians, scientists, and engineers; provide statistical consulting for Tech faculty/students and the community; train undergraduate and graduate students; and, mostly importantly, pursue interdisciplinary proposals for external funding where computational mathematics and applied statistics play essential roles.

Center for Technology and Training (CTT)
The CTT works with local road agencies, the Michigan Department of Transportation, the Federal Highway Administration, and other transportation-related organizations to build, maintain, and manage public infrastructure through the coordination of workshops, online training, and large annual conferences; software development, distribution, and technical support; and civil engineering research and technology transfer.

Earth, Planetary, and Space Sciences Institute (EPSSI)
The EPSSI is a focus for interdisciplinary activities in earth, atmospheric, oceanographic and space sciences whose purpose is to enable its members to offer programs and pursue research opportunities in those disciplines that go beyond the scope of individual academic departments.

Ecosystem Science Center (ESC)

Humans, nonhuman organisms, and the abiotic environment create a complex set of socio-ecological processes, patterns, interactions, and connections, and ESC members seek to understand this inherent complexity of social-ecological systems through research in ecosystem ecology; ecosystem response to global change; climate change adaptation and mitigation; carbon sequestration and bioenergy; plant, wildlife, aquatic, and community ecology; invasive species; decomposition; and ecosystem restoration.

Great Lakes Research Center (GLRC)

The GLRC aims to be a leader in interdisciplinary aquatic science and engineering focused on the Laurentian Great Lakes Basin in its entirety through excellence in research education and outreach, striving to become a world-class institute in interdisciplinary aquatic sciences, policy, engineering, and technology. The GLRC develops unparalleled strength and expertise in four core areas: aquatic ecology and ecosystem dynamics, marine engineering and technology, aquatic resources and human dimensions, and education and outreach.

Health Research Institute (HRI)

Researchers in the HRI tackle a variety of health-related challenges to establish and maintain a thriving environment that promotes translational, interdisciplinary, and increasingly convergent health-related research while inspiring education and promoting outreach activities.

Institute for Policy, Ethics, and Culture (IPEC)

By bringing policy, ethics, and culture into the center of inquiry, IPEC creates collaborations on topics key to understanding technocultural change and addresses the policy implications, ethical considerations, and cultural significance of the massive changes and disruptive forces currently underway. IPEC brings together faculty and staff from diverse departments to collaborate on and support research, policy, and teaching that responds to the changing technological environment.

Institute of Computing and Cybersystems (ICC)

The ICC will promote research and learning experiences in the areas of cyber-physical systems, cybersecurity, data sciences, human-centered computing, and scalable architectures and systems for the benefit of Michigan Tech and society at large.

Institute of Materials Processing (IMP)

The IMP exists to provide, maintain, and encourage partnerships for the use of facilities supporting synthesis, processing, and the manufacture of a wide range of engineering materials and product prototypes. Facilities support a wide range of University activities, including production of advanced and experimental materials for faculty-led research, industry-led process development, support of instructional labs, interdisciplinary collaboration, and outreach, and serve as a means to advance the "maker environment" at Michigan Tech by enabling the transition of entrepreneurial concepts into pilot-scale production.

Keweenaw Research Center (KRC)

KRC is a multidisciplinary research center active across a broad spectrum of vehicle development encompassing military, industrial, and commercial vehicle applications for over 60 years. KRC maintains more than 900 acres of proving grounds, including many miles of specially prepared test areas and courses.

Centers and Institutes (continued)

Michigan Tech Aerospace Engineering Research Center (MARC)
MARC serves as a focal point at Michigan Tech for activities related to aerospace engineering through world-class research, fostering undergraduate and graduate educational programs, and providing resource support (when available) to aerospace-engineering-related research projects on campus, particularly those that are supervised by institute members.

Michigan Tech Research Institute (MTRI)
MTRI is a recognized leader in the research, development, and practical application of sensor and information technology to solve critical problems in national security, protecting and evaluating critical infrastructure, bioinformatics, earth sciences, and environmental processes.

Michigan Tech Transportation Institute (MTTI)
MTTI provides the operating structure, resources, recognition, and leadership in a collaborative environment that supports research, education, and outreach leading to sustainable solutions for transportation. This umbrella organization brings together the cross-disciplinary centers and principal investigators who are conducting transportation-related research, as well as education initiatives that address national and global needs.

Research and Innovation in STEAM Education Institute (RISE)
RISE provides services for faculty and staff interested in science, technology, engineering, arts, and mathematics education at all levels. The Institute's purpose is to recognize, strengthen, and encourage collaboration in STEAM education pedagogy through fundamental and discipline-based education research (DBER), and to establish Michigan Tech as a leader in Michigan, the nation, and the world in the area of STEAM education research.

The Elizabeth and Richard Henes Center for Quantum Phenomena (CQP)
The CQP is about people, not places and buildings. It is where scientific dreams—from the desire to understand the fate of the universe to using quantum physics to improve human health—become reality. The Center brings the academic community together to innovate and respond to unusual abilities, qualities, and processes that cannot be explained by means of classical physics and strives to develop, facilitate, and disseminate scholarship on all aspects of quantum phenomena.

To learn more, visit **mtu.edu/research/about/centers-institutes**

Shared Facilities

As part of the University's strategic plan to be a global leader in collaborative, interdisciplinary research, Michigan Tech provides cost-effective access to precision laboratories, equipment, and services through shared facilities. All shared facilities are available for use by MTU students and faculty, as well as researchers at other institutions and government and industry partners.

Advanced Power Systems Research Center (APS LABS)
APS LABS stretches across multiple facilities, including the Advanced Power Systems Research Center (APSRC), the Mobile Lab, Combustion Lab, Bio Plant, and elements of the Keweenaw Research Center (KRC).

Applied Chemical and Morphological Analysis Laboratory (ACMAL)
ACMAL houses an extensive array of electron microanalytical and x-ray instruments managed by the Department of Materials Science and Engineering.

Geospatial Research Facility (GRF)
The GRF brings together researchers from across campus currently using geospatial data and methods and provides a space to those who wish to apply GIS in their research programs. The GRF employs both professional GISP staff and student researchers, and promotes GIS training, real-world project management, and interdisciplinary collaborative research experiences.

High-Performance Computing Facility (HPC)
The HPC is a resource for high throughput and high-performance research and education computing needs.

Marine Research Assets Facility (MRAF)
Part of the Great Lakes Research Center (GLRC), the MRAF has access to a unique set of marine assets with direct access to Lake Superior. Both surface and subsurface assets are available, including four surface vessels and four subsurface vehicles, along with a variety of specialized equipment and trained operators.

Microanalytical Facility (MAF)
MAF laboratories specialize in molecular, elemental, and isotopic analyses for environmental, biomedical, health, and materials research—the Chemical Advanced Resolution Methods (ChARM) Laboratory, the Laboratory for Environmental Analysis of Forests (LEAF), and the AQUatic Analysis (AQUA) Laboratory.

Microfabrication Facility (MFF)
MFF provides resources for micro- and nano-scale research, as well as development of solid-state electronics, microelectromechanical systems (MEMS), lab-on-a-chip, and microsystems materials and devices.

Learn more about these shared facilities at **mtu.edu/research/vpr-office/shared-facilities**

The Value of a Michigan Tech Education

Four decades have passed since Michigan Tech enrolled as many students as it did this fall: 7,320 overall, including 1,463 incoming first-year Huskies.

Continuing a decade-long upward enrollment trend for women at the University, more than 2,200 women chose Michigan Tech this year, the University's highest total ever. Of MTU's incoming first-year students, 27 percent came from outside Michigan—the most in University history—with the largest growth coming from Illinois: an increase of 62 percent. The retention rate for first-year students rose 2.7 percentage points to 86.6 percent, a new University record. Domestic students from historically underserved communities now make up 11 percent of the total student body and 13 percent of the incoming class, tying

Top 20
public college in the nation
(Wall Street Journal)

the all-time high set in 2020. Overall enrollment is up 3.5 percent from last year, marking the third consecutive year of overall enrollment growth for the University, and graduate student enrollment is up 4.3 percent—making this the largest class of graduate students since 2016.

The numbers tell the story: Demand for a degree from Michigan's flagship technological university has never been stronger.

Why?

Because our reputation for graduating top-tier, highly skilled professionals able to make an impact in the workforce is only getting stronger. Over 2,000 recruiters from more than 400 companies— including Dow, Stellantis, Caterpillar, General Mills, and Harley-Davidson—come to campus each September for our fall Career Fair, one of the largest of its kind in the country.

With a placement rate of 93 percent within six months of graduation and a median early career salary of $71,100, Tech alums find work in their field of study and get good jobs that pay them back. Statistics like this are why Tech recently got ranked the 16th best public university in the nation by the Wall Street Journal—and first in Michigan for salary impact.

Michigan Tech faculty and staff work hard to ensure our graduates are prepared not only with a singular set of skills, but with the ability to reinvent themselves to remain relevant with the changing times. Positive enrollment trends and impressive return-on-investment statistics validate their efforts and reaffirm what we know to be true: There is great demand from prospective students for a Michigan Tech education, and great demand from employers for Michigan Tech grads.

Demand for a degree from Michigan's flagship technological university has never been stronger.

#1
best college in Michigan for salary impact (Wall Street Journal)

86.6%
retention rate

7,320
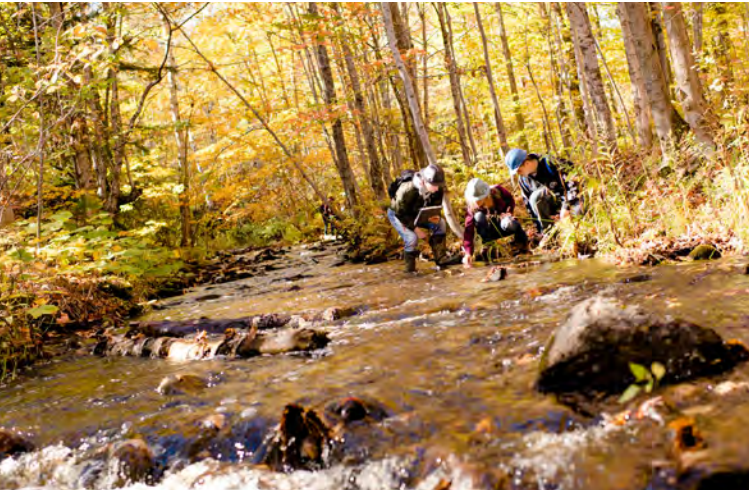largest enrollment since 1983

3.5%
undergraduate enrollment growth over last year

4.3%
graduate enrollment growth over last year

About the University

Our vision:

Michigan Tech is a globally recognized technological university that educates students, advances knowledge, and innovates to improve the quality of life and to promote mutual respect and equity for all people within the state, the nation, and the global community.

Our mission:

To create solutions for society's challenges by delivering action-based undergraduate and graduate education, discovering new knowledge through research, and launching new technologies through innovation.

Our goals:

Michigan Tech will accomplish our mission through interdisciplinary education, research, and engagement with partners to advance sustainable economic prosperity, health and safety, ethical conduct, and responsible use of resources. Our specific focus is on education, scholarship, and people.

- Education: Provide a distinctive and rigorous action-based learning experience grounded in science, engineering, technology, business, sustainability, and an understanding of the social and cultural contexts of our contemporary world.

- Scholarship: Enhance research, scholarship, entrepreneurship, innovation, and creative activities that promote sustainable economic prosperity, health and safety, ethical conduct, and responsible use of resources.

- People: Foster and support an exceptional and diverse community of students, faculty, and staff.

Welcome to the Keweenaw

Our setting on Michigan's Keweenaw Peninsula provides a beautiful backdrop for world-class research and education.

#8
most beautiful small town in America (Architectural Digest)

- Houghton, its sister city Hancock, and the surrounding towns have a combined population of approximately 15,000. With the addition of the Michigan Tech student population, our community grows to more than 24,000.

- Niche.com ranks Houghton as the safest public college in the state of Michigan.

600+
acres of recreational forest to ski, mountain bike, and explore

- Houghton-Portage Township schools rate 10-out-of-10 on greatschools.org, with Houghton Elementary School earning National Blue Ribbon recognition in 2023.

- The Keweenaw Peninsula is temperate, averaging in the low to mid-20s in the winter and mid- to high 70s in the summer. Winter brings more than 200 inches of snow. Summer is consistently sunny.

- The ruggedly beautiful Keweenaw Peninsula is one of the Midwest's top year-round recreation destinations, thanks to its record snowfall and comfortable summers. Recently named one of the "36 Best Places to Visit in the US for Adventure" by Outside, outdoor enthusiasts of all ages and abilities will find ample opportunity to downhill and cross-country ski, snowboard, bike, hike, paddle, camp, golf, and more. Surrounded by Lake Superior, pristine shorelines earned the Keweenaw second place in Lake Superior Magazine's "Top 10 Lake Superior Destinations" list.

- Houghton's historic downtown features locally owned shops, eateries, museums, and brewpubs, while chain restaurants and shopping outlets are a short car ride away on the business strip. You can also explore locally owned stores across the bridge in Hancock and in historic Calumet, just 15 miles north of campus.

- Michigan Tech's arts and entertainment scene is vibrant, diverse, and global. The University is home to the region's premier performing arts venue, the Rozsa Center for the Performing Arts, featuring annual seasons that include touring shows (an annual Broadway tour, dance, music, speakers, comedy, and more), a Michigan Tech Music series (including jazz, symphony orchestra, bands, new music, and choir), Michigan Tech Theatre series (plays, musicals, fringe, and immersive events), and the Michigan Tech Art series.

60+
arts events held at the Rozsa Center for the Performing Arts each season

University Events and Fast Facts

1,421
graduate students

120+
undergraduate programs

45+
master's programs

29
PhD programs

Winter Carnival: Organized by Blue Key National Honor Society, Winter Carnival started in 1922 and has grown to become one of the largest annual winter festivals in the nation. Featuring dozens of one- to two-story intricate snow statues all around campus and the community, this event also brings together students to participate in broomball, comedy skits, sleigh rides, a royalty coronation, a beard contest, and lots of winter fun.

Parade of Nations: Michigan Tech hosts the region's largest, oldest multicultural festival, flying the flags of more than 60 countries represented on campus and in our community. Thousands join us in mid-September for international food, entertainment, and family activities promoting global peace and unity.

To learn more or to apply, visit:

mtu.edu/president/search