





Dean of the College of Engineering

MICHIGAN TECHNOLOGICAL UNIVERSITY

Michigan Technological University seeks a visionary leader to serve as dean of the College of Engineering.





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

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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.

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.

\$102 MILLION total research expenditures



The Role of the Dean of the College of Engineering

The dean of the College of Engineering (CoE) is a forward thinking, innovative, and collaborative leader who provides strategic leadership in the College. The dean is the chief academic and administrative officer in the College, reporting directly to the provost, and shapes the vision for the role of the CoE within the University, the State of Michigan, higher education, and society at large. The dean provides leadership to the CoE department chairs and works with other administrators (vice presidents, deans, and directors), as well as faculty, staff, and students, to promote excellence in research, teaching, and service. The dean is responsible for fostering successful collaborations among personnel within the CoE, other areas of the University, and external constituencies.

The dean's responsibilities include the following:

- 1. Provide leadership to the College and work with other units across Michigan Tech to ensure the University continues to thrive during a time of rapid change in higher education.
- 2. Lead the CoE in developing and implementing Collegewide strategic plans for research and education in support of the goals of the University.
- 3. Work with other senior academic leaders as part of the Deans Council, which meets regularly to advise the provost and provide overall academic leadership to the University.
- 4. Work with the CoE department chairs, providing leadership in the development and implementation of department strategic plans consistent with the CoE vision.
- 5. Advance CoE goals for a diverse, inclusive, and welcoming learning and work environment that creates a sense of belonging for all students, faculty, and staff.
- 6. Promote a culture of safety throughout the CoE.
- 7. Enact a growth mindset, including the successful identification and implementation of a broad and exciting vision to promote growth within the CoE, in alignment with institutional strengths and in partnership with other academic units.
- 8. Actively engage in fundraising and other advancement activities, obtaining resources that support the growth of students and personnel, and improvement of programs and infrastructure within the College and University.
- 9. Enhance and develop relationships with key external constituents, including alumni, government, industry, and foundations, to support departments, the College, and the University.
- 10. Enhance and develop relationships across the University.
- 11. Champion the University vision and mission, as well as strategic initiatives within the College, University, state, nation, and international community.
- 12. Possess and encourage in others entrepreneurial and innovative approaches that value new educational and research initiatives.
- 13. Lead planning, decision-making, and resource allocation activities within the CoE, including providing oversight for decisions made at the departmental level.
- 14. Supervise CoE associate dean(s), the nine CoE department chairs, and CoE office staff, and provide opportunities for career development and increased effectiveness.
- 15. Make recommendations to the provost and president regarding hiring, tenure, and promotion for tenured and tenure-track faculty, and appointments and renewals of instructional-track faculty and academic administrators within the CoE.
- 16. Comply with and provide leadership for initiatives associated with accreditation of programs within the CoE and University.
- 17. Other duties as assigned.

Personal Qualifications and Requirements

Knowledge, skills, and abilities:

- Ability to articulate a clear vision for the future of engineering research, education, and fundraising at Michigan Tech.
- Demonstrated excellent interpersonal, oral/written communication, and presentation skills.
- Proven leadership ability and collaborative management skills in a shared governance environment.
- 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 PhD or equivalent degree in engineering or a closely related discipline.
- Leadership experience at or above a level equivalent to a department chair or head in an academic or research-oriented organization.
- Demonstrated success developing and/or maintaining a diverse, inclusive, and welcoming environment that
 creates a sense of belonging for all students, faculty, and staff.
- 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:

- An exemplary record of teaching at the college level.
- An exemplary record of research and experience in fostering collaborative, interdisciplinary research.
- Experience leading or contributing to entrepreneurial activities in teaching and/or research.
- Experience working within a shared governance environment.
- Experience in generating resources through coordinated fundraising efforts, including relationship-building with potential donors.

College Overview



The College of Engineering (CoE) is home to nine separate academic departments, with over 4,000 students, 170 faculty, and 110 staff.

Our vision:

The College's vision is to create a sustainable, just, and prosperous world.

Our mission:

The mission of the College is to deliver world-class education, research and leadership to the State of Michigan, the nation, and the world.

Our culture:

The College promotes a culture that values teamwork and collaboration, and recognizes all contributions of faculty, staff, and students to meet our mission. We acknowledge the importance of broadening participation in an inclusive environment. We reinforce the importance of leadership, integrity, safety, innovation, and excellence in all that we do, and our stakeholders expect these values in our graduates. To facilitate this culture, the CoE provides support to our departments, faculty, and staff as they deliver world-class education and research in an environment where continuous improvement is a top priority.

Our core values:

The College's core values are leadership, integrity, impactfulness, inclusiveness, and excellence.

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

To learn more, go to: mtu.edu/engineering/about/college-mission

Guided by the University's Strategic Plan and Portrait 2045, the College coordinates closely with faculty and department efforts to strategically grow our enrollment and impact the communities we serve. The College and department leadership develop top annual priorities, being cognizant to sustain ongoing initiatives.

Goals in the College of Engineering:

- To refine the CoE's vision and strategy to position the College to continue research, education, and economic growth trajectories via inclusive initiatives to achieve University and College goals. The new dean is enabled to lead efforts to strategically and judiciously align finite resources to support growth.
- The CoE is the largest college at Michigan Tech, with 4,063 students out of a total of 7,320. The College has 663 graduate students, of which 236 are PhD candidates.



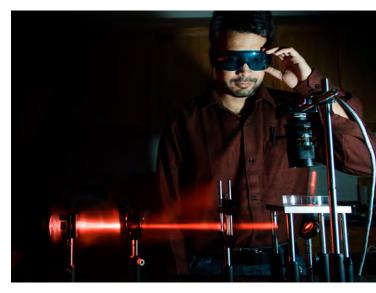
- External research expenditures in fiscal year 2023 are anticipated to be \$38.5 million in the College, averaging approximately \$226,500 per tenure-track faculty member. The National Science Foundation ranks us 85th nationally for total expenditures.
- The vast majority of research activity occurs through either University research centers and institutes or multi-investigator teams. We are increasingly pursuing and securing large multiinvestigator, 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 College is engaging in an ongoing effort to impact the improvement of facilities and growth of faculty, staff, and external graduate support resources.
- 2. To hire, develop, and retain outstanding faculty and staff.
- With nearly half of our faculty hired in the past nine years, we have multiple initiatives

- supporting career development, such as Early Career Management committees, Advanced Career Management peer mentoring groups, the Instructional Track Faculty Mentoring Program, the Faculty Fellow Program, and sabbaticals as foundations for faculty.
- Faculty and staff attend professional conferences and leverage on-demand training to support their professional development.
- Michigan Tech is a National Science Foundation ADVANCE institution. Recent ADVANCE efforts have focused on campuswide programs including Advocates and Allies, Advanced Career Mentoring, and other initiatives to develop leaders on campus.
- Women comprise 22 percent of tenure-track faculty and 28.5 percent of instructional-track faculty.
- The College seeks to hire diverse faculty with competitive startup packages, and offers incentives for retaining exceptional faculty.
- To increase the collaborative, multidisciplinary research conducted in the CoE, with an emphasis on graduate students, research positions, and infrastructure.
- Collaborative, multidisciplinary research is foundational to the College's character, and we continue to reduce barriers between disciplines.

- Via the State of Michigan's capital outlay process, a new health science building the H-STEM Engineering and Health Technologies Complex—will be completed in spring 2024. The vision for this facility is to 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. To this end:
 - The greatest growth over the last 10 years has been in coursework and online MS programs and graduate certificates, accompanied by steady increases in our PhD programs.
 - Women comprise 24.2 percent of PhD students.
 - Michigan Tech was recently ranked 12th overall in the nation for salary impact by the Wall Street Journal—the highest ranking among Michigan colleges and the second-highest ranking among US public colleges.
 - Opportunities exist to grow and align graduate programs to support longterm research excellence goals.
- To inspire creativity, possibilities, and breadth in engineering and applied science via innovative and contemporary educational approaches.
- First-year students at Michigan Tech earned an average 3.83 GPA in high school.
- Student recruitment efforts include a robust national recruitment campaign to increase the size and diversity of the MTU student body.
- Michigan Tech faculty provide a practical, hands-on education closely aligned with industry. Our Enterprise Program enrolls







more than 800 students per year and provides a unique experiential education; 73 percent of our 26 Enterprise teams are supported by external funds.

- Michigan Tech's new general education program, Essential Education, will be implemented in fall 2025. This program will increase flexibility in all curricula and provide opportunities for students to gain additional experiences and credentials to prepare them for career success.
- CoE graduates are prized for their technical prowess, with a 93 percent job placement rate and \$70,000-plus median starting salary.
- Women comprise 30 percent of CoE undergraduates—and this percentage has steadily increased each year.
- Michigan Tech is committed to supporting a diverse and inclusive community of and for scholars.
- 5. To cultivate external relationships and creatively leverage financial resources in order to grow the CoE's academic and scholarly initiatives,

along with needed instructional, experiential learning, and research infrastructure.

- The University's Portrait 2045 outlines a vision for the institution, and the strategic goals align with this portrait. Opportunities exist for the College to more efficiently and effectively align resources with strategic goals and the historic progress toward those goals.
- Past investments in equipment, people, safety, and space have manifested in core research facilities on campus, an annual resource distribution for these facilities, internal funding competitions, faculty hiring, and promoting a culture of safety.
- Cultivation and engagement of alumni, alongside streamlined facilitatory policies and practices, will help strategically enhance infrastructure and grow the College.
 Opportunities stem from many alumni with strong affinities to their departments.
- The CoE also engages closely with departments and the Office of Advancement to attract resources that assist with the University vision and Portrait 2045.



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

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

students from historically underserved communities now make up 11 percent of the total

student body and 13 percent of the incoming class, tying 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.

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#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/provost/hiring-initiatives