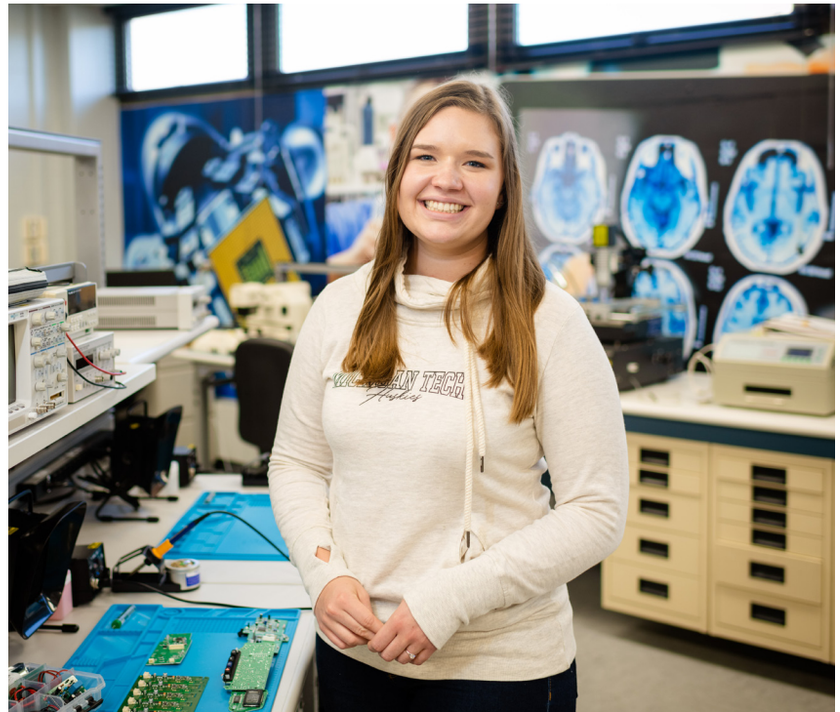
FY2025 Five-Year Capital Outlay Plan

Michigan Technological University


HUSKY A200™



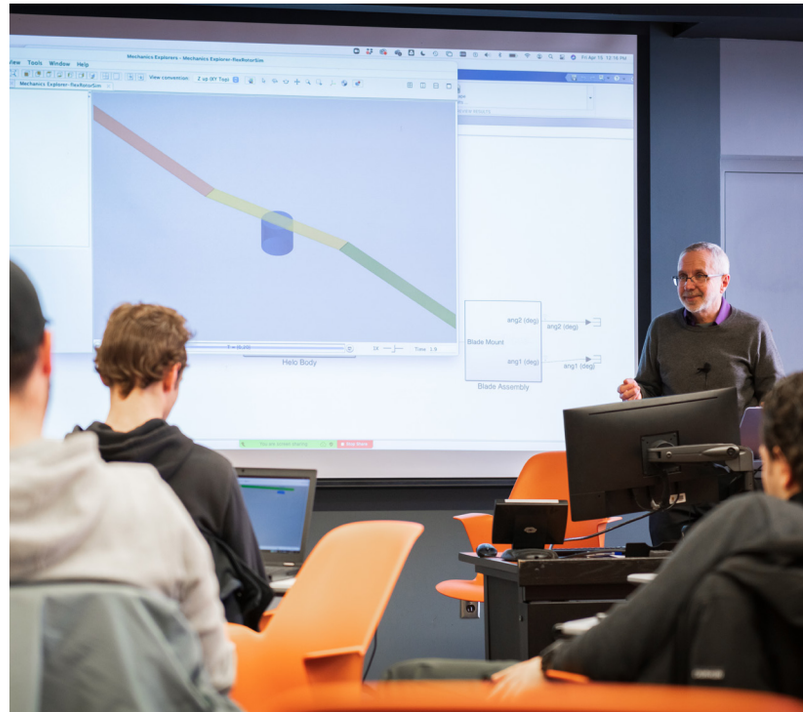

Hello Body
Blade Mount
Blade Assembly

Table of Contents

Mission

Creating Solutions

The mission of Michigan Technological University is 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.

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.

93.8%

93.8 percent five-year average job placement rate for undergraduates

#1

Ranked **No. 1** public college in Michigan and second in the nation for salary impact (Wall Street Journal)

289K

289,776 square feet of research space on campus

Tech Forward Initiatives

"The Tech Forward initiatives provide a framework for Michigan Tech's leadership into the future in the Fourth Industrial Revolution. They are the product of multiple conversations centered around areas of excellence and opportunity that included voices from across the University, the local community, and our alumni. These conversations converged around exciting themes that will ensure the focus of our efforts for the future."

Andrew Storer
Provost and Senior Vice President for Academic Affairs

Michigan Tech's Ongoing Institutional Initiatives:

- Health and Quality of Life
- Data Revolution and Sensing
- Policy, Ethics, and Culture
- Education for the 21st Century
- Diversity and Inclusion
- Autonomous and Intelligent Systems
- Natural Resources, Water, and Energy
- Sustainability and Resilience
- Advanced Materials and Manufacturing

Tech Forward Initiative: Health and Quality of Life

Vibrant Community

We learn more every day about the impact that stress, eating habits, and routine functions like sitting and sleeping have on our long-term health. Wellness is multifaceted and often a community endeavor. As a University, we're examining the ways in which humans can build vibrant communities of well-being while simultaneously creating technology to improve the human condition.

A strong community increases an individual's quality of life, and healthy people foster a nourishing community. Research shows that students do best—both in their studies and later in their careers—when they feel a sense of belonging on their college campuses. Faculty and staff thrive in their positions when they feel supported and have a sense of purpose.

Integrating well-being into our curriculum teaches healthy habits and creates a feeling of connection in students. Initiatives that provide mentoring and professional development for faculty and staff keep them excited about their careers and intellectual endeavors.

Training students to create the future of health and quality of life occurs in multiple academic departments, including Kinesiology and Integrative Physiology, Biological Sciences, Biomedical Engineering and Cognitive and Learning Sciences. The H-STEM Complex, opening in spring 2024, will be a focal point for health related education and research. These departments continue to increase their academic program offerings in response to the needs of the State of Michigan, including the recent addition of a BS in Nursing program in the Department of Biological Sciences.

Many of those endeavors involve research to improve the human condition. National Institutes of Health (NIH) funding for health research on campus has more than tripled in just the last five years. Researchers are exploring diverse solutions for some of the greatest challenges to health and well-being, including diabetes, Alzheimer's disease, lack of sleep, and anxiety. And unlike many other universities, our health research labs involve students—undergraduate and graduate—in meaningful ways.

For students, exploring how to do research builds belonging and marketable skills. For faculty and staff, research that matters in people's daily lives is filled with purpose. **For everyone, the goal is shared enthusiasm, rigor, and well-being.**

"There's a big role communities can play in the health of their residents. Chronic diseases don't occur in isolation, but rather are closely affiliated with an individual's culture, behavior, and environment."

Guy Hembroff
Director of the Health Informatics Graduate Program

Tech Forward Initiative: Data Revolution and Sensing

The Future of Business and Computing

"Digital transformation is revolutionizing every industry, and every successful company is scrounging to attract a high-quality tech workforce. The College of Computing at Michigan Tech was specifically created to train the workforce of tomorrow that Michigan needs today."

Dennis Livesay
Dave House Dean of Computing

Computing and computer science are no longer subfields of engineering, math, or science; they're suffused in nearly every academic discipline. In particular, digital technology has reshaped business competition and the fundamental business disciplines themselves.

Computational skills are a job-market requirement. It's estimated that more than 80 percent of middle-skill jobs—those that require more education or training than a high school diploma—require digital skills. And digital literacy is a minimum standard in nearly every business occupation.

In recognition of cyber technology's role in Michigan's economy, **Michigan Tech launched a new College of Computing** on July 1, 2019—the first and only college of its kind in the State of Michigan. The College of Computing and the College of Business, together with Michigan Tech's entire academic enterprise, intend to meet the technological, economic, and social needs of the 21st century—and answer industry demand for talent in artificial intelligence (AI), business analytics, software engineering, machine learning, data science, and cybersecurity.

Through the Center for Convergence and Innovation, Michigan Tech will prepare students for lifelong prosperity and employability through relevant, contemporary academic programs steeped in digital technologies—supporting and driving cutting-edge, market-centered research in computing fields. The Center for Convergence and Innovation will transform the University into an academic institution that reflects the technological, economic, and social realities of the Fourth Industrial Revolution.

Tech Forward Initiative: Policy, Ethics, and Culture

The Institute for Policy, Ethics, and Culture

Algorithmic culture. Medicine and biotechnology. Autonomous and intelligent systems. Surveillance and privacy. The technological changes and disruptive forces of the 21st century are urgent, complex, and vast. To explore the policy implications, ethical considerations, and cultural significance of life in a connected world, Michigan Tech launched a new Institute for Policy, Ethics, and Culture (IPEC) in fall 2019.

"My focus is to bring ethics and culture into the center of inquiry vis-a-vis policy implications, while continuing to create collaborations to investigate techno-socio-cultural issues such as algorithmic culture, misinformation, ethics and AI, autonomous systems, robotics, surveillance and privacy, healthcare, bioethics, and overall human relationships in and with the changing environment."

Stefka Hristova
IPEC Director and Associate Professor of Digital Media

"Technological advances are necessary, but not sufficient to address global challenges related to human well-being, ecosystem health, and a changing climate. IPEC will foster innovative and forward-thinking policies, grounded in science and cultural insight. A primary goal of IPEC is to guide the ethical development and deployment of technology toward the 'future we want.'"

Sarah Green
Professor of Chemistry

"Technology is a new culture, it's not just a backdrop. People tend to take extreme stances– they celebrate technology or they criticize it. But the best path forward is a participatory stance, one where people–not algorithms– make choices about when to use technology, when to unplug, and what data is or isn't shared."

Soonkwan Hong
IPEC Associate Director and Associate Professor of Marketing

Tech Forward Initiative: Education for the 21st Century

We live in a time where change is constant, rapid, and often disruptive. **Technologies have evolved** to take on our more mundane tasks; artificial intelligence and automation continue to enter the mainstream, displacing humans in fields for which students are currently preparing while simultaneously creating jobs few are trained for.

To prepare the student of today to address the needs of society at a level that machines cannot, it's imperative to consider the whole student—not only their development as highly skillful and knowledgeable participants in their chosen fields, but also their growth as individuals with the competencies to manage uncertainty and change.

With this in mind, the Pavlis Honors College identified **nine key abilities** that every student in the College is encouraged to cultivate through critical reflection, design thinking, and interdisciplinary collaboration:

- Value diverse perspectives
- Engage in mentorship
- Communicate empathetically
- Welcome challenge
- Learn deeply
- Embrace ambiguity
- Balance confidence and humility
- Know yourself
- Act with purpose

Pavlis students intertwine their major with a series of experiences they design themselves and build on their skills, interests, and values. Honors College staff leverage Michigan Tech's great network of faculty, staff, and alumni to build partnerships and create opportunities for students. "Students are excited about their work with the Honors College through the Honors Pathway program, and this interest is reflected in continued increasing enrollments," said Provost Andrew Storer.

A working group formed through the Tech Forward Initiative Education for the 21st Century is working to implement the nine honors abilities across Michigan Tech through the development of a revised General Education program. This Essential Education program will prepare Michigan Tech graduates to be self-aware, resilient, and confident as global citizens and lifelong learners.

Inclusive by Design

A STEM degree has advantages. A recent Pew Research Center analysis indicated that STEM workers typically earn more than those in other jobs. However, the study also revealed that Black and Hispanic workers are underrepresented in STEM jobs relative to their shares in the U.S. workforce as a whole. Meanwhile, women remain underrepresented in engineering, computer, and physical science occupations. Michigan Tech recruited our most diverse incoming undergraduate classes to date for the past three years. Yet, as we continue this trajectory toward leadership in the Fourth Industrial Revolution, we must focus our efforts to achieve our vision of promoting mutual respect and equity for all people.

The other facet of this vision is to equip all our students, faculty, and staff with critical skills and competencies to lead and serve an increasingly multicultural world. Twenty-first century problems will require 21st century perspectives and a culturally fluent workforce. This not only means developing technical skills and increasing the proportion of diverse employees, but also ensuring that all workers have effective cross-cultural skills to develop innovations based on many viewpoints—because broad-based inclusive solutions are the best solutions. This outlook will be part of our institutional DNA to fulfill our mission of addressing society's challenges by delivering action-based undergraduate and graduate education.

Michigan Tech recognizes these challenges and will do our part. Our objective is to create and maintain learning, working, and living environments where all students, faculty, and staff experience the richness of diversity, equity, inclusion, and a sense of belonging (DEIS) across the institution.

To reach this goal, we are:

1. Weaving and sustaining DEIS as an intrinsic component of who we are as articulated by Michigan Tech's vision
2. Leveraging intentional strategic planning processes and both internal and external collaborations to infuse DEIS across the University
3. Recruiting, hiring, and retaining a diverse workforce of faculty and staff as well as recruiting and retaining a diverse student body to reflect our national and global demographics
4. Collaborating and supporting retention programs and initiatives designed to educate and support a campus community that experiences a sense of belonging

Tech Forward Initiative: Autonomous and Intelligent Systems

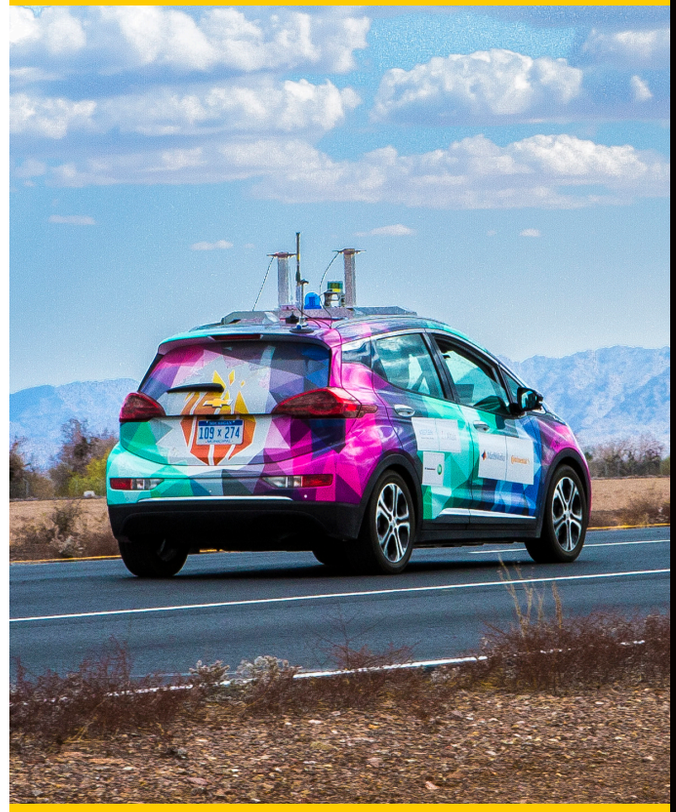
Perhaps no products of the 21st century are more relevant to Michigan and the Great Lakes region than autonomous vehicles and vessels.

A whole division of **Ford Motor Company** is dedicated solely to the research and development of self-driving car technology. Currently, Ford Autonomous Vehicles has around 90 Ford Fusion Hybrid sedans equipped with self-driving technology. This fleet of self-driving cars is being tested on the streets in California, Arizona, and Michigan. And in just a few short years, Ford's goal of a fully autonomous car in production will be a reality. **General Motors** also made it clear it was going all-in on autonomous vehicles (AVs) and believes that all AVs should be EVs (electric vehicles), so their efforts will clearly advance their vision of zero crashes, zero emissions, and zero congestion, and help build a more sustainable and accessible world. And autonomy isn't limited to land alone. Out on the water at Michigan Tech's Marine Autonomy Research Site (MARS), industry, governments, and foundations are investing in autonomous vessel research to improve maritime travel and transport. **MARS is the first freshwater test bed of its kind in the world.**

Innovations in autonomy for vehicles and vessels are a harbinger of disruption across a wide range of industries, including many if not most of the industries in Michigan. They're also a source of concern for the average citizen—people are rightly concerned about the ethical and social impacts of automation and the construction of intelligent systems.

For Michigan Tech researchers, **engineering and perfecting these systems** in dirty and dangerous environments—like the Upper Peninsula's extreme weather conditions and off-road settings—is the right way to explore and demonstrate to the public the capabilities of automated and intelligent systems in a safe context. Researchers at the University are currently working to make self-driving cars safer on snowy roads.

As a key research area that spans civil engineering, mechanical engineering, electrical engineering, computer science, cognitive science, and many more, mobility needs more than traditional paths to move the field forward. Whether underwater or on the road, **Michigan Tech takes autonomy to the ends of the Earth and beyond.**



Beyond the traffic signs, outside the yellow lines, autonomy at the ends of the Earth—**Michigan Tech excels in unstructured environments.**

Tech Forward Initiative: Natural Resources, Water, and Energy

Finite resources and a changing climate demand that humans reconfigure our relationship with the environment. Through innovative technocentric education, transdisciplinary research, and improvements to our local environments, we can study and solve grand challenges in natural resources, water, and energy.

At most colleges and universities, the academic model is organized into disciplines. Each discipline provides its own perspectives, and each perspective has its own strengths and limitations. When these different perspectives are woven together, **our understanding of large challenges is much more complete.**

"New sensors, new platforms seem to come online several times a year—so how do we take advantage of that rapid innovation and hardware and make them available on a practical basis? Somebody has to do the testing to make sure the tech collects what's needed, and that's part of the niche we fill."

Colin Brooks
Research Scientist, Michigan Tech Research Institute

One of the most effective ways to bring vastly different disciplines together is to assemble a team to solve a pressing problem. The challenge provides the motivation for each expert to learn the languages of the other fields, to work to truly understand the approach, and to collaborate on strategies. In the same vein, complex, local-to-global problems of managing natural resources, including energy and water, are best solved through the interaction of diverse and broad disciplines.

For example, a transdisciplinary team at Michigan Tech published a report in April 2022 on the feasibility of converting abandoned mines into valuable energy storage. Michigan Tech researchers and students in engineering, industrial archaeology, and energy policy partnered with local communities to transform what many see as liabilities into pumped hydro energy storage facilities. In Michigan's Upper Peninsula, which is home to countless abandoned mines and some of the nation's highest electricity rates, the project could profoundly impact the livelihood of many rural communities.

At Michigan Tech, our innovative teams work across boundaries, scales, and disciplines to investigate and solve multifaceted issues in natural resources, water, and energy.

Tech Forward Initiative: Sustainability and Resilience

Michigan Tech has adopted a strategic plan for sustainability and resilience to elevate our environmental performance and bolster our solutions-oriented research and educational programs. Key highlights of the plan include:

- Reducing our carbon footprint by 50 percent by 2035
- Decreasing our per capita solid waste stream by 1 percent annually through 2035
- Creating three to five new or retooled courses in sustainability and resilience each year through 2026
- Providing at least three faculty research fellowships each year through 2026 to expand interdisciplinary work in sustainability and resilience
- Engaging at least 50 percent of our students and staff through peer-to-peer education networks

"Michigan Tech's mission is to create solutions for society's challenges through our research and education programs. Sustainability and resilience present some of the most formidable of these challenges, and we are approaching this work both as a responsibility to our community and an opportunity to strengthen our core mission."

Alan Turnquist
Director of Sustainability and Resilience

Tech Forward Initiative: Advanced Materials and Manufacturing

Reduce. Reuse. Remake. Recover. Renew.

These strategies—the five R's—are central to a circular economy, one in which the life of any good or material bought, sold, used, and discarded is extended as far as possible to curb extraction, pollution, and waste.

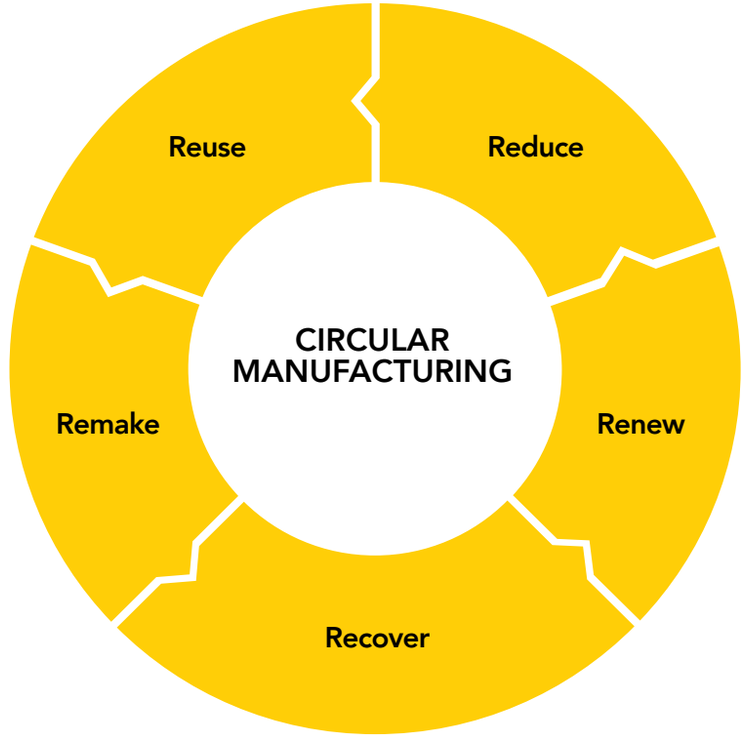
Circular manufacturing is the philosophy and practice of extending the useful life of materials and products through design for disassembly and reuse. It's a vital tool in addressing environmental crises like biodiversity loss, resource scarcity, and pollution.

Currently, only 8.6 percent of the global economy is circular, but an estimated 30 percent of large corporations have a circular strategy, and over 75 percent plan to adopt targets that will make their products, processes, or business models more circular in the next few years. And manufacturers around the world are building a business case for a circular strategy.

In carrying out our charge to promote the welfare of Michigan's industries, **Michigan Tech stands among global leaders** in experimental and digital design of advanced materials, like the composites materials at the heart of our work for the NASA Space Technologies Research Institute. We are renowned for our capabilities in microfabrication and the manufacture of metal alloys, concrete, composite materials, and wood products.

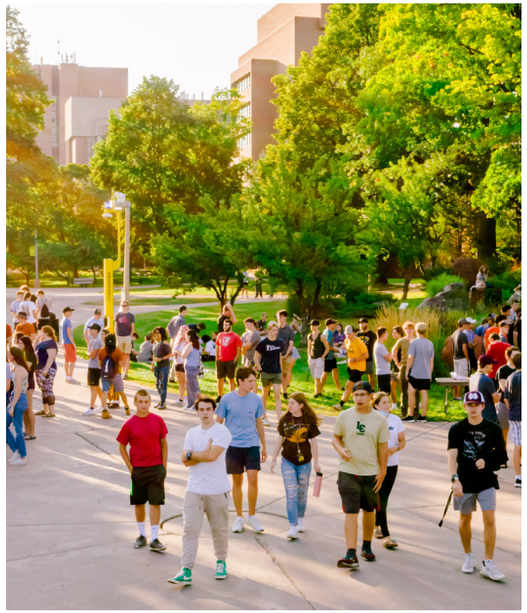
Currently, most circular economy initiatives are individual projects focused on physical materials and resources. However, to scale these solutions globally and across industries, we need to build coherent **digital foundations** to support attractive global circularity business models and accelerate the journey toward circularity.

As the world moves toward a global economy, there is much room for innovation in materials and manufacturing technologies as well as advancements in the digitalization of business ecosystems that support a circular strategy. And **Michigan Tech is ready to lead the charge.**



Enrollment

Growing Michigan's Workforce



This year's total enrollment of underrepresented domestic minority students represents more than **11 percent** of the student body.

The average high school GPA of the entering class is **3.83.**

There are **2,206** women enrolled at Michigan Tech this fall, representing **30.21 percent** of the student body.

7,320

The number of students enrolled at Michigan Tech during fall 2023

2,206

The number of women enrolled at Michigan Tech

1st

Ranking among public universities nationwide for students who said they made the right choice

(Wall Street Journal/ Times)

Staffing

MICHIGAN TECH
STAFFING

Michigan Tech Faculty Talent

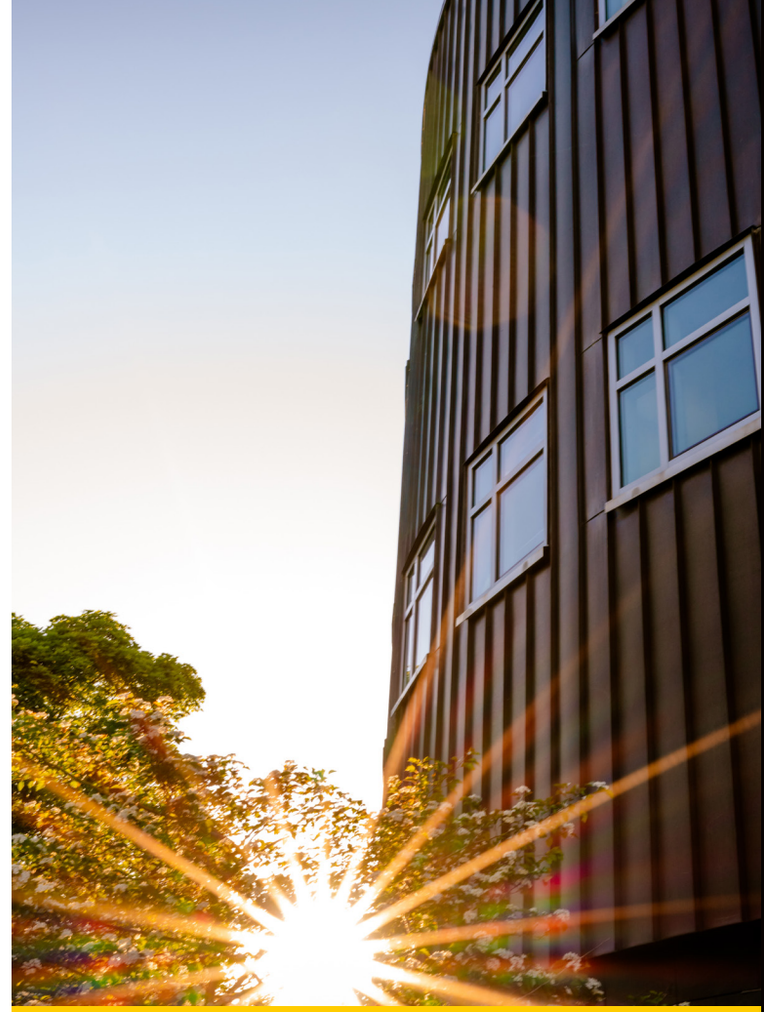
Ensuring the State of Michigan is a National Leader in Digital Transformation

What we are witnessing is no less than the greatest transformation of the economy and of work since the Industrial Revolution and no less challenging. The World Economic Forum predicted in its Future of Jobs Report 2020 that 85 million jobs will be displaced by 2025 through automation and technological advances. That said, 97 million new roles will be created as humans, machines, and software work together. Many initiatives in Michigan already address this, but the urgency isn't high or broad enough yet. The digital future is now. We must move beyond trying to salvage the analog jobs of the past and instead work to create and support the digital jobs of the future.

Michigan Tech's College of Business (COB) is already addressing the digital transformation's impact on the needs of businesses with curriculum offerings that include courses in accounting data analytics, marketing analytics, fintech, and commercialization of technology. The COB has intentionally built a tech-savvy business faculty through strategic hiring of faculty with STEM degrees and tech-industry experience. COB faculty focus on technological innovations, commercialization, and entrepreneurship.

The College of Computing (CC) at Michigan Tech is Michigan's first and only college of computing. Michigan Tech reaffirmed our role as a leader in promoting economic prosperity and preparing the workforce of the future by investing in the formation of the CC—which remains unique in the state. CC faculty are active in collaborative cross-disciplinary research projects, while also providing learning experiences in computing education, cyber-physical systems, cybersecurity, data sciences, artificial intelligence, human-centered computing, and scalable architectures and systems. The CC alone saw a 16 percent increase in undergraduate enrollment for fall 2023 and remains on track to double in size by the end of the decade. This will be achieved through a combination of strong demand for existing programs, along with aggressively creating new programs. For example, the CC created four new programs this year, including a BS in Data Science, MS in Applied Computer Science, and two new graduate certificates in Health Informatics that complete the modularization of the health informatics master's degree.

The intentional mixing of faculty and educational programming in the new Center for Convergence and Innovation (CCI) will remove traditional academic silos and allow for cutting-edge preparation of students for success in Michigan's high-tech economic sectors. The CCI will significantly improve Michigan's ability to recruit and retain the talent needed to position itself as a leader throughout the 21st century.



The Center for Convergence and Innovation (CCI) will promote collaborations among researchers and leaders in business and computing that will support economic development throughout all segments of Michigan's industries.

Michigan Tech Faculty Talent

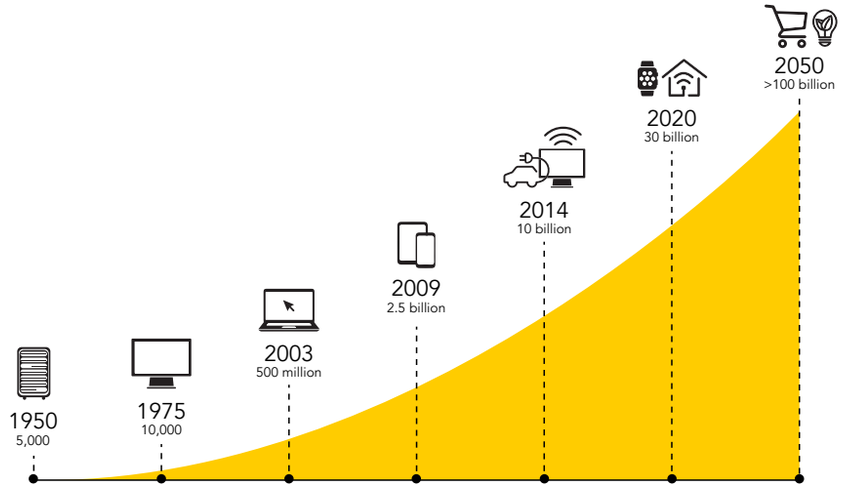
Providing Talent and Expertise for the Digital Age

The planned **Center for Convergence and Innovation** will provide a place to co-locate our existing business, data science, and computing programs to spur new degree programs, entrepreneurial projects, outreach to businesses and communities, increased industry and government funding for research, and the development of a highly agile workforce prepared to implement digital transformation solutions throughout Michigan. Students and employees from the College of Business and College of Computing will be commingled to promote cross-disciplinary collaboration, innovation, and entrepreneurship.

According to many experts, including Klaus Schwab, founder of the World Economic Forum, the transition from the Third to the Fourth Industrial Revolution is being marked by integration of digital technologies into all aspects of physical and biological systems. Companies will no longer compete on product innovation alone; they will compete on innovations of their fundamental business processes.

Michigan Tech is preparing students to be leaders in tomorrow's world.

To remain competitive in an increasingly fast-paced world in which technological innovations proceed at extraordinary speeds, businesses, industries, and governmental agencies must be nimble, agile, and sufficiently aware of recent and upcoming developments to be able to maintain financial viability—as well as social currency. One thing we can be sure of is that the future will bring rapid and continual change. Michigan Tech is preparing students to be leaders in tomorrow's world, and our computing- and business-related research is critical to US economic competitiveness and the sustained growth of local economies.



Expected adoption of IoT (Internet of Things) devices.
Source: Modified from Capra M, Peloso R, Masera G, Ruo Roch M, Martina M. Edge Computing: A Survey On the Hardware Requirements in the Internet of Things World. *Future Internet*. 2019; 11(4):100. https://doi.org/10.3390/fi11040100

Partnerships and Collaborations Across Michigan

Addressing Local, Regional, and State Needs

Michigan Tech faculty who will be located in the Center for Convergence and Innovation have a strong history of building educational programs and partnerships across Michigan. Through its focus on convergence and economic development, the proposed facility will allow Michigan Tech to better prepare for the high-tech workforce needed to keep Michigan competitive. Moreover, the facility will allow us to strengthen our already-deep community ties.

College of Business (COB) faculty completed an economic impact analysis of the Eagle Mine in the Upper Peninsula of Michigan. Lundin Mining, the operator of the only primary nickel mine in the US, sought out the unique combination of COB faculty expertise in economics, mining, econometrics, data analytics, and information systems to establish best practices in mining in relation to regional economic health. Current and ongoing economic research by COB faculty includes regional transportation, Michigan fruit and brewing industries, recreational fishing, regional economic impacts of dredging the Menominee River harbor, and the economic impact of Michigan Tech's overall research expenditures.

COB faculty have and continue to actively partner with the Michigan Small Business Development Center, the Michigan Tech SmartZone, the Michigan Economic Development Corporation - STEM Forward, and the FinnZone to address Michigan's economic needs by providing expertise, mentorship, and collaborative support for new and established businesses.

The College of Computing (CC) is similarly focused on advancing Michigan. Multiple computing faculty members are partnering with industry and government organizations alike on research problems that will directly advance Michigan's competitiveness, including improving health outcomes, disaster resilience, autonomy, and automation. Our partners include hospital systems, the automotive industry, and everything in between.

CC faculty are also focused on ensuring that all Michiganders have opportunities within computing and tech. One example is Copper Country Coders, an educational program delivered by MTU students with assistance from computer science faculty. Copper Country Coders introduces students in middle and high school to the world of computer science and programming. Similarly, we are currently partnering with the Detroit Hispanic Development Corporation (DHDC) to deliver our first programming course to students from inner city Detroit. Partnering with DHDC and Ford Motor Company, we last year synchronously delivered the curriculum remotely to these high school students, with close mentorship provided in person at DHDC.

The COB also provides experiential education to high school students by bringing real-world investment concepts into schools and classrooms through the **Husky Investment Tournament** for high schools.

How the Husky Investment Tournament Works:

3 or 4

students per term from grades 9-12

$1M

in virtual US dollars to invest

$1,000

to the winning team–with Michigan Tech scholarship offers

Partnerships and Collaborations Across Michigan

Addressing Local, Regional, and State Needs

As Michigan's first and only academic college focused on computing, the College of Computing at Michigan Tech is critically important to the state's continued economic vitality. We provide a high-value, hands-on education that prepares our alumni to lead in multiple areas related to digital transformation, including cybersecurity. Experiential initiatives are a critical component, including these current initiatives led by faculty member **Yu Cai:**

RedTeam is a community and resource for students wishing to learn more about information security. RedTeam students interested in cybersecurity competitions compete in the National Cyber League, which can be thought of as the cybersecurity collegiate national championships. Michigan Tech regularly places in the top 10 overall, including third out of 922 teams in spring 2021.

GenCyber provides summer cybersecurity camp experiences for students and teachers at the K-12 level. The program helps students understand safe online behavior and fundamental cybersecurity concepts and increases their interest in cybersecurity careers, and improves teachers' pedagogical methods for delivering cybersecurity content.

CyberCorps is a national program designed to recruit and train the next generation of information technology professionals, industrial control system security experts, and security managers to meet the needs of the cybersecurity mission for federal, state, local, and tribal governments. The program provides two- to three-year scholarships for cybersecurity undergraduate and graduate education.

Prominent Faculty

This document cannot be sufficiently long or detailed enough to adequately describe the work of all the faculty and students who will benefit from the Center for Convergence and Innovation. Instead, we focus on the work of a select group of Michigan Tech faculty who are leading researchers and educators.

Professor of Accounting Information Systems **Jun Dai** studies the application of new technologies to the auditing profession. Dai is also working on the application of blockchain and artificial intelligence (AI) to facilitate environmental, social, and governance (ESG) corporate reporting. Dai represents a large number of business faculty who are digitally transforming the business practices of tomorrow.

Dai's forward-looking approach has resulted in enormous positive attention from her peers. Dai received the 2021 American Accounting Association's Notable Contributions to Accounting Literature Award for her article "Toward Blockchain-Based Accounting and Assurance." In this article, Dai explores how blockchain technology will reengineer the existing accounting and auditing procedures to make them more transparent, intelligent, and automated.

Extensions of her work to supply chains, quality control, and finance are readily apparent. Her research has implications for all sectors of Michigan's economy.

Meet JUN DAI, Richard and Joyce Ten Haken Faculty Fellow in Accounting/Finance in the College of Business.

Prominent Faculty

Timothy Havens is the William and Gloria Jackson Endowed Professor of Computer Systems. He also serves as the associate dean for research in the College of Computing and as the director of Michigan Tech's Institute of Computing and Cybersystems (ICC), which provides a platform for innovative research through support, facilitation, and collaboration within and outside of Michigan Tech.

Both centers are growing fast under Havens' leadership. In fact, the ICC has set records for research awards for three consecutive years. Taken together, the Great Lakes Research Center (GLRC) and ICC collectively account for over $10 million in research activity. The ICC's 55 members—in six research centers—represent more than 20 academic disciplines at Michigan Tech. Member scientists are collaborating to conduct impactful research, make valuable contributions in the field of computing, and solve problems of critical national importance. The GLRC includes biologists, geologists, engineers, chemists, remote-sensing specialists, and computer scientists working together on important freshwater research and sustainability projects.

Havens' research and teaching interests focus on pattern recognition and machine learning, signal and image processing, sensor and data fusion, heterogeneous data mining, and explosive hazard detection. Havens, his collaborators, and his students are creating the tools that will make Michigan's industries successful throughout the 21st century.

Meet TIMOTHY HAVENS, William and Gloria Jackson Endowed Professor of Computer Systems in the College of Computing.

Prominent Faculty

Daniel Fuhrmann is the Dave House Endowed Professor of Computing. He also serves as the chair of the Department of Applied Computing.

In 2017-18, Fuhrmann led the University-wide Computing and Information Sciences Working Group that ultimately recommended the formation of a new academic unit devoted to computing.

Following that effort, as part of the University's Tech Forward initiative, Fuhrmann led the Data Revolution and Sensing Task Force, which in spring 2019 developed a vision and implementation plan for the new College of Computing.

Michigan Tech's newest college enrolled its first students in fall 2019 and boasts eight undergraduate degree programs ranging from cybersecurity to mechatronics.

Fuhrmann's expertise is in statistical signal and image processing, with applications in radar systems, sonar systems, medical imaging, and communications. Fuhrmann is a fellow of the Institute of Electrical and Electronics Engineers (IEEE).

Meet **DANIEL FUHRMANN,** Dave House Professor of Computing in the College of Computing.

Prominent Faculty

Manish Srivastava is the David L. and Marilyn A. Bernard Faculty Fellow in the College of Business. He also serves as a professor of strategic management and innovation. Srivastava's research and teaching interests focus on technological innovation, strategic alliances, and evolution of knowledge structure of firms. He is a world-renowned expert on firm alliances to leverage technological resources for breakthrough innovations. His research has won awards at the Strategic Management Society, Academy of Management, and Pan-IIM World Management Conference.

His teaching focuses on helping students acquire knowledge and skills in developing technology and innovation strategies, international entry and growth strategies for small- and medium-sized enterprises, and business models for commercializing advanced technologies. He led efforts to establish the entrepreneurship, innovation, and technology minor offered by the College of Business. He has been invited by several world-renowned universities, such as Umea University, Virginia Tech, Washington State University, and the Indian Institute of Management Lucknow, to conduct workshops for their faculty and doctoral students on econometric methods.

Srivastava currently serves on the editorial review boards of the *Journal of Management* and *Long Range Planning* and as a guest editor for *Long Range Planning*.

Meet **MANISH SRIVASTAVA,** David L. and Marilyn A. Bernard Faculty Fellow in the College of Business.

Prominent Faculty

Keith Vertanen is the Dave House Associate Professor of Computing specializing in designing intelligent interactive systems that leverage uncertain input technologies. His areas of expertise include human-computer interaction (HCI), accessible computing, speech and language processing, mobile interfaces, and crowdsourcing. His extensive research focuses on systems that enhance the capabilities of users with diverse abilities.

Vertanen is a member of the Center for Human-Centered Computing (HCC). The HCC's research focuses on designing, building, and evaluating computational technologies as they relate to people's capabilities, limitations, and environments. By reflecting on how technologies affect society, the HCC prepares Michigan Tech students to become future creators with balanced viewpoints by educating their computing side, their human side, and their interactions.

Meet **KEITH VERTANEN,** Dave House Associate Professor of Computing in the College of Computing.

Funding for Research

Investing in Michigan Tech Faculty and Students

University-supported (aka internal) research funding is a critical stepping stone that provides the seed funding needed by new researchers who must establish themselves as competitors for external research funding. In 1986, Michigan Tech made a strategic move to establish a peer-reviewed Research Excellence Fund (REF) grant program. These funds are available through the following Michigan Tech REF Programs:

REF Seed Grants provide resources to untenured faculty to allow them to collect preliminary data or conduct pilot studies to support a larger externally funded research project. Seed grants primarily support faculty in STEM fields such as those in the College of Computing.

REF Scholarship and Creativity Grants provide faculty of all ranks in non-STEM fields with funds to support their scholarship and creative activities. Faculty in the College of Business may access this funding program.

Shared Facility Grants provide critical resources for University-wide interdisciplinary and guest/partner research activities. Funds are used to ensure researchers have access to shared research spaces and state-of-the-art equipment. Michigan Tech's shared facilities are an invaluable asset, and include the University's High Performance Computing Center.

Instructional Programming

Digital Transformation Education Critical to Industry

Preparing Talent That Matters for Michigan's Economy

Historically, Michigan has been a high-income but low-education state, where the job market was largely dependent on durable goods manufacturing. Today, resources such as talent, innovation, and technological advancement are key factors in the economic development, vitality, and competitiveness of the State of Michigan. A Business Leaders for Michigan report from April 2016 stated:

> "The goal of helping Michigan become a **'Top Ten'** state will be impacted by Michigan's ability to supply talent with the right education, training, and skills to fill high-paying, high-demand jobs."

This perspective is shared by others. For example, in December 2015, the Michigan Postsecondary Credential Attainment Workgroup, a coalition of business, education, and political leaders in our state, published an action plan to increase the qualifications of Michigan's workforce.

The work of that group laid the groundwork for Governor Gretchen Whitmer's call for 60 percent of Michigan residents to earn a postsecondary certificate or degree by the year 2030, a goal which is now referred to as "Sixty by 30."

In June 2021, an update was provided by this workgroup noting that 70 percent of jobs will require a postsecondary credential by 2030. Michigan's employers continue to see talent shortages in middle- and high-skilled positions, and the talent base is undersupplied in disciplines like architecture/ engineering, computer science, and healthcare. "Michigan needs 12,000 people with computer engineering skills by 2030 to continue to be a leader in the mobility space."

Digital Transformation Education Critical to Industry

Preparing Talent That Matters for Michigan's Economy

> "As predicted by the 2007 Rising Above the Gathering Storm report (published by the National Academy of Science, National Academy of Engineering, and Institute of Medicine), the link between education and economic well-being has gone from being a suspicious notion, to being a well-documented fact."

By 2008, the storm had not just gathered, it had hit with full force. Michigan, with its low training and education attainment rates, was ill-prepared to deal with storm-force economic winds. The shortage of trained and educated workers dragged down the economy and launched a war for talent among companies that continues today. Whereas at one time businesses chased low wages across state borders and around the world, they were increasingly forced to chase talented employees—which were, as predicted, in short supply—particularly in Michigan. This was in large part due to the fact that Michigan residents were not sufficiently prepared to be part of the high-tech workforce.

The COVID-19 pandemic disproportionately impacted unskilled workers in Michigan. As the disruption hit Michigan, the unemployment rate rose from 4.3 percent to 24 percent between March and April. In August 2020, it remained at 8.7 percent, approximately twice the pre-COVID rate, according to the US Bureau of Labor Statistics.

In her 2021 Mackinac Policy Conference Keynote Address, Governor Whitmer reaffirmed Michigan's commitment to growing the middle class, supporting small businesses, and investing in communities. Both the Gathering Storm report and our state's leaders are clear that individuals with at least some college education are going to be more employable in Michigan's increasingly high-tech economy.

Digital Transformation Education Critical to Industry

Center for Convergence and Innovation Embodies Michigan Tech's Vision for the Future

Michigan Tech's reputation and track record are built on 135 years of vision, hard work, and commitment to the local community, the state, and the nation. To maintain our high-achieving status among STEM-dominant research institutions, Michigan Tech constantly pursues strategic initiatives designed to respond to changing state/national/global needs while staying true to who we are as a University. Strategic efforts are developed through collaborative University-wide conversations, such as Tech Forward, which frequently include external stakeholders. Germane to our Five-Year Capital Outlay Plan are several programmatic, hiring, and partnership initiatives that emerged from the Tech Forward campuswide strategic visioning process during the 2018-19 academic year. The Center for Convergence and Innovation will be the center of the MTU digital world and will be a key link in driving the Tech Forward intiatives forward.

Tech Forward Process and Strategic Vision Priorities

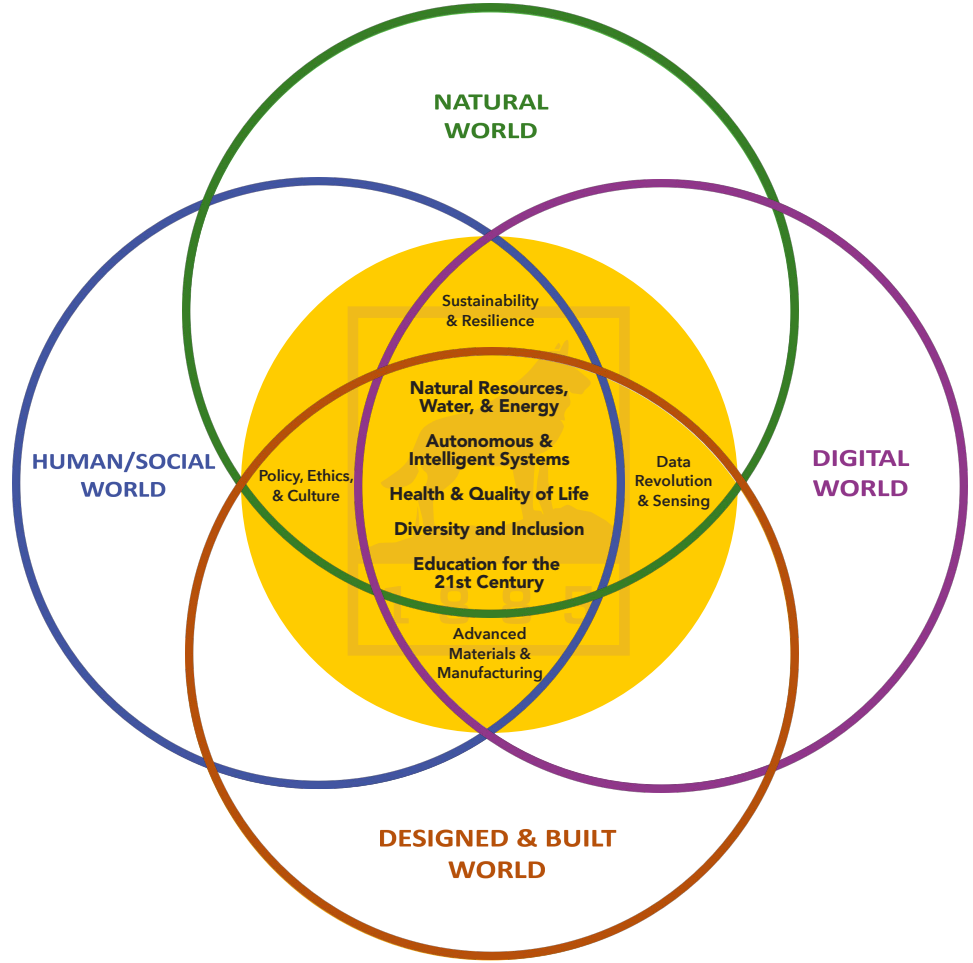
DEVELOP
solutions to natural resource, water, and energy problems

BUILD
innovative autonomous and intelligent systems

CREATE
technological solutions to enhance human health and quality of life

PREPARE
culturally receptive leaders for a diverse world

REDEFINE
education for the next generation



Digital Transformation Education Critical to Industry

Redefining Education for the Next Generation

The Brookings Institute ranked Michigan Tech No. 1 in Michigan, and No. 4 in the US, in value-added factors such as the kinds of majors offered—particularly in STEM subjects—graduation rates, student loan repayment rates, and the difference between predicted earnings and graduates' actual earnings at mid-career and over a lifetime.

Enhancing diversity and inclusion for all at Michigan Tech was one of the nine initiatives that emerged from the Tech Forward process. As part of that initiative, the University established an Office of Diversity and Inclusion, and hired the first vice president for diversity and inclusion, Wayne Gersie, in the fall of 2020. Following Gersie's recent departure, the office is currently overseen by Michael Blanco and has grown to include staff members who are supported on external grant funds as well as staff supported on the general fund. The office has overseen the development of diversity strategic plans for academic and non-academic units at Michigan Tech, and facilitated the establishment of academic partnerships with minority serving institutions. It also provides leadership and collaboration in the development of grant proposals for funding that supports enhancing DEIS at Michigan Tech. Examples of recent results of these efforts at Michigan Tech include the establishment of a funded McNair Scholars program, and a recently awarded a $2.5 million grant by the National Science Foundation to support the project Scholarships for Success: Husky Pathways for Academic Wellness and Success under the leadership of Adrienne Minerick, professor of chemical engineering.

The Office of Diversity and Inclusion works closely with academic leaders across campus to help ensure that changes to the existing instructional programming, such as adding new programs or eliminating underutilized programs, are driven by student demand and industry needs. The growing interest among students in majors in transdisciplinary or convergent fields, particularly at the graduate level, is the basis for Michigan Tech's Five-Year Capital Outlay Program. The priority project, the Center for Convergence and Innovation, will address the needs associated with growth in student interest in preparing for leadership roles related to Industry 4.0.

Digital Transformation Education Critical to Industry

Redefining Education for the Next Generation

Students across campus benefit from the guidance and mentoring provided by outstanding faculty who are committed to students' success.

Sonia Goltz, professor of organizational behavior in the College of Business, is the inaugural Mickus Endowed Faculty Fellow in Business Impact. Goltz is Michigan Tech's 2021 Diversity Award winner. Her research focuses on gender equity issues and related topics—such as social power and equity. She is one of the core members of Michigan Tech's ADVANCE team, which leads a multifaced initiative funded by the National Science Foundation. Goltz is known for bringing innovation to the classroom through the use of new and emerging teaching methods and tools.

Linda Ott, professor of computer science, received Michigan Tech's inaugural Diversity Award in 2014. She was a founding organizer of the Michigan Celebration of Women in Computing and of the National Center for Women & Information Technology (NCWIT) Aspirations in Computing Michigan Affiliate Award for high school women. Ott led project teams for Michigan Tech's NCWIT Pacesetters and the NCWIT Extension Services for Undergraduate Programs. She received a NCWIT Extension Service Transformation Award Honorable Mention in 2020 for excellence in recruiting and retaining women in computing-related fields.

Digital Transformation Education Critical to Industry

Delivering Sustainable 21st Century Education

Michigan Tech plans to explore the possibility of mass timber as a main construction material for the Center for Convergence and Innovation. Mass timber consists of lumber glued together to form large structural elements. Michigan's forests are nearly 70 percent hardwoods, and mass timber construction provides a market for this important resource. Michigan Tech is a leader in the development of mass timber made from hardwood species in Michigan.

As the fight against climate change intensifies, mass timber is causing a revolution in the construction sector because growing renewable wood absorbs carbon from the atmosphere—and wood buildings can store carbon for hundreds of years. Wood has the potential to turn the construction sector, currently responsible for nearly 40 percent of the world's greenhouse gases, into a carbon-neutral or -negative sector when combined with other technologies.

Regional investment in mass timber manufacturing will have a dramatic effect on our rural communities. Industry sectors that depend on the forest are the largest job suppliers in rural northern Michigan. As the demand for paper declines, mass timber presents a new market for forest products. Demand for mass timber within the state will ultimately drive investment and employment in Michigan forest products, manufacturing, and engineering.

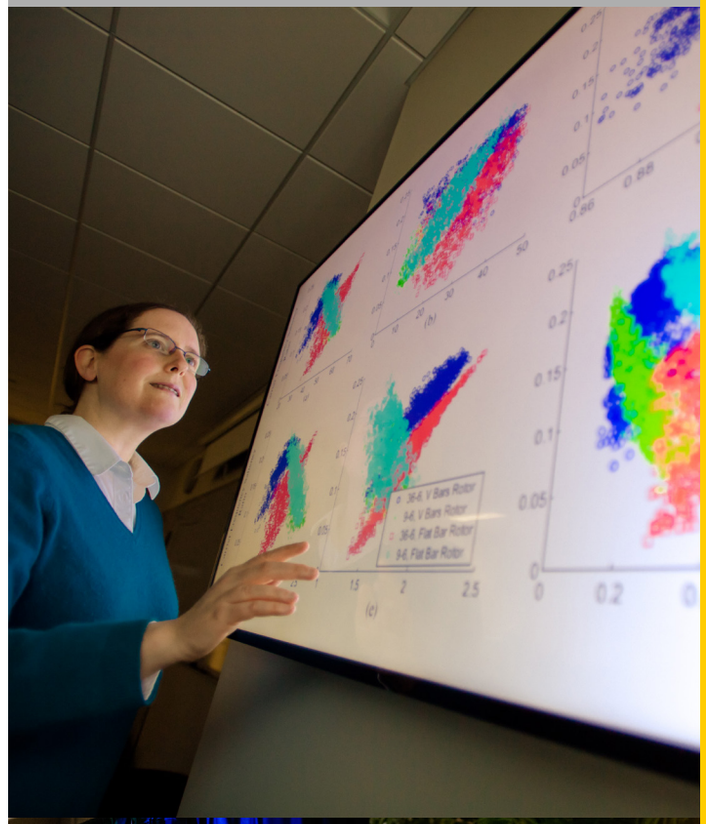
Mass timber is an advanced design and building technology and directly aligns with Michigan Tech's goals for cutting-edge innovation.

Digital Transformation Education Critical to Industry

Delivering Hands-on, Real-world Learning Opportunities

Revolutions in computing, connectivity, sensorization, and business are driving **digital transformation** throughout the economy. Yes, digital transformation is a buzzword—and it's also a new reality for every industry. There are many definitions, but perhaps the best is from the Enterprisers Project, which defines digital transformation as the "integration of digital technology into all areas of a business resulting in fundamental changes to how businesses operate and how they deliver value to customers." However, they caution that cultural change is the most difficult—and most important—ingredient. Success critically depends upon an agile workforce that embraces change (Harvard Business Review, March 2019). Unfortunately, neither universities nor companies are currently doing a very good job of preparing this workforce. The Center for Convergence and Innovation will address this critical unmet need, converging the proximity of our business, data science, and computing programs. Students and departments from the Colleges of Business and College of Computing will be commingled into one digital transformation building—the Center for Convergence and Innovation. **This one-of-a-kind building will be uniquely positioned to create Michigan's workforce of the future.**

Michigan Tech is already leading in this space. Created in 2019, our College of Computing is Michigan Tech's fastest growing unit and it remains the only academic college focused solely on computing and data science in the State of Michigan. And, as the only college of business embedded in a public technological university in the state, our College of Business faculty and curriculum are focused on technology innovations in business and entrepreneurship. Our faculty are primed for this combination. **The Center for Convergence and Innovation will position Michigan Tech even further ahead in preparing the state's workforce.** Our programs and research in data science, fintech, management information systems, and data security will obviously benefit from this proximity. Moreover, proximity and cooperation will promote new and deeper collaborations throughout the two colleges and, most importantly, between our students.



Faculty Research Integrated Into Learning

Critical for Technological Innovation and Economic Development

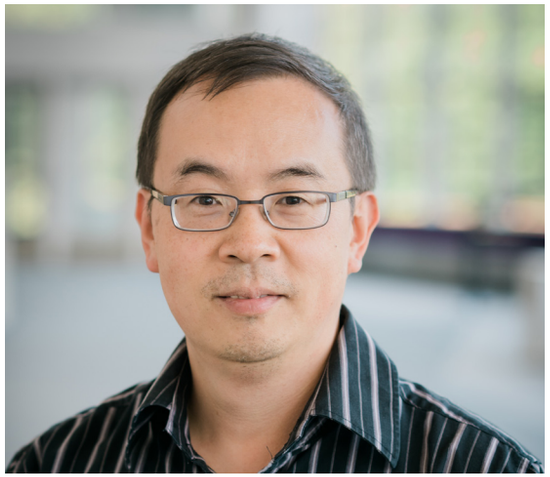
Jeff Wall is an associate professor in the College of Business. His research and teaching interests include artificial intelligence and machine learning for business. He recently held the Richard and Joyce Ten Haken Faculty Fellow position.

Laura Brown is an associate professor in the Department of Computer Science and the current director of Michigan Tech's interdisciplinary graduate program in data science. She is a co-advisor for Women in Computer Science (WICS).

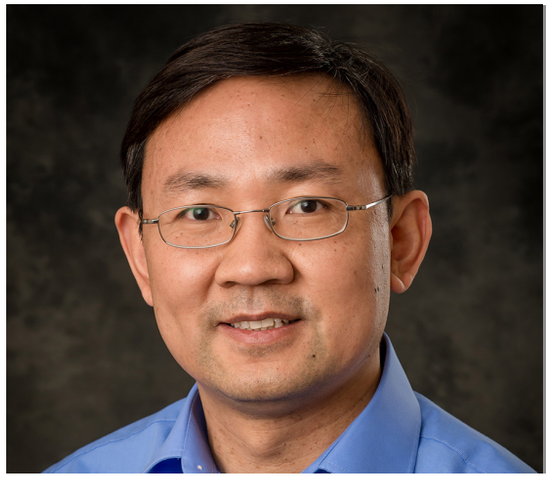
Mari Buche and other researchers are currently working to provide recommendations to improve the gender balance in STEM fields. She also tries to answer the question, "What does it mean to be titled 'systems analyst,' when you were hired as a 'programmer?' And, if you do not make the transition to 'system analyst,' what will you inadvertently do to your career?"

Faculty Research Integrated Into Learning

Critical for Technological Innovation and Economic Development



Yu Cai, a professor in the College of Computing, also coordinates the BS in Computer Network and System Administration and the BS in Cybersecurity degree programs. He is also the director of the Computing Education Center within Michigan Tech's Institute of Computing and Cybersystems.



Zhenlin Wang is the chair of the Department of Computer Science. His research expertise is broadly in the areas of compilers, operating systems, and computer architecture with a focus on memory system optimization and system virtualization. He is a recipient of the National Science Foundation's CAREER Award.

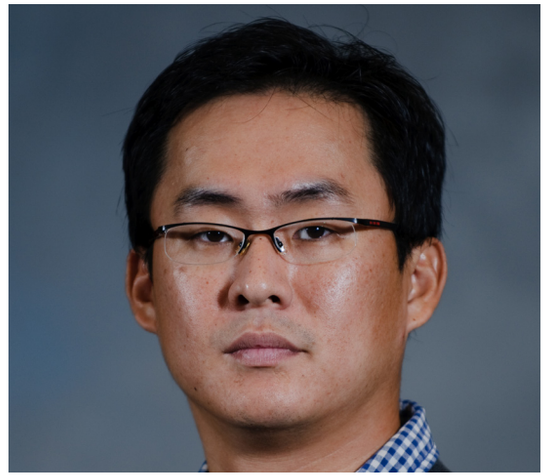
Dennis Livesay leads the College of Computing as the Dave House Endowed Dean of Computing. Throughout his career, he has worked across disciplinary boundaries—spanning biophysics, chemistry, computing, and data science.

Faculty Research Integrated Into Learning

Critical for Technological Innovation and Economic Development

Elham Asgari holds a BS in Electrical Engineering, Master of Business Administration degree, and a PhD in Business Management—a true example of how business and computing converge. An assistant professor of management and entrepreneurship, she also holds the Charles C. and John G. Gates Endowed Professorship in Entrepreneurship and Innovation.

Alex Sergeyev believes "a mechatronics degree is the key to your successful professional future." Sergeyev is a professor of mechatronics, electrical, and robotics engineering technology and director of the FANUC Certified Industrial Robotic Training Center. His research focuses on developing advanced industrial robotics platforms and controls.



Soonkwan Hong believes in utilizing innovative technologies as a key piece in successful teaching methods. And in one of his research areas, he focuses on algorithmic consumer culture. Hong is an associate professor of marketing in the College of Business.

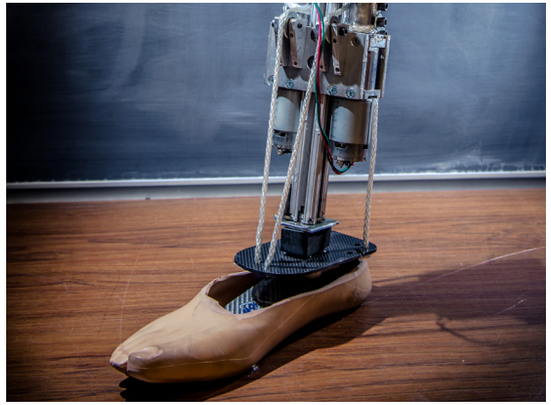
Digital Transformation Education at Michigan Tech

Engineering Management

Only 28 institutions in the US offer this at the bachelor's degree level and Michigan Tech is one of only two in Michigan.

MTU's program (MS and BS) prepares students to meet the growing industry demand for talent that can bridge the STEM/business divide.

Graduates possess firm STEM technical skills accompanied by strong underpinnings in business.



Mechatronics

Mechatronics is the convergence of mechanical and electronic systems, which is becoming ubiquitous in modern life.

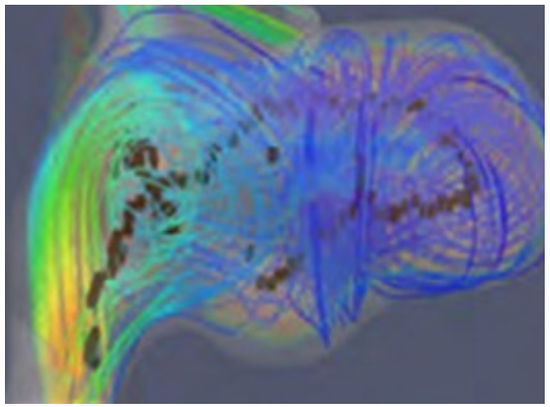
Just as prostheses improve mobility and agility, artificial intelligence is helping industries to become increasingly agile in responding to consumers' needs.

MTU's BS and MS programs in mechatronics are a partnership between the College of Computing and College of Engineering to truly represent the interdisciplinary nature of the field.

Cybersecurity

Michigan Tech's cybersecurity program is one of our fastest-growing programs, and is the only one of its kind in the region. The curriculum combines both theory and applied research across multiple computing disciplines, providing students a unique focus.

Digital Transformation Education at Michigan Tech



Computational Science and Engineering

Michigan Tech's PhD program in computational science and engineering engages faculty and students in interdisciplinary research and teaching, focusing on computational aspects of science and engineering.

Master of Business Administration (MBA)

Ranked by University HQ as the No. 5 Best Michigan MBA School, Michigan Tech's program provides students with both foundational skills and cross-disciplinary studies at a high-quality engineering and technological research university. This AACSB (Association to Advance College Schools of Business) accredited graduate program is designed to provide students with the comprehensive education needed to succeed.

Marketing

The marketing program at Michigan Tech offers a technology-driven and creativity-charged curriculum featuring marketing analytics, brand management, digital media marketing, and much more. It's the only branch of business to prepare innovative professionals through hands-on experiences in integrated marketing communication, new product development, consumer behavior and culture, and sales technology.

Digital Transformation Education at Michigan Tech

Software Engineering

The US Bureau of Labor Statistics expects software development positions to increase 22 percent by 2029. Michigan Tech's software engineering program prepares graduates for a wide variety of development roles, including computer games, business applications, operating systems, and network control systems.

Management Information Systems (MIS)

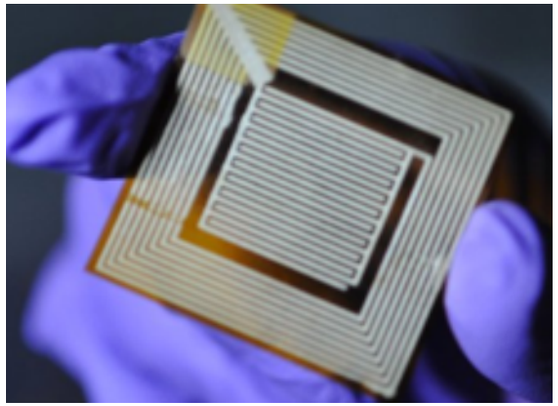
There are not enough students to meet industry need, creating a nationwide demand. Michigan Tech students in this program obtain hands-on experiences and professional education. Courses in programming, usability, network administration, entrepreneurship, graphic and information design, technical and professional communication, finance, and marketing help prepare MIS grads as team players, project managers, and problem solvers.

Health Informatics

Biometric developments, cybersecurity for healthcare industries, intelligent medical devices, and biomedical imaging all require the integration of digital technologies with healthcare.

Michigan Tech's master's program is ranked sixth in the nation among the Top 10 Online HI Programs by BestOnlineSchools.org.

Digital Transformation Education at Michigan Tech



Computer Science

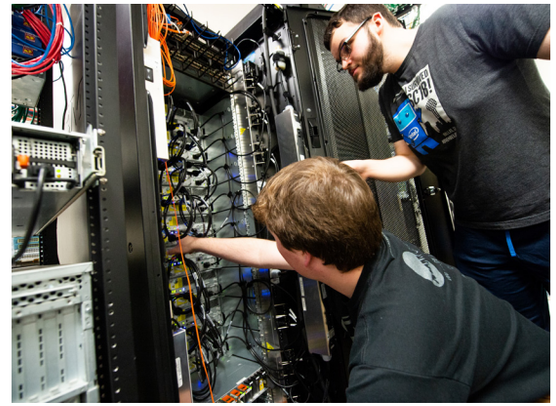
Michigan Tech's computer science program provides four concentrations: computer science, computer systems, applications, and game development.

Computer science prepares students for a career in computing, science, engineering, or graduate school. Computer systems focuses on designing, developing, and maintaining computing systems. Applications centers on problem-solving. Game development prepares students for careers in the game industry and related fields.

Accounting

Students benefit from studying accounting at a leading STEM university through cross-disciplinary applications led by nationally recognized professors. Undergraduates can select data analytics as a concentration.

Certificates in accounting analytics and forensic accounting are also available within the Michigan Tech MS in Accounting program.



Computer Network and System Administration (CNSA)

The Computer Network and System Administration bachelor's degree prepares students for some of today's most challenging and exciting career areas: computer network design, administration, and security. Michigan Tech graduates are in high demand and command excellent starting salaries.

Facility Assessment

Continuous Return on Investment

Continuous Process of Facility Assessment

Michigan Tech's space management is a continuous process maintained through our Accounting for Space, People, Indexes, Research, and Equipment (ASPIRE) database. In 2011, Michigan Tech engaged SHW Group Inc. to prepare a comprehensive Facility Assessment and Deferred Maintenance Capital Planning Report. This report became the basis for the current long-term deferred maintenance funding model and prioritization schema that is used to determine the priority of any project.

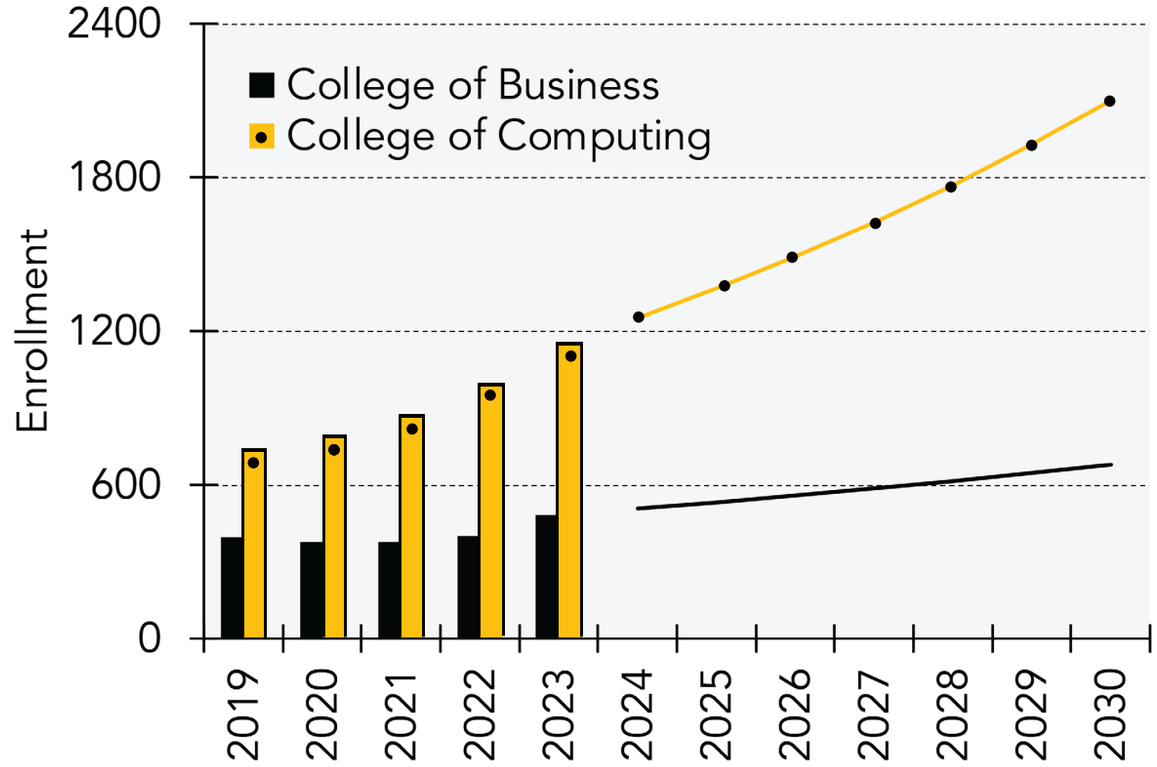
The College of Business currently has 10,911 net assignable square feet (NASF) and the College of Computing has 25,602 NASF. Analysis of projected enrollment increases (p. 47) indicates that the two colleges combined require a total of 130,000 NASF to serve their 2025 projected enrollment and research activity (p. 47).

The status of existing research space also indicates there is need for improvements to these spaces in order to support the current level of research on campus and to maintain our current trajectory of increasing research and external funding. We need to improve our research spaces so that they are no longer classified by the National Science Foundation (NSF) as being in satisfactory condition (defined as facilities suitable for continued use over the next two years for most levels of research, but possibly requiring minor repairs or renovation), and are instead classified as being in superior condition (defined as facilities suitable for the most scientifically competitive research over the next two years).

Continuous Return on Investment

Enrollment Growth in the Colleges of Business and Computing

The Colleges of Business and Computing have the two fastest-growing enrollments at Michigan Tech. Both colleges grew over 15 percent this year, with the College of Business growing by more than a fifth. In fact, the growth in business and computing enrollments is driving Michigan Tech's current growth, accounting for more than 90 percent of the University's increase this year. Portrait 2035 is Michigan Tech's plan to reach 10,000 students by 2035—combined, enrollments in the two colleges currently exceed the model by 26.6 percent. Simply put, however, current space is inadequate to serve the projected increase in student numbers. These two colleges combined require 325,000 square feet to service the projected enrollment and research growth.

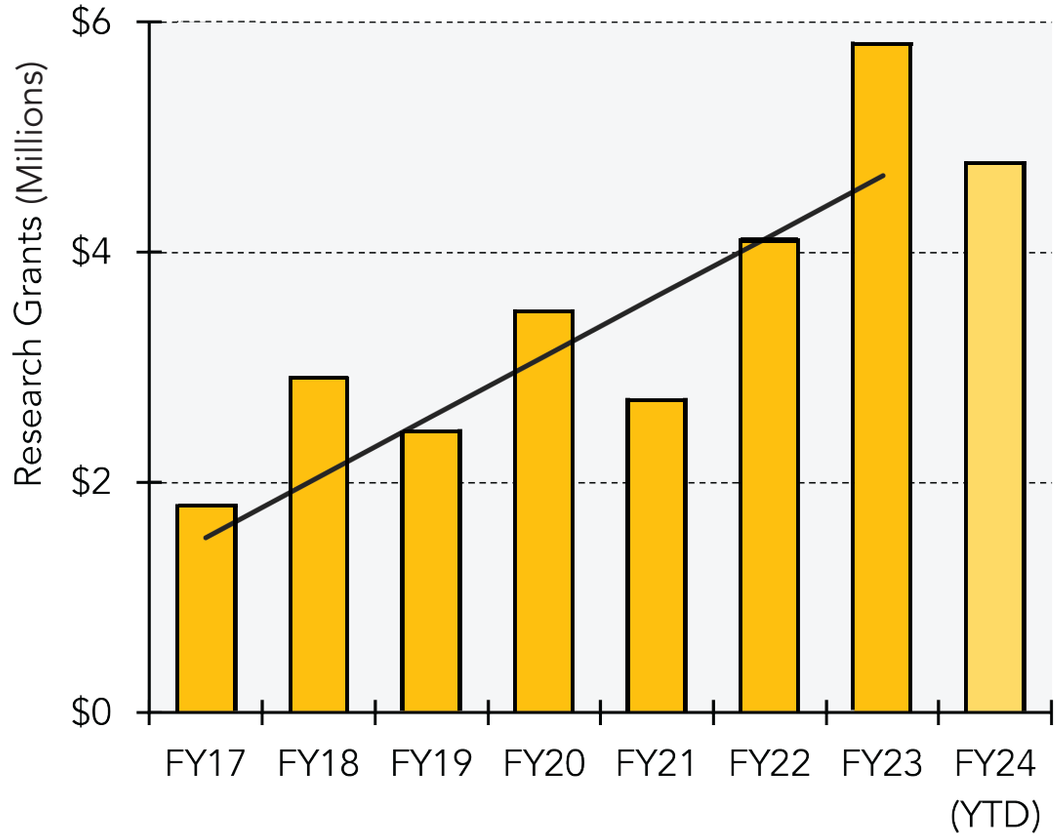


Continuous Return on Investment

Computing and Cybersystems Research Growth

The Institute of Computing and Cybersystems (ICC) is focused on supporting and advancing computing research at Michigan Tech. The ICC includes over 75 different faculty from more than 20 different academic disciplines. Member scientists are collaborating to conduct impactful research, make valuable contributions in the field of computing, and solve problems of critical national importance.

The figure here highlights our strong and consistent research funding growth. Last year was a record year, and represents 222 percent growth since 2017. Similar increases are expected in coming years. In fact, while we are only two months into the current fiscal year, we have already brought in more than 80 percent of last year's record total.



Continuous Return on Investment

Facility Standards for Program Implementation

Michigan Technological University is a State of Michigan constitutional corporation, governed by a Board of Trustees appointed by the governor of the State of Michigan. Although we have a great deal of regulatory autonomy, we endeavor to meet all code and facility standards applicable for the occupancy of our buildings. We are exempt from local building and zoning ordinances and subject only to State of Michigan laws and regulations that are clearly intended to apply to universities. In lieu of local building ordinances and State of Michigan laws and regulations that do not apply at the University, the University chooses to require that new construction adhere to a number of well-established building codes and standards, as listed in our Michigan Technological University Facilities Management Procedure for Codes and Regulatory Agencies Related to Facility Projects.

Regardless of origin or enforcing agency, all of the applicable building codes and standards listed in the document are to be followed. The document guides contractors and others working on University property and provides input on topics such as compliance with the State of Michigan Bureau of Fire Safety rules for schools and/or dormitories. This document does not eliminate the need to also comply with the Michigan Building Code, including its barrier-free provisions.

The 2010 Americans with Disabilities Act also must be followed. Additional codes may apply for particular situations, which are considered on a case-to-case basis. Adherence to narrow-scope codes and/or standards is required by the general codes listed in the document.

The edition of building codes listed in the document will be followed throughout the project, unless construction documents are submitted to the University for final review more than a year after adoption of a new version of code. If more than one year transpires between adoption of the new code and submission of construction documents to the University for final review, the most recently adopted edition of the building codes applies.

Continuous Return on Investment

Functionality of Existing Structures and Space Allocation to Program Areas Served

Academic spaces at Michigan Tech were generally designed and constructed to serve programming that existed in the past. Many spaces are dated and no longer satisfy current demands. For example, we have a number of areas that were originally designed and constructed as undergraduate labs that now must also meet the demands of graduate education and research.

Additionally, many programs need expanded and updated spaces to allow for modern pedagogy that includes projects, teaming, and collaborative research.

Michigan Tech's research and enrollment have both steadily increased, putting significant strain on outdated facilities and limited spaces. Our FY2021 Capital Outlay Request addressed the highest-priority needs at that time. With the H-STEM Engineering and Health Technologies Complex—Phase I in active construction to address these needs, our focus moves to the College of Business and College of Computing, which require our attention in order to meet the needs of anticipated enrollment growth within those areas.

The Campus Master Plan continues to direct how resources are prioritized. For the fall semester, two undergraduate teaching labs were renovated along with six classrooms to create a modern and productive learning environment. The University will continue to invest in teaching labs and classrooms over the next decade.

Continuous Return on Investment

Priority Need: Business

Top 50

student-run investment funds with over $2 million in assets

1st

Applied Portfolio Management students have placed first in global investment competitions eight times including in 2022

The College of Business occupies two floors of the Academic Office Building (AOB). The AOB opened its doors in 1909, serving as the main administration, mineral museum, and library building until the mid-1960s. After the new library and the new administration building were built, the AOB became home to the College of Business in 1970. The AOB is not ADA-compliant and it would be extremely cost prohibitive to bring it up to code. An antique freight elevator is the only means of accessible transportation to portions of the building, while many other areas in the building—including the dean's office, the academic advising office, and the main conference room—are completely inaccessible.

Currently, the College utilizes less than 11,000 square feet of space. Given the building's original purpose, even after remodeling, the layout is insufficient in many ways. The building lacks University classrooms and has only 220 square feet of open lab space for undergraduate students (i.e., less than one square foot of space per student). Faculty must teach in other buildings, and collaboration between students and faculty is often difficult when office space is not located near teaching spaces. The current space certainly will not meet the needs of the digital transformation education of the future.

Michigan Tech hosts the only college of business embedded in a public technological university in the State of Michigan, requiring that the College of Business faculty and curriculum focus on technology innovations in business, computing, engineering, and entrepreneurship. Michigan Tech's business faculty are primed for the cross-college collaboration necessary for preparing the workforce needed throughout the 21st century. Physical infrastructure has significant impact on enrollment, recruitment, and entrepreneurial partnerships. One example linking a physical infrastructure to tangible outcomes is the Applied Portfolio Management Program. Through a generous donor, the College of Business renovated space for a finance trading room. This physical investment in the finance area has produced stellar results.

The Center for Convergence and Innovation would provide advanced technology classrooms to allow for mixed-modality teaching and open physical spaces that will intentionally promote collisions between faculty and students from across both the College of Business and the College of Computing. Breakout rooms, reconfigurable spaces, and theme-based shared digital lab facilities will be spread throughout.

1,250

high school students who participated in the Husky Investment Tournament since fall 2019

Continuous Return on Investment

Priority Need: Computing

Kanwal and Ann Rekhi Hall was built in 2005 and currently houses most of the College of Computing, including all of the Department of Computer Science. In terms of number of majors, computer science is the second-largest academic degree and third-largest department at Michigan Tech. The building is currently functional and well-utilized, especially its three computer classrooms and Computing Learning Center. However, the facilities do not support pair-programming, which is the current industry standard. Moreover, at only 37,600 gross square feet, the facility is too small for current computing enrollments, and definitely cannot support additional growth or new specialties (i.e., a secure Internet of Things teaching and research environment).

Teaching labs for programs in the Department of Applied Computing are housed in the Electrical Energy Resources Center (EERC). Lab spaces for electrical engineering technology and mechatronics have been recently updated, including the creation of our Mechatronics Playground. Shared with the Department of Manufacturing and Mechanical Engineering Technology, the Playground is a point of pride and provides hands-on opportunities for our students to learn about modern industrial automation tools.

However, the computer lab and server room in the EERC that support the computer network and system administration degree–both of which are regularly utilized by students–are in need of updating. In particular, the server room is obsolete, poorly cooled, and undersized. The teaching lab is similarly outdated and does not support collaborative learning and related teaching innovations.

A lack of physical space for faculty and student research is another critical challenge. Most dedicated computing research labs are in Rekhi Hall, but with only 155 square feet per faculty across both buildings, a lack of physical space is severely limiting growth. Moreover, the server room in Rekhi Hall that supports our research in high-performance computing remains at less than half capacity due to fundamental design problems and HVAC failures.

3

streak of years with over 10 percent growth in computing enrollment

15.5%

growth in computing programs last year

1,600

computing enrollment goal for 2030

Continuous Return on Investment

Priority Need: Digital Transformation Partnerships

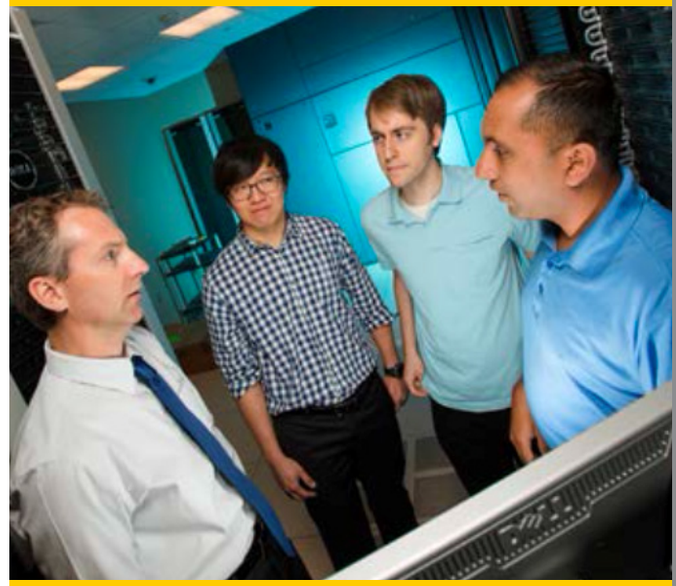
Computing research at Michigan Tech inextricably links the College of Computing and the Institute of Computing and Cybersystems (ICC). The ICC promotes collaborative, cross-disciplinary research and learning experiences for the benefit of MTU and society at large. Nearly all faculty from the College of Computing belong to the ICC, but it also hosts more than 30 faculty from outside the College, making it one of the most far-reaching research units on campus. The ICC is additionally unique in that it is composed of six subcenters, each with a specific focus: computing education, cyber-physical systems, cybersecurity, data sciences, human-centered computing, and scalable architectures and systems. This year, both the College of Computing and ICC set records for external research expenditures.

The ICC has no physical home, which is hampering additional growth. The College is currently trying to leverage what research space it has to advance both computing research and the ICC, but the College does not even have enough space to appropriately support its current research faculty. Phase II of the Center for Convergence and Innovation will create a physical home for the ICC to advance collaborative digital transformation research even further, especially in terms of business analytics, management information systems, and fintech research.

In order to better support Michigan business, the future vision for the Center for Convergence and Innovation provides spaces to co-locate industry partners in the same building as our academic programs. Michigan Tech will create a unique and vibrant environment where students work hand-in-hand with faculty and corporate business leaders to both create and implement innovative digital transformation efforts. In this way, students will receive advanced workforce training before graduation and develop stronger connections to and affinity for our Michigan-based business partners, giving them a leg up in the high-tech workforce race. MTU takes pride in our applied and experiential learning model, and this will take us to the next level.

$5M

five-year research expenditures target



$4.1M

ICC research awards in FY22

$3.2M

ICC research awards in the first two months of FY23

Continuous Return on Investment

Priority Need: Digital Transformation Partnerships

The Center for Convergence and Innovation (CCI) cements Michigan Tech's leadership in the Fourth Industrial Revolution by integrating our computer and business programs to better prepare the modern workforce that Michigan-based industries desperately need to stay competitive, including software engineering, computer science, cybersecurity, data science and business analytics, fintech, health informatics, and tech-based entrepreneurship.

Eventually contributing to the academic preparation of over one-third of Michigan Tech's students, the University intends to fund this 110,000-square-foot facility project above the required match at a level equal to 66 percent of the total $87,000,000 project.

Continuous Return on Investment

Priority Need: Chemistry and Chemical Engineering

The Chemical Sciences and Engineering Building, built in 1968, is largely in its original state. The majority of the classrooms, laboratories, research areas, and administrative spaces remain as they have been since original construction, with the exception of some renovations that have taken place over the years. As second and third generations of students come to Michigan Tech, the space remains largely as it was when their parents and grandparents attended.

Recently five undergraduate laboratories and six classrooms were remodeled to contemporary standards, serving as a model for future projects, and a new Chemical Stores addition was recently completed, improving the safe handling of chemicals. An outdated cooling tower was replaced in FY2017, finishes have been updated in various locations throughout the building, and the roof was recently replaced. Nevertheless, a significant number of additional issues remain to be addressed.

The H-STEM Complex—Phase I project involves limited repurposing of this building, providing the opportunity to utilize its well-maintained shell. The new addition's capabilities will strengthen the University as a whole. To build on the new H-STEM Complex's contemporary standards, the University has committed $9 million toward the replacement and upgrade of the existing building's HVAC system.

90%

students participating in co-ops, internships, or Enterprise

8th

rank of chemical engineering among highest-paying careers

3

semesters of student experience in a simulated chemical plant

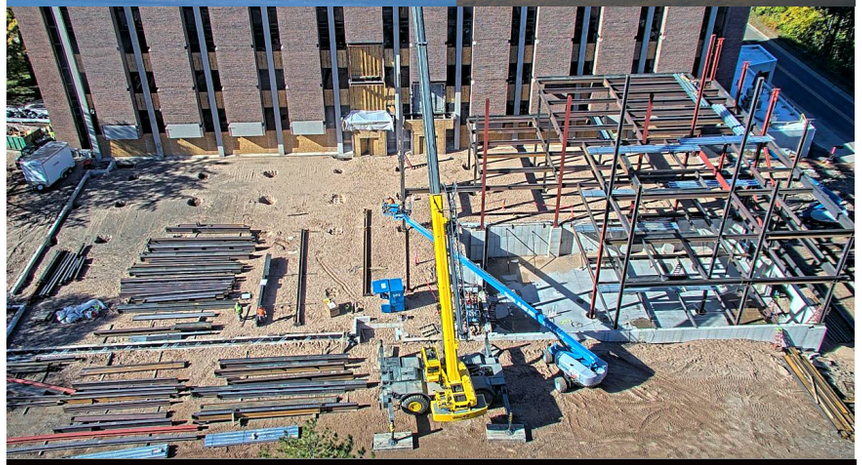
Continuous Return on Investment

Michigan Tech's Previous Capital Project: A Model for Success

The University's last capital outlay project, the Great Lakes Research Center (GLRC, pictured upper right and upper left), provided much-needed space for water-related research on campus. The GLRC provides state-of-the-art laboratories to support research on a broad array of topics. Faculty members from many departments collaborate on research, ranging from air-water interactions to biogeochemistry to food web relationships.

The GLRC has seen continued growth in the number of proposals submitted by multidisciplinary teams and proposals with co-principal investigators, demonstrating growth in individuals interested in contributing toward team science. In the last five years, the GLRC has increased awarded projects by 108 percent (from 37 to 77), and gone from $3.3 million to $9.2 million in awarded funds, an increase of 182 percent.

Like the GLRC, the H-STEM Complex—Phase I (pictured bottom), which will be completed this winter, will address growing needs at Michigan Tech. The H-STEM Complex—Phase I project is anticipated to result in significant increases in the total value of proposals for research funding submitted and awards received. This will allow Michigan Tech to continue to increase its contributions in support of the State of Michigan's industries.



Michigan Tech ranks highly in research and development expenditures in Michigan.

Faculty and researchers launch new interdisciplinary endeavors and collaborate with freshwater experts and oceanographers from around the world at the GLRC (upper left and upper right).

The new H-STEM Complex (bottom) will provide state-of-the-art teaching and research labs for health-related STEM studies.

Mandated Facility Standards

Utility System Condition

The Facility Assessment and Deferred Maintenance Capital Planning Report of 2011, prepared by SHW Group Inc., provided additional guidance regarding utilities and infrastructure. A new comprehensive Campus Master Plan led by SmithGroup provides a prioritization framework for the future development of the campus.

Central Energy Plant

Michigan Tech has a central energy plant and steam distribution system serving the University's campus. The plant has a total connected boiler capacity of 250,000 pounds of steam per hour, providing over 100 percent redundancy at current steam demands. The steam distribution system consists of a walk-in tunnel system from the plant to the academic core. Tunnels run the entire length of the campus core and southward to the athletic complex. The distribution system was designed in anticipation of future growth. New facilities in the academic core are anticipated to be within 100-200 feet of a tunnel. The existing steam plant was built in 1950, with additional capacity added in 1957, 1964, and 1970. We are currently in the second year of a four-year burner control upgrade project, which will improve efficiency and reliability of the system. Planned maintenance efforts continue to focus on long-term reliability of the plant. Opportunities exist for improvements in the steam-generating and distribution system to improve efficiency. The central heating plant presently serves 2,730,000 gross square feet of campus facilities with an instantaneous peak load of 90,000 pounds per hour and a one-hour average peak load of 85,000 pounds. The present connected load includes instructional, research, administrative, housing, athletic, and service facilities. Existing plant capacity can reliably provide steam services for an additional 1,000,000 square feet of building space, while ongoing energy conservation and technology improvements further increase the plant's ability to service additional space.

Michigan Tech is a Green Power Partner. We've joined the EPA Green Power Partnership and are using 17,233,829 kilowatt-hours of green power annually.

Mandated Facility Standards

Utility System Condition

Electric and Communications Infrastructure
Michigan Tech's incoming electrical service is on a 69,000-volt American Transmission Co. line that terminates at an Upper Peninsula Power Company substation located next to Michigan Tech's substation. Michigan Tech's 9.0 MW diesel generating plant provides backup power to the entire campus in an emergency or power curtailment. A FY2022 project updated generator control to improve reliability of the system. Power is distributed to each building where transformers reduce the incoming voltage. The electrical/communications distribution system consists of a concrete-encased duct bank that runs the entire length of the academic core and south to the athletic complex with facility connections tapped from the main duct bank. The campus electrical distribution system was replaced in 2003. Electricity is distributed throughout campus via three separate lines. Two lines serve each building, allowing loads to be balanced across all three lines and providing redundant feed to each building.

The system capacity is 11,500 kVA with 100 percent backup capability. Peak demand is 6,800 kVA at approximately a 0.9 power factor. The system will reliably service an additional 2,000,000 square feet. With planned maintenance, the 2003 cable installation is expected to last through 2053.

Michigan Tech's communication system consists of a number of underground conduits that provide adequate space for University communication infrastructure. Both fiber-optic and copper pathways exist. The size and location of these will enable the system to meet future needs. Should additional fiber be needed, these pathways will be suitable. Any new structure built on campus would tie into this system as part of the project scope.

Water
Michigan Tech's water system is a combined fire and domestic looped manifold system, with an eight-inch main around the circumference of the campus. There are no capacity concerns with the water distribution system. Water usage is 30 percent below what it was in the early 2000s as a result of conservation efforts. Michigan Tech's water mains are sized for an annual usage of 375,000,000 gallons and a peak demand of 1,100 gallons per minute. Current usage is approximately 10,972,147 gallons annually. Water is provided by the City of Houghton. In 1996, the City of Houghton completed construction of a new water plant and continues to make distribution improvements that will meet Michigan Tech's needs into the foreseeable future.

Mandated Facility Standards

Utility System Condition

Sewers
Michigan Tech's sewers are separated into storm and sanitary systems. The storm system drains into the Keweenaw Waterway at various locations. Following the 2018 Father's Day Flood, riverine and urban flooding was identified as a critical vulnerability. As recommended in the 2020 MTU Multi-Hazard Mitigation Plan, a campus drainage assessment plan is needed to understand backup and flooding. A 15-inch sanitary main, capable of handling 3,500,000 gallons per day, ties directly into the Portage Lake Water and Sewage Authority's transmission main. The treatment facility is located east of campus. The size of Michigan Tech's sanitary main and the new sewage treatment plant's capacity of 18,000,000 gallons per day provide sufficient capacity for foreseeable future needs. Regular inspection and maintenance of these aging systems will be required in the near future.

Facility Infrastructure Condition
Michigan Tech's roads, sidewalks, and parking lots are in satisfactory condition and are maintained according to a replacement plan and conditional assessment. Recent improvement projects include repairing and replacing sidewalks on the main campus. The University does not presently have a parking deck, nor any bridges, in its road system.

Adequacy of Existing Utilities and Infrastructure Systems for Current and Five-Year Projected Programmatic Needs
The central heating plant can serve an additional 1,000,000 square feet and the electrical system can service an additional 2,000,000 square feet; both are beyond the University's needs for the upcoming five years. A $100,000 investment in the south campus high-voltage line in 2018 further increased system capacity and reliability. The water plant and sewage facilities both provide sufficient capacity for foreseeable long-term needs. Michigan Tech completed two projects in 2019 to separate storm drain piping from sanitary sewer lines, lowering unnecessary flow to the sewage treatment plant and leaving more capacity for future projects. In 2021 and 2022, the control system for the campuswide generators was replaced along with new burner controls on the main boiler. New valves were installed in the water system main piping to help with strategic segregation during future repairs or upgrades.

Mandated Facility Standards

Campus Sustainability Initiatives

Michigan Tech is investing heavily in improving the sustainability and resilience of our built environments. New fiscal year 2024 facilities initiatives under the strategic plan for sustainability and resilience include:

- Follow best-in-class energy design standards for new construction and major renovations, striving for LEED gold performance for the full Building Design and Construction category, with a LEED platinum equivalent for the Energy and Atmosphere category
- Commission a study of our campus energy infrastructure to complement the Campus Master Plan, assessing pathways to long-term decarbonization and replacement of the central heating plant by 2050
- Launch the Evergreen Energy Revolving fund to pursue energy efficiency projects on campus and direct the cost savings to future projects
- Assess our climate vulnerabilities and build best-science climate resilience (adaptation) into our campus Hazard Mitigation Plan revisions for 2025

Our cooperative efforts to advance sustainability and resilience are beginning to pay off. We earned a silver rating from the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment and Recording System (STARS) in the fall of 2020. After a comprehensive gap analysis conducted by students, faculty, and staff, we were awarded a STARS Gold Rating for our most recent submission in 2023.

Wadsworth garden provides students with an opportunity to grow vegetables for use in campus dining halls.

Mandated Facility Standards

University Enterprise-wide Energy Plan, Goals, and Audit Schedule

The University strives to identify and implement energy reduction strategies and projects based on input from the Campus Sustainability Oversight Committee, Green Campus Student Enterprise, Facilities Management, and the campus community. Nominated sustainability projects and strategies are vetted and prioritized using a life cycle cost approach to determine return on investment. Michigan Tech has recently added a director of sustainability and resilience to lead these efforts.

Energy Efficiency Improvements
Potential energy saving projects include: QMode/SkySpark AI-driven continuous recommissioing; HVAC recommissioning; lighting controls; interior and exterior LED lighting upgrades; exhaust air energy recovery; computer server room infrastructure; water saving projects; and combined heat, power, and cooling. The University is in the process of upgrading HVAC control systems in all buildings and adding steam/condensate insulation.

The $941,000 West McNair Hall Bathroom Renovation and Maintenance Repairs project completed in the summer of 2017 reduced water use in the building by over 20 percent, saving $20,000 per year. The GLRC, the newest building on campus, is heated by waste heat recovered from boiler exhaust gas in the central heating plant, reducing the heating cost for the building by over 70 percent. Michigan Tech is one of only three colleges and universities in Michigan recognized by the USEPA Green Power Partnership for use of sustainable electricity. H-STEM Complex—Phase I is designed to achieve LEED Gold certification.

Electricity Cost Management
Through the State of Michigan Energy Choice Law, Michigan Tech has been able to control energy costs by purchasing energy from an Alternative Energy Supplier (AES). This has resulted in savings for the University of over 20 percent as compared to the local utility rate. Fifty percent of the electricity purchased under our contract is from renewable sources. We have recently concluded utility rate case negotiation with UPPCO to limit electrical rates to a 4.5 percent increase.

Land and Capacity for Future Development

Proposed future campus layout from the recently approved Campus Master Plan.

The University owns real property in the Michigan counties of Houghton, Keweenaw, Baraga, and Ontonagon, and in the Wisconsin county of Lincoln. Each year the Michigan Tech Board of Trustees Audit and Finance Committee reviews an updated list of real properties that could be considered for disposition and advises on strategy. Land acquisitions through donations are vetted to identify their academic, research, or business purpose and are liquidated if no future use can be determined.

In the spring of 2021, the University commenced upon an 18-month campus master planning process titled "Building the Future," which involved three sequential phases—Understand, Explore, and Realize. The University worked with SmithGroup, a nationally recognized architectural firm.

This rigorous process engaged vast numbers of campus and community constituents and identified pressing campus and urban issues, analyzed facility assets, and conducted campuswide qualitative and quantitative analyses. The plan built upon historical analyses, including the "Fresh Look" Scenarios Plan Report of 2006 as well as the Campus Master Plan 1999 Amendment. The Campus Master Plan includes supplements containing information on utilization, identifying footprints for potential academic, research, housing, and recreation building sites. Analyses include potential land acquisition in areas local to the core campus.

The new Campus Master Plan identifies research, academic, and student life priorities for growth over the next 15-20 years and was approved by the Board of Trustees on October 7, 2022. Construction on a new 500-bed residence hall began in fall 2023 with completion set for fall semester 2025. A new parking lot is being constructed in an undeveloped area south of the main campus with completion in the spring of 2024 to accommodate increased commuter students. A new water and sewer connection was extended farther south to provide a connection to the Tech Trails buildings along with providing additional capacity for further growth.

State Building Authority Obligations

Existing Obligations to the State Building Authority

Michigan Tech has two building projects with obligations to the State Building Authority.

Building	Lease Began	Lease Ends
Center for Integrated Learning and Information Technology	2005	2040
Great Lakes Research Center	2013	2048

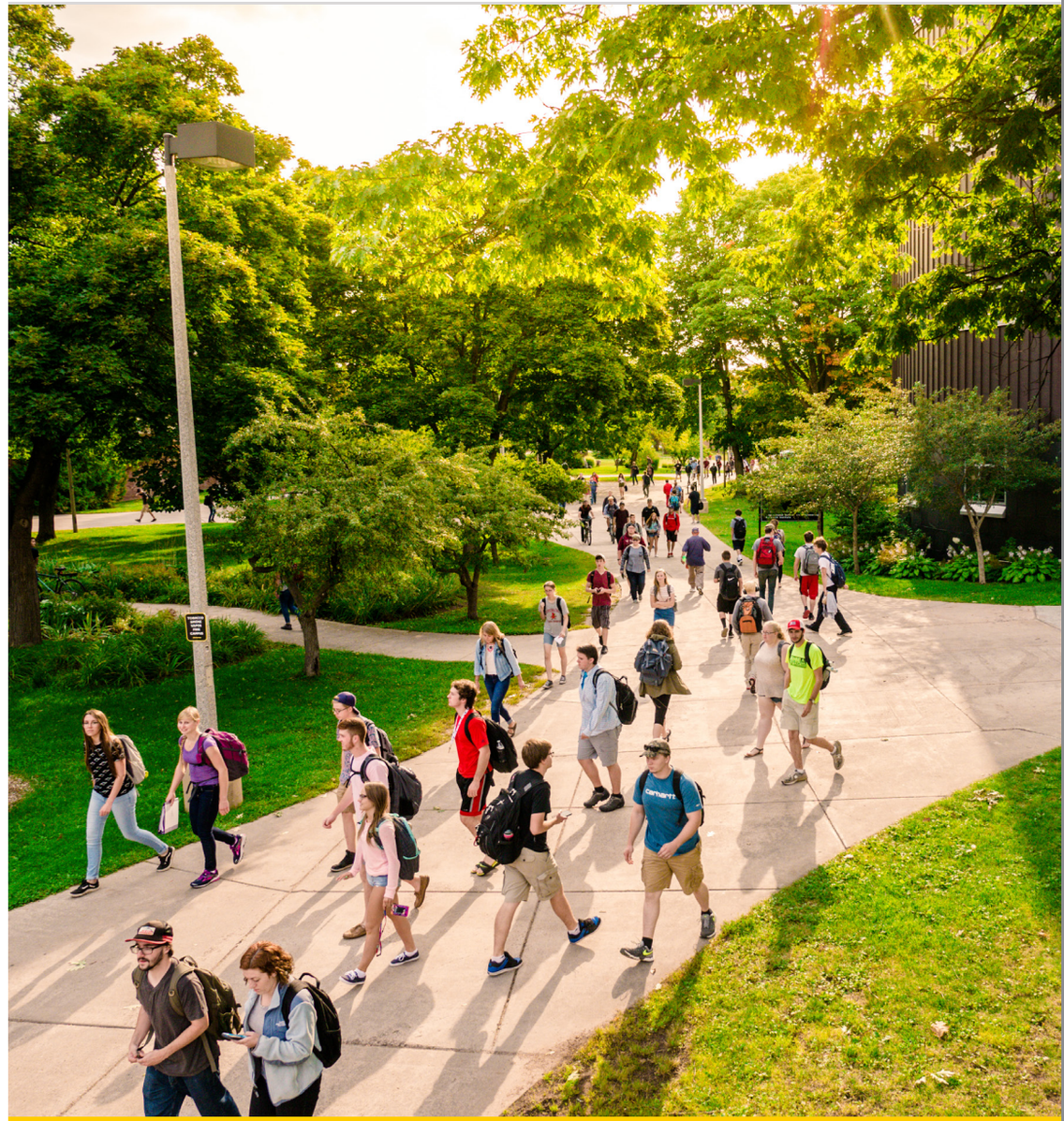
Facility Assessment Required Data

See Appendices:

Net to Gross Area Ratio Summary

Summary of Assignable Area

Statement of Values



Implementation Plan

Priority of Major Capital Projects

REQUESTED FROM THE STATE WITH ESTIMATED COSTS

Five-Year State Capital Outlay Plan and FY2025 Capital Project Request

Rank	Project Name	Gross Sq. Ft. New	Gross Sq. Ft. Renovated	Total Project Cost (000s)	State Funds (000s)	Est. Cost. Univ. Funds (000s)	Start/End Dates (years)
1	Center for Convergence and Innovation (CCI)	110,000	0	$87,000	$30,000	$57,000	2024/2028

Center for Convergence and Innovation: The Center for Convergence and Innovation (CCI) will help position Michigan's economy as a leader in digital transformation through cutting-edge research, workforce development, and strategic partnerships. According to the Michigan Bureau of Labor, the state expects an 8.5 percent increase in workforce demand for business and financial operations, a 9.1 percent increase for management, and an 11.9 percent increase for computer and mathematical operations—cumulatively generating over 58,000 projected new jobs by 2030. Michigan Tech's College of Computing has grown by more than 10 percent in each of the past three years and remains on track to double in size by the end of the decade. Michigan Tech's College of Business grew by over 20 percent this year. Taken together, the two colleges account for more than 95 percent of MTU's growth this year and almost 25 percent of MTU's total graduate enrollment. In addition, both colleges have the highest enrollment in their history. The CCI also aligns with Michigan's "Sixty by 30" and economic prosperity goals by supporting innovations in computing, connectivity, sensorization, and business in this new age of digital transformation.

Congruent with the state's long-term economic transformation, the project will provide a place for existing business, data science, and computing programs to converge to spur new degree programs, entrepreneurial projects, outreach to businesses and communities, increased industry and government funding for research, and the development of a highly agile workforce prepared to implement digital transformation solutions throughout Michigan. Students and employees from the College of Business and College of Computing will be commingled to promote cross-disciplinary collaboration, innovation, and entrepreneurship. The design of the building will intentionally promote connections among faculty and students across colleges. Reconfigurable spaces and theme-based shared digital lab facilities will be spread throughout. Additional features of the building will include convergence centers of excellence (fintech, cybersecurity, data science and business analytics, health informatics, and tech-based entrepreneurship); active-learning, computer-learning, and online-learning classrooms; flexible collaboration spaces open to all; student learning centers; open-access conference rooms; a reconfigurable digital makerspace; an entrepreneurship training hall; and large-, mid-, and small-sized lecture halls. In addition to meeting Michigan Tech's convergence needs, this building will facilitate continued aggressive growth in areas that will help Michigan reach our goal of talent retention/attraction. The estimated investment of $87,000,000 will allow Michigan Tech's College of Business and College of Computing to realize their combined potential and ensure Michigan's future economic prosperity.

Current Deferred Maintenance

Relative Estimate of Michigan Tech's Current Deferred Maintenance Backlog

In 2011, Michigan Tech contracted with the SHW Group to complete the Michigan Tech Facilities Assessment and Deferred Maintenance Capital Planning Report 2011. That report, from May 2011, determined the deferred maintenance backlog at Tech to be approximately $126,900,000. In context of the report, SHW defined deferred maintenance backlog as "expenditures for repairs which were not accomplished as part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Deferred maintenance projects represent catchup expenses."

In 2014, Tech began funding deferred maintenance, with an initial annual budget of $500,000. Since that time, just over $14,400,000 of deferred maintenance projects have been completed or are currently being completed. However, because additional items do get added as they arise, the deferred maintenance backlog is still estimated at approximately $132,000,000.

It is important to note that Michigan Tech does not intend to act on some of the deferred maintenance needs currently included within the deferred maintenance backlog. Technology changes, programmatic changes, and differing conditions at predicted end of life can impact whether a project will ever come to fruition. These items are taken into consideration annually as part of the review process and updated on a five-year deferred maintenance planning list. With this in mind, the actual deferred maintenance backlog of projects that Tech plans to address is closer to $96,000,000.

Impact from Deferred Maintenance and Structural Repairs
There is a long-term maintenance plan in place to address the deferred maintenance backlog. In FY2024, $4,250,000 in deferred maintenance projects was budgeted, with a planned increase each year until an annual total of $8,000,000 is reached and maintained.

A funding model for maintenance and renewal has been developed by the Association of Physical Plant Administrators (APPA) and the National Association of College and University Business Officers (NACUBO). A benchmark for annual funding should equal 2 percent of the building replacement value.

Addressing deferred maintenance is an important piece of the University Strategic Plan because it allows the University to provide exceptional services and infrastructure. Recently completed projects such as the $4 million renovation to the chemistry undergrad labs, classrooms, and adjacent corridors addressed both deferred maintenance issues while raising the spaces to align with the University's reputation. These spaces support a large number of students in the engineering and science majors. Elevator upgrades and replacement continue to be a priority, along with building envelope and infrastructure. Over 800 linear feet of failing domestic water pipe was replaced in the Student Development Complex, the roofs on East Wadsworth Hall, the Advanced Power Systems Research Center, and the Alumni House were replaced, and a new elevator in the Dow Environmental Sciences and Engineering Building will come online at the end of the school year.

Current investments in the campus utility systems, such as the campus generator controls, boiler burners and controls, and steam tunnel repairs and replacements, increase our reliability and resilience. Small in visibility or wow factor, but large in impact, these are the types of projects that continue to need our attention.

Current Deferred Maintenance

Relative Estimate of Michigan Tech's Current Deferred Maintenance Backlog

Status of Ongoing State Building Authority (SBA) Financed Projects
All SBA resource projects have been completed as planned to maximize program, research, and relationship (with donors who made gifts to the projects) impact. Given this, Michigan Tech is well positioned to move forward with our Five-Year Capital Outlay Plan and Capital Outlay Request, if funded.

Building	Project Status
Center for Integrated Learning and Information Technology	Completed
Environmental Sciences and Engineering Building	Completed
Great Lakes Research Center	Completed
Performing Arts and Education Center	Completed
H-STEM Engineering and Health Technologies Complex — Phase I	In Construction

Rate of Return on Planned Expenditures

Enrollment Growth Helps Rate of Return

A strong return on investment for the Center for Convergence and Innovation is supported by data on recent enrollment growth in both the College of Computing and College of Business. Since 2014, both colleges have grown considerably. Enrollment in College of Business graduate programs has more than doubled over that period, with 2022 enrollment at a record high. Similarly, enrollment in all computing programs has increased by 95 percent, with an average of 10 percent in annual growth. Including students in interdisciplinary programs, enrollment in the College of Computing increased by over 15.7 percent this year compared to fall 2022, with four different programs growing by more than 50 percent. Enrollment in programs in the College of Business has increased by 20.7 percent over the same time period. The rates of growth in enrollment in data-driven and high-demand majors housed within both the College of Business and the College of Computing are anticipated to continue to grow far into the future. As a result of this growth, the project will not impact student tuition. The costs associated with the new building will be covered by increased revenue resulting from increased enrollment in business and computing disciplines. Further, and importantly, Michigan Tech will only be able to provide access to these high-demand programs to students who are interested in pursuing degrees in these fields if we have the types of spaces and facilities that will be included in the Center for Convergence and Innovation.

Michigan Tech has worked with its capital advisors to pro forma debt service schedules and overall capacity for the project in an effort to ensure that current debt capacity exists for the University's match while maintaining our A1 credit rating. Based on projected increases in both enrollment and research funding, the University anticipates that the project will not have a negative impact on University finances, including both debt capacity and bond rating.

The rate of return on this project, like others, takes into account planned maintenance to increase efficiencies and eliminate waste. For example, in the University's H-STEM Complex, we will recommission the current HVAC infrastructure and incorporate new sustainable technologies that will improve operational savings. Our Facilities Management Sustainability Initiatives will significantly increase operational savings and enhance the rate of return over time for both the H-STEM project and the proposed Center for Convergence and Innovation.

Collaboration in this building will harness innovations in computing, connectivity, sensorization, and business intelligence, which will be work that enables Tech to strengthen Michigan's ability to serve industries around the state and advance their competitive advantage. The design of the $87 million facility is not one that just happens to teach both business and computing, but one that looks, feels, and behaves like the places students will be working in as they engage in the Fourth Industrial Revolution.

Alternatives to New Infrastructure

Michigan Tech always considers alternatives to new construction before creating new infrastructure. Since our capital outlay from the State of Michigan in 2008 for the Great Lakes Research Center, we have repurposed or expanded existing spaces to address needs.

For example, Michigan Tech created a new BS in Nursing program after another local university closed. Existing labs were retrofitted to create new nursing facilities, which have been approved and accredited. Over the past few years, the undergraduate chemistry labs were renovated with new casework, lighting, hoods, IT/AV upgrades, and infrastructure. This strategic renovation eliminated the need to build new space.

Michigan Tech's doctorate in physical therapy, which was established in partnership with Central Michigan University, occupies renovated space in an existing structure. The Advanced Technology Development Complex (ATDC) was renovated to create an innovative distance learning center that includes lecture and laboratory spaces. The main office space of the ATDC was repurposed to house the University's Advancement Department, which located them on campus in the heart of active research. A sleep laboratory was created in the existing Student Development Complex to support NIH-funded research in a quiet location that is removed from the main campus.

A new electron microscope is housed in a suite added to the ATDC that provides protection from vibration and electromagnetic interference that could negatively impact the equipment if it were located in a more congested area. Additions and renovations to the existing Chemical Sciences and Engineering Building have also been made. The new Chemical Stores facility was added to the building, and undergraduate teaching laboratories have recently been updated. As our newly adopted Campus Master Plan asserts, it has become apparent that our current space is not sufficient to address the trajectory of the University.

As a careful and conscientious steward of our facilities, Michigan Tech updates and upgrades our current spaces whenever possible. In the case of the proposed Center for Convergence and Innovation project, the magnitude of changes needed based on the large growth projections of the College of Business and College of Computing require the addition of a new space. Currently, the world's most successful companies are—at their core—computing and data intensive. By combining the College of Business and the College of Computing into a shared center, Michigan Tech will be able to address the digital transformation occurring across the entire economy. Initial discussions involved the creation of two new buildings to house the College of Business and the College of Computing separately. By strategically placing these colleges together, they will be able to share support spaces and building infrastructure. This "sharing" concept will help reduce building square footage needs and energy costs for the University as a whole.

Alternatives to New Infrastructure

The only possible alternative to the proposed project would involve complete redesign and renovation of the physical spaces that currently house the College of Business and College of Computing. However, the age of the Academic Office Building, which currently houses the College of Business, makes renovation nearly impossible. Furthermore, the current construction and layout lends itself to be repurposed into administrative space, which was the original intent for the building when it was built in 1908.

In order to meet the needs of students and faculty in both colleges, the renovation option would also require that many existing classrooms, offices, and support areas be repurposed into open and flexible collaboration spaces. This approach would result in an overall decrease in classroom, office, and support space, which would in turn lead to substantial overcrowding of remaining space within the College of Business and College of Computing, as well as other colleges. Renovations to both the College of Business and College of Computing would be very costly, making new construction the preferred approach to creating the amount and types of spaces needed.

The need for additional space is exacerbated by the fact that Michigan Tech is growing. Michigan Tech has aggressive growth goals that will allow the University to continue to support the ever-evolving tech-focused economy. Michigan Technological University welcomed 7,320 students to campus this fall, including 1,463 incoming first-year students. The last time Tech enrolled this many students was 1983. Overall enrollment is up 3.5 percent from last year, marking the third consecutive year of overall enrollment growth for the University. Because of current and planned future growth, Michigan Tech's newly adopted Campus Master Plan identifies short- and long-term priorities for improvement of our physical plant. Two conclusions that emerged from the planning process are that the University needs more flexible space to support students' and faculty members' collaboration and that there is substantial need to update laboratories and classrooms. Most of Michigan Tech's infrastructure was built during the middle of the 20th century; the building that currently houses the College of Business is much older.

Like many buildings on campus, the areas housing the College of Business and College of Computing were designed at a time when the importance of open collaboration spaces, flexible classroom designs, and the concept of putting research on display was not fully recognized. Although the University is already planning to update and repurpose existing spaces in many buildings to enable and promote the types of informal and formal collaborations that lead to innovation, construction of the Center for Convergence and Innovation will help to address the University's overall need for additional space.

Maintenance Schedule

Maintenance Schedule in Excess of $2,000,000

FY2024-FY2028 Maintenance Schedule
Scheduling of maintenance projects is informed by data collected from annual and biannual reporting on facility assessment. Project priorities are responsive to new safety standards, national benchmark goals for research spaces, and overall maintenance needs. The newly adopted Campus Master Plan provides another source of data to use in the scheduling of maintenance projects. This strategic approach allows Michigan Tech to recruit and retain research talent and provide students the most industry-relevant education. Attainment of our goals, in terms of rankings, career placement, and the University's Portrait 2045, depend on our ability to make strategic maintenance decisions.

The University recently completed a bathroom renovation project in Douglass Houghton Hall ($2,300,000). Additionally, as a result of the federally declared flooding disaster that took place on June 17, 2018, the University has undertaken a number of repair and remediation projects, including reconstruction of the garden level of the Administration Building ($2,400,000) and the ski hill restoration.

The University also completed another large maintenance project in our student apartments, the Daniell Heights Maintenance project. Other projects currently in progress include the addition of a second passenger elevator to the Dow Environmental Sciences and Engineering Building ($3,100,000), and the repairs of the Lakeshore Center dock ($1,600,000).

The University is also considering Chemical Sciences and Engineering Building window replacement ($1,250,000), Minerals and Materials Engineering Building heating and ventilation upgrades ($1,500,000), Chemical Sciences and Engineering Building HVAC upgrades ($9,000,000), Student Development Complex roof replacement ($1,200,000), Dillman Hall window replacement ($800,000), and Wadsworth Hall freight elevator upgrades ($1,500,000). While there are a number of additional projects planned for FY2023-FY2027, no other single stand-alone project valued at over $1,000,000 is planned for those years. As part of the Campus Master Plan, classrooms and teaching labs will be totally renovated across campus over the next several years, which will address ongoing maintenance issues. No individual space is greater than $1,000,000; however, in aggregate, the renovations will be in excess of $17,000,000 over the next four years.

Nonroutine Maintenance Budgeted for FY2023 and Relevant Sources of Funding
The University began budgeting general fund dollars toward nonroutine maintenance in FY2014, with $17,000,000 in projects completed to date. A total of $4,250,000 is budgeted for FY2024, with a planned increase each year until an annual total of $8,000,000 is reached and maintained. In order to maintain a budget-neutral impact on student tuition, increases in the nonroutine maintenance budget have been implemented over an extended period of time. A reserve account has been established to help address emergency repairs that occur but do not have budgets assigned.

Appendices

Class Section Counts by Enrollment and Level

Fall 2023

As defined by Common Data Set standards

Number of Students Enrolled per Class								
Undergraduate	**2-9**	**10-19**	**20-29**	**30-39**	**40-49**	**50-99**	**100+**	**Total**
Class Sections	260	265	268	103	76	123	31	1,126
Class Subsections	81	225	81	26	27	17		457
Graduate	**2-9**	**10-19**	**20-29**	**30-39**	**40-49**	**50-99**	**100+**	**Total**
Class Sections	81	27	14	8	1	1		132
Class Subsections	25	5	1	1				32

Given the expected growth in enrollment, if we maintain the current student-to-staff/faculty ratios, class size projections over the next several years should not be substantially different than the distribution shown. The project request will alleviate scheduling strain that our growing student population is placing on current facilities, particularly labs.

2025 Five-Year Capital Outlay Plan
Michigan Technological University

III. Staffing and Enrollment

Enrollment Distribution by College and Major

	Standard Learning						Online Learning						
	Undergraduate			Graduate			Undergraduate			Graduate			
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Grand Total
No College Designated													
Non Degree Seeking (GR) (NDG)	0	0	0	0	9	9	0	0	0	0	1	1	10
Non Degree Seeking (UG) (NDS)	2	48	50	0	0	0	0	0	0	0	0	0	50
Post Degree Studies (PDS)	0	13	13	0	0	0	0	0	0	0	0	0	13
Total No College Designated	**2**	**61**	**63**	**0**	**9**	**9**	**0**	**0**	**0**	**0**	**1**	**1**	**73**
College of Business													
Accounting (BACC)	41	1	42	6	4	10	0	0	0	0	0	0	52
Economics (BEC)	15	0	15	0	0	0	0	0	0	0	0	0	15
Engineering Management (BEM)	71	1	72	0	0	0	0	0	0	0	0	0	72
Finance (BFIN)	59	1	60	0	0	0	0	0	0	0	0	0	60
General Business (BGN)	43	0	43	0	0	0	0	0	0	0	0	0	43
Business Administration (BMBA)	0	0	0	23	16	39	0	0	0	2	19	21	60
Engineering Management (BMEM)	0	0	0	29	6	35	0	0	0	2	2	4	39
Management (BMGT)	52	3	55	0	0	0	0	0	0	0	0	0	55
Management Information Systems (BMIS)	37	0	37	0	0	0	0	0	0	0	0	0	37
Marketing (BMKT)	49	0	49	0	0	0	0	0	0	0	0	0	49
Applied Natural Resource Econ. (BNRE)	0	0	0	2	0	2	0	0	0	0	0	0	2
Total College of Business	**367**	**6**	**373**	**60**	**26**	**86**	**0**	**0**	**0**	**4**	**21**	**25**	**484**
College of Computing													
Artificial Intel in Healthcare (CAIH)	0	0	0	1	0	1	0	0	0	0	0	0	1
Cybersecurity (CCY)	119	0	119	0	0	0	0	0	0	0	0	0	119
General Computing (CGN)	13	0	13	0	0	0	0	0	0	0	0	0	13
Health Informatics (CHI)	0	0	0	52	6	58	0	0	0	4	6	10	68
Security & Privacy in Healthcr (CSPH)	0	0	0	0	0	0	0	0	0	0	1	1	1
Computational Science & Engrg (EPDS)	0	0	0	5	3	8	0	0	0	0	0	0	8
Data Science (IDS)	8	0	8	72	4	76	0	0	0	0	0	0	84
Data Science Foundations (IDSF)	0	0	0	0	2	2	0	0	0	0	0	0	2
Computer Science (SCS)	450	16	466	58	5	63	0	0	0	0	0	0	529
Cybersecurity (SCSC)	0	0	0	9	2	11	0	0	0	0	0	0	11
Software Engineering (SSEN)	128	6	134	0	0	0	0	0	0	0	0	0	134
Computer Network & System Admn (TCSA)	42	2	44	0	0	0	0	0	0	0	0	0	44
Electrical Eng Tech (TEET)	38	3	41	0	0	0	0	0	0	0	0	0	41
Total College of Computing	**798**	**27**	**825**	**197**	**22**	**219**	**0**	**0**	**0**	**4**	**7**	**11**	**1,055**
College of Engineering													
Adv Electric Power Engineering (CAEP)	0	0	0	0	0	0	0	0	0	0	6	6	6
Advanced Photogrammetry & Mapp (CAPM)	0	0	0	0	0	0	0	0	0	0	3	3	3
Computational Fluid Dynamics (CCFD)	0	0	0	0	0	0	0	0	0	0	3	3	3
Control Systems (CCS)	0	0	0	0	0	0	0	0	0	0	1	1	1
Electric Power Engineering (CEPE)	0	1	1	0	0	0	0	0	0	0	0	0	1
Eng Sustainability & Resilienc (CESR)	0	0	0	0	0	0	0	0	0	0	1	1	1
Hybrid Elec. Drive Vehicle Eng (CHEV)	0	0	0	0	0	0	0	0	0	0	1	1	1
Manufacturing Engineering (CME)	0	0	0	0	1	1	0	0	0	0	2	2	3
Natrl Hazds & Disaster Rsk Red (CNHD)	0	0	0	0	0	0	0	0	0	0	1	1	1
Resilient Water Infrastructure (CRWI)	0	0	0	0	0	0	0	0	0	0	1	1	1
Struc Eng: Advanced Analysis (CSEA)	0	0	0	0	0	0	0	0	0	0	1	1	1
Struc Eng: Bridge Analysis Des (CSEB)	0	0	0	0	0	0	0	0	0	0	1	1	1
Struc Eng: Building Design (CSED)	0	0	0	0	0	0	0	0	0	0	4	4	4
Struc Eng: Timber Bldg Design (CSET)	0	0	0	0	0	0	0	0	0	0	2	2	2
Vehicle Dynamics (CVD)	0	0	0	0	0	0	0	0	0	0	1	1	1
Water Resources Modeling (CWRM)	0	0	0	0	0	0	0	0	0	0	1	1	1
Applied Geophysics (EAG)	6	0	6	0	0	0	0	0	0	0	0	0	6
Biomedical Engineering (EBE)	242	10	252	30	3	33	0	0	0	0	0	0	285
Engineering (EBS)	10	2	12	0	0	0	0	0	0	0	0	0	12
Civil Engineering (ECE)	307	9	316	45	4	49	0	0	0	0	24	24	389
Geospatial Engineering (ECGE)	36	2	38	0	0	0	0	0	0	0	0	0	38
Chemical Engineering (ECM)	269	22	291	32	0	32	0	0	0	0	0	0	323
Computer Engineering (ECP)	226	4	230	5	0	5	0	0	0	0	0	0	235
Electrical & Computer Engineer (EECE)	0	0	0	34	7	41	0	0	0	0	32	32	73
Electrical Engineering (EEE)	391	13	404	20	7	27	0	0	0	0	4	4	435
Engineering Mechanics (EEM)	0	0	0	3	0	3	0	0	0	0	0	0	3
Environmental Engineering (EEN)	185	6	191	15	7	22	0	0	0	0	1	1	214
Environmental Engrg Science (EENS)	0	0	0	4	1	5	0	0	0	0	0	0	5
Geological Engineering (EGE)	23	0	23	6	1	7	0	0	0	0	0	0	30
Geology (EGL)	23	5	28	11	6	17	0	0	0	0	0	0	45
General Engineering (EGN)	103	2	105	0	0	0	0	0	0	0	0	0	105
Geophysics (EGP)	0	0	0	8	4	12	0	0	0	0	0	0	12
Engineering (EGR)	0	0	0	1	0	1	0	0	0	0	1	1	2
Mechanical Engineering (EME)	1,058	50	1,108	115	8	123	0	0	0	1	24	25	1,256
Mining Engineering (EMG)	12	1	13	10	0	10	0	0	0	0	0	0	23
Manufacturing Engineering (EMME)	0	0	0	3	2	5	0	0	0	0	3	3	8
Materials Science and Engrg (EMSE)	91	7	98	18	4	22	0	0	0	1	6	7	127
Engineering - Environmental (EPD2)	0	0	0	11	1	12	0	0	0	0	0	0	12
Computational Science & Engrg (EPD5)	0	0	0	1	0	1	0	0	0	0	0	0	1
Robotics Engineering (ERE)	87	0	87	0	0	0	0	0	0	0	0	0	87
Atmospheric Sciences (IAS)	0	0	0	2	0	2	0	0	0	0	0	0	2
Automotive Systems & Controls (IASC)	0	0	0	0	0	0	0	0	0	0	1	1	1
Mechanical Eng-Eng Mechanics (MEEM)	0	0	0	61	8	69	0	0	0	0	30	30	99
Integrated Geospatial Tech (TGT)	0	0	0	3	0	3	0	0	0	1	3	4	7
Mechanical Engineering Tech (TMET)	185	12	197	0	0	0	0	0	0	0	0	0	197
Total College of Engineering	**3,254**	**146**	**3,400**	**438**	**64**	**502**	**0**	**0**	**0**	**3**	**158**	**161**	**4,063**

2025 Five-Year Capital Outlay Plan
Michigan Technological University

III. Staffing and Enrollment

Enrollment Distribution by College and Major

	Standard Learning						Online Learning						
	Undergraduate			Graduate			Undergraduate			Graduate			
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Grand Total
College of Forest Resources and Environmental Science													
Computational Science & Engrg (EPD5)	0	0	0	1	0	1	0	0	0	0	0	0	1
Applied Ecology (FAE)	0	0	0	10	3	13	0	0	0	0	0	0	13
App Ecol & Environ Sci (FES)	67	0	67	0	0	0	0	0	0	0	0	0	67
Environ Sci & Sustainability (FESS)	18	0	18	0	0	0	0	0	0	0	0	0	18
Forest Ecology & Mgmt (FFEM)	0	0	0	4	2	6	0	0	0	0	0	0	6
Forestry (FFR)	85	3	88	0	0	0	0	0	0	0	0	0	88
Forest Science (FFS)	0	0	0	13	3	16	0	0	0	0	0	0	16
Geographic Information Science (FGIS)	0	0	0	8	3	11	0	0	0	0	0	0	11
General Forestry (FGN)	1	0	1	0	0	0	0	0	0	0	0	0	1
Forestry (FMF)	0	0	0	6	2	8	0	0	0	0	0	0	8
For Molec Genetics & Biotec (FMGB)	0	0	0	3	2	5	0	0	0	0	0	0	5
Natural Resources Management (FNRM)	4	0	4	0	0	0	0	0	0	0	0	0	4
Sustainable Bioproducts (FSB)	5	0	5	0	0	0	0	0	0	0	0	0	5
Wildlife Ecology & Cons (FWEC)	77	2	79	0	0	0	0	0	0	0	0	0	79
Total College of Forest Resources and Environmental Science	**257**	**5**	**262**	**45**	**15**	**60**	**0**	**0**	**0**	**0**	**0**	**0**	**322**
Interdisciplinary Programs													
Mechatronics (IME)	0	0	0	43	3	46	0	0	0	0	0	0	46
Mechatronics (IMX)	56	1	57	0	0	0	0	0	0	0	0	0	57
Construction Management (TCMG)	71	2	73	0	0	0	0	0	0	0	0	0	73
Total Interdisciplinary Programs	**127**	**3**	**130**	**43**	**3**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**176**
College of Sciences & Arts													
Applied Statistics (CAS)	0	0	0	0	0	0	0	0	0	0	1	1	1
Coaching Endorsement (CCE)	0	1	1	0	0	0	0	0	0	0	0	0	1
Public Policy (CSPP)	0	0	0	0	1	1	0	0	0	0	0	0	1
Computational Science & Engrg (EPD5)	0	0	0	0	3	3	0	0	0	0	0	0	3
Atmospheric Sciences (IAS)	0	0	0	7	0	7	0	0	0	0	0	0	7
Biochemistry/Molecular Biology (IBMB)	0	0	0	8	0	8	0	0	0	0	0	0	8
App. Cognitive Sci & Human Fac (SACS)	0	0	0	17	5	22	0	0	0	0	0	0	22
Humanities (SAH)	2	0	2	0	0	0	0	0	0	0	0	0	2
Anthropology (SANT)	7	0	7	0	0	0	0	0	0	0	0	0	7
Applied Physics (SAP)	24	0	24	16	1	17	0	0	0	0	0	0	41
Applied Statistics (SAST)	0	0	0	3	1	4	0	0	0	0	35	35	39
Business Analytics (SBA)	3	0	3	0	0	0	0	0	0	0	0	0	3
Bioinformatics (SBI)	0	1	1	0	0	0	0	0	0	0	0	0	1
Biological Sciences (SBL)	32	1	33	30	2	32	0	0	0	0	0	0	65
Chemistry (BA) (SCA)	3	1	4	0	0	0	0	0	0	0	0	0	4
Computational Biology (SCB)	10	0	10	0	0	0	0	0	0	0	0	0	10
Comp Chemistry & Chem Infrmtcs (SCCC)	1	0	1	0	0	0	0	0	0	0	0	0	1
Communication, Culture & Media (SCCM)	14	2	16	0	0	0	0	0	0	0	0	0	16
Chemistry (SCH)	37	1	38	31	2	33	0	0	0	0	0	0	71
Pharmaceutical Chemistry (SCHP)	4	0	4	0	0	0	0	0	0	0	0	0	4
Medicinal Chemistry (SCMC)	7	0	7	0	0	0	0	0	0	0	0	0	7
Ecology & Evolutionary Biology (SEEB)	30	0	30	0	0	0	0	0	0	0	0	0	30
Environmental & Energy Policy (SEEP)	0	0	0	11	8	19	0	0	0	0	0	0	19
Theatre & Electr. Media Perf. (SEMP)	4	0	4	0	0	0	0	0	0	0	0	0	4
English (SEN)	10	0	10	0	0	0	0	0	0	0	0	0	10
Exercise Science (SESC)	68	1	69	0	0	0	0	0	0	0	0	0	69
Audio Production & Technology (SFAT)	28	1	29	0	0	0	0	0	0	0	0	0	29
Theatre & Entertain Tech (BS) (SFET)	20	0	20	0	0	0	0	0	0	0	0	0	20
Sound Design (SFSD)	32	2	34	0	0	0	0	0	0	0	0	0	34
General Sciences and Arts (SGSA)	42	1	43	0	0	0	0	0	0	0	0	0	43
Human Biology (SHB)	67	1	68	0	0	0	0	0	0	0	0	0	68
Human Factors (SHF)	15	0	15	0	0	0	0	0	0	0	0	0	15
Indust Heritage & Archaeology (SIHA)	0	0	0	9	6	15	0	0	0	0	0	0	15
Kinesiology (SKIN)	0	0	0	10	2	12	0	0	0	0	0	0	12
Integrative Physiology (SKIP)	0	0	0	3	1	4	0	0	0	0	0	0	4
Mathematics (SMA)	41	1	42	0	0	0	0	0	0	0	0	0	42
Mathematical Sciences (SMAG)	0	0	0	19	1	20	0	0	0	0	0	0	20
Biochem & Molec Biology-Bio Sc (SMBB)	32	0	32	0	0	0	0	0	0	0	0	0	32
Biochem & Molec Biology-Chem (SMBC)	22	0	22	0	0	0	0	0	0	0	0	0	22
Mathematics & Computer Science (SMCS)	13	0	13	0	0	0	0	0	0	0	0	0	13
Medical Laboratory Science (SML)	71	0	71	0	0	0	0	0	0	0	0	0	71
Physics (BA) (SPA)	2	1	3	0	0	0	0	0	0	0	0	0	3
Policy & Community Development (SPCD)	3	0	3	0	0	0	0	0	0	0	0	0	3
Physics (SPH)	39	1	40	27	0	27	0	0	0	0	0	0	67
Psychology (SPSY)	49	2	51	0	0	0	0	0	0	0	0	0	51
Rhetoric, Theory and Culture (SRTC)	0	0	0	18	7	25	0	0	0	0	0	0	25
Sports and Fitness Management (SSFM)	10	0	10	0	0	0	0	0	0	0	0	0	10
History (SSH)	8	0	8	0	0	0	0	0	0	0	0	0	8
Social Sciences (SSS)	15	2	17	0	0	0	0	0	0	0	0	0	17
Sustainable Communities (SSSC)	0	0	0	5	0	5	0	0	0	0	0	0	5
Sustainability Sci and Society (SSSU)	19	2	21	0	0	0	0	0	0	0	0	0	21
Statistics (SST)	17	0	17	12	0	12	0	0	0	0	0	0	29
Scientific & Tech Comm (BA) (STA)	6	0	6	0	0	0	0	0	0	0	0	0	6
Scientific & Tech Comm (BS) (STC)	15	1	16	0	0	0	0	0	0	0	0	0	16
Total College of Sciences & Arts	**822**	**23**	**845**	**226**	**40**	**266**	**0**	**0**	**0**	**0**	**36**	**36**	**1,147**
University Total	**5,627**	**271**	**5,898**	**1,009**	**179**	**1,188**	**0**	**0**	**0**	**11**	**223**	**234**	**7,320**

Projected Enrollment - Fall 2016 to Fall 2029

Year (Fall)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Prelim)						
University Enrollment	7,270	7,319	7,203	7,041	6,875	7,009	7,074	7,320	7,564	7,760	8,064	8,256	8,507	8,761
Graduate Non-Degree	23	37	48	43	28	39	44	47	54	62	72	82	95	109
Masters Enrollment	904	852	781	731	703	678	820	899	933	968	1,004	1,042	1,081	1,121
Doctoral Enrollment	514	513	546	503	502	514	500	476	490	505	520	536	552	568
Graduate Enrollment	1,441	1,402	1,375	1,277	1,233	1,231	1,364	1,422	1,477	1,535	1,596	1,660	1,728	1,798
Undergraduate Enrollment	5,829	5,917	5,828	5,764	5,642	5,778	5,710	5,898	6,087	6,225	6,468	6,596	6,779	6,963

Note: Includes online learning.

Enrollment by Class - Fall 2016 to Fall 2023 (Preliminary)

	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Undergraduate								(Prelim)
Freshman	1,560	1,553	1,374	1,401	1,300	1,565	1,501	1,503
Sophomore	1,258	1,290	1,298	1,180	1,231	1,171	1,295	1,357
Junior	1,222	1,242	1,282	1,262	1,217	1,201	1,193	1,292
Senior	1,658	1,731	1,774	1,805	1,802	1,744	1,633	1,666
Total Undergraduate	**5,698**	**5,816**	**5,728**	**5,648**	**5,550**	**5,681**	**5,622**	**5,818**
Graduate								
Master's	858	809	735	639	557	547	678	735
Doctoral	493	494	520	478	475	484	461	439
Total Graduate	**1,351**	**1,303**	**1,255**	**1,117**	**1,032**	**1,031**	**1,139**	**1,174**
Total Standard Degree Seeking	**7,049**	**7,119**	**6,983**	**6,765**	**6,582**	**6,712**	**6,761**	**6,992**
Other Standard Learning								
Special & Unclassified	86	69	65	80	54	64	57	50
Post Graduate	44	32	35	36	38	33	31	30
Non-degree Graduate	19	24	33	31	13	15	14	14
Total Other Standard Students	**149**	**125**	**133**	**147**	**105**	**112**	**102**	**94**
Online Learning	**72**	**75**	**87**	**129**	**188**	**185**	**211**	**234**
Total All Students	**7,270**	**7,319**	**7,203**	**7,041**	**6,875**	**7,009**	**7,074**	**7,320**

Faculty and Staff to Student Ratios for Major Academic Colleges - Fiscal Year 2022-23

	Faculty FTE	Staff FTE	Student FYES	Faculty to Students Ratio	Staff to Students Ratio	Faculty and Staff to Students Ratio
College of Engineering	160.6	119.5	2,058.3	1:13	1:17	1:7
College of Science & Arts	167.7	65.9	2,857.5	1:17	1:43	1:12
Total University*	419.5	1,027.5	6,279.9	1:15	1:6	1:4

*Also includes Colleges of Business, Forest Resources and Environmental Science, Computing, and all non-academic departments.

Note: FTE and FYES is based on the academic year. FTE excludes temporary nonrepresented employees.

Number of Class Sections with Students Enrolled by Level* - Fall 2023 (Preliminary)

Undergraduate	**2-9**	**10-19**	**20-29**	**30-39**	**40-49**	**50-99**	**100+**	**Total**
Class Sections	260	265	268	103	76	123	31	1,126
Class Sub-Sections	81	225	81	26	27	17		457
Graduate	**2-9**	**10-19**	**20-29**	**30-39**	**40-49**	**50-99**	**100+**	**Total**
Class Sections	81	27	14	8	1	1		132
Class Sub-Sections	25	5	1	1				32

* As defined by Common Data Set standards

Online Learning Projections 2023-24 through 2028-29

Year	Type of Students[1]		Projected #	G/UG%[2]
2023-24	A. On Campus Online		1,455	20/80
	B. Off Campus Online		1,256	25/75
	C. Corporate Off Campus		15	100/0
	D. Dual-Enrollment	Secondary School	5	0/100
2024-25	A. On Campus Online		1,528	20/80
	B. Off Campus Online		1,319	25/75
	C. Corporate Off Campus		20	100/0
	D. Dual-Enrollment	Secondary School	6	0/100
2025-26	A. On Campus Online		1,589	25/75
	B. Off Campus Online		1,372	30/70
	C. Corporate Off Campus		26	100/0
	D. Dual-Enrollment	Secondary School	7	0/100
2026-27	A. On Campus Online		1,653	33/67
	B. Off Campus Online		1,427	30/70
	C. Corporate Off Campus		34	100/0
	D. Dual-Enrollment	Secondary School	8	0/100
2027-28	A. On Campus Online		1,703	35/65
	B. Off Campus Online		1,470	40/60
	C. Corporate Off Campus		45	100/0
	D. Dual-Enrollment	Secondary School	9	0/100
2028-29	A. On Campus Online		1,735	35/65
	B. Off Campus Online		1,498	40/60
	C. Corporate Off Campus		56	100/0
	D. Dual-Enrollment	Secondary School	10	0/100

Notes:

1 A type- On Campus Online- Students taking at least one class using Online technology.

B type- Off Campus Online- Students taking at least one class using Online technology.

C type- Current corporate contract model- GM, Ford, and others.

D type- Dual enrollment with secondary school students with targeted service and recruiting effort. Usually one course a term.

2 G/UG% Graduate/ Undergraduate %

#	BUILDING	TYPE	GROSS	NET	RATIO
1	Administration Building	Administrative	73,389	50,500	1.45
2	Electrical Substation	Service	786	545	1.44
3	Michigan Tech Lakeshore Center	Administrative	61,365	39,400	1.56
4	ROTC Building	Classroom - 70%, Offices - 30%	21,584	14,824	1.46
5	Academic Offices Building	Offices	27,405	17,869	1.53
6	Annex Building	Science	10,956	9,042	1.21
7	Electrical Energy Resources	Engineering	162,140	108,843	1.49
8	DOW Envir Sciences & Eng Bldg	Engineering - 70%, Biology - 30%	184,180	110,459	1.67
9	Alumni House	Administrative	7,784	4,790	1.63
10	Rozsa Performing Arts & Educ	Auditorium	80,000	51,309	1.56
11	Walker - Arts & Humanities	Classroom	87,094	49,176	1.77
12	Minerals & Materials Engr Bldg	Engineering - 69%, Laboratory 31%	263,671	144,670	1.82
13	Center for Diversity and Inclusion	Administrative	4,259	3,544	1.20
14	Grover C. Dillman Hall	Engineering - 75%, Classroom - 25%	90,959	58,809	1.55
15	Fisher Hall	Science - 63%, Classroom - 37%	112,100	67,123	1.67
16	Public Safety & Police Services Building	Administrative	2,755	2,078	1.33
17	J.R. Van Pelt Library	Library	130,031	105,824	1.23
18	U.J. Noblet Forestry Building	Science - 64%, Laboratory - 30%, Classroom - 6%	95,337	71,425	1.33
19	Chemical Sciences & Engr Building	Engineering - 32%, Chemistry - 9%, Laboratory - 31%,	162,500	94,921	1.71
20	R.L. Smith (MEEM) Building	Engineering - 49%, Laboratory - 23%, Classroom - 28%	162,500	96,108	1.69
24	Student Development Complex	Gymnasium	343,393	235,274	1.46
25	Kearly Stadium Press Box	Gymnasium	4,416	3,445	1.28
26	MTN Uplink Equipment Bldg	Service	265	120	2.21
28	Kanwal and Ann Rekhi Hall	Science - 86%, Classroom - 14%	51,439	39,352	1.31
30	Little Huskies Child Care	Dormitory	4,600	4,096	1.12
31	Douglass Houghton Hall	Dormitory	92,500	55,956	1.65
32	Daniell Heights Apartments	Dormitory	220,700	174,977	1.26
33	Daniell Heights Maintenance	Service	1,152	1,081	1.07
34	Memorial Union Building	Administrative	92,935	63,387	1.47
35	Daniell Heights Nursery	Dormitory	2,400	2,190	1.10
36	21725 Woodland Road House	Dormitory	2,452	2,269	1.08
37	Wadsworth Hall	Dormitory	300,239	185,647	1.62
38	West McNair Hall	Dormitory	51,522	32,516	1.58
39	McNair Hall Food Services	Dining Hall	18,000	11,683	1.54
40	East McNair Hall	Dormitory	71,300	45,686	1.56
41	Central Energy Plant	Service	12,780	10,386	1.23
42	Facilities Management Storage	Warehouse	5,680	5,322	1.07
44	Facilities Building	Service	21,176	16,377	1.29
45	Kettle-Gundlach House	Dormitory	5,620	4,072	1.38
46	Tech Trails Waxing Center	Gymnasium	4,536	3,629	1.25
47	217 East Street House	Dormitory	3,191	3,135	1.02
48	Hillside Place	Dormitory	77,926	56,330	1.38
49	Property Storage	Warehouse	4,872	4,644	1.05
50	Gates Tennis Center	Gymnasium	29,610	28,737	1.03
51	207 East Street House	Administration	2,972	2,573	1.16
52	PLGC Clubhouse	Gymnasium	4,465	4,271	1.05
53	Mont Ripley Ski Hill	Gymnasium	2,100	1,987	1.06
54	Mont Ripley Ski Chalet	Gymnasium	4,600	3,644	1.26
55	Mont Ripley Storage	Warehouse	4,080	3,240	1.26
56	Daniell Heights Storage 56	Warehouse	1,261	1,189	1.06
57	209 East Street House	Dormitory	2,891	1,985	1.46
58	PLGC Maintenance -1	Warehouse	3,276	2,621	1.25
59	PLGC Maintenance -2	Warehouse	625	502	1.25
60	PLGC Cart Storage -A	Warehouse	4,500	3,600	1.25
61	PLGC Cart Storage - B	Warehouse	3,600	2,800	1.29
62	PLGC Cart Storage -C	Warehouse	4,500	3,600	1.25
63	PLGC Maintenance - 3	Service	1,040	664	1.57
64	PLGC Pump House	Service	144	115	1.25

#	BUILDING	TYPE	GROSS	NET	RATIO
65	Daniell Heights Storage 65	Warehouse	3,200	3,081	1.04
66	Tech Trails Timing Building	Gymnasium	192	165	1.16
67	Tech Trails Warming Building	Gymnasium	280	247	1.13
68	SDC Storage	Warehouse	1,800	1,711	1.05
69	KRC Engineering Design Center	Engineering	13,998	6,751	2.07
70	KRC Scientific & Admin Offices	Offices	10,037	7,141	1.41
71	KRC Machine & Vehicle Shops	Service	4,000	3,823	1.05
72	KRC Vehicle Service Bldg T3	Service	5,538	5,421	1.02
73	KRC Vehicle Storage Bldg T4	Warehouse	4,000	3,861	1.04
74	KRC Engineering Laboratories	Engineering - 17%, Laboratory - 83%	4,610	3,362	1.37
75	KRC Special Projects Facility	Engineering	1,000	787	1.27
76	KRC Support Services Facility	Service	1,000	894	1.12
77	KRC Water Truck Storage	Warehouse	1,600	1,490	1.07
78	KRC Eng Support Facil Bendix	Engineering	5,152	4,786	1.08
79	KRC Chrysler Support Fac II	Engineering	4,000	3,746	1.07
80	KRC Cold Storage Building	Warehouse	4,000	3,828	1.04
81	Power Generation Building	Service	3,432	3,151	1.09
82	21610 Woodland Road House	Dormitory	5,702	4,708	1.21
84	Harold Meese Center	Science - 88%, Classroom - 12%	15,020	10,292	1.46
88	DPSPS/EMS Building	Warehouse	1,000	922	1.08
89	Tech Trails Maintenance	Warehouse	1,200	1,131	1.06
90	Sands Pilot Plant	Engineering	11,520	10,805	1.07
92	Advanced Energy Research Building	Engineering - 15%, Laboratory - 85%	4,128	3,844	1.07
93	Fish Hatchery Building	Science	1,360	1,100	1.24
94	AMJOCH Observatory	Science	433	352	1.23
95	Advanced Technology Development	Administrative - 12%, Engineering - 60%, Science - 15%	25,012	20,676	1.21
96	SDC Annex Building	Warehouse	2,786	2,700	1.03
100	Great Lakes Research Center	Laboratory - 27%, Science - 73%	54,778	35,936	1.52
101	Tech Trails Storage	Warehouse	672	646	1.04
102	Advanced Power Systems Research	Laboratory - 93%, Office - 7%	56,332	53,114	1.06
103	A.E. Seaman Mineral Museum	Library	9,000	8,234	1.09
104	Mineral Museum Storage	Warehouse	2,340	1,983	1.18
105	KRC Cold Storage Building	Warehouse	1,600	1,403	1.14
106	Sands Storage	Warehouse	576	529	1.09
107	212 East Street House	Dormitory	2,630	2,406	1.09
108	KRC Inspection Pit	Service	416	375	1.11
109	Mt Ripley Pump House	Service	570	529	1.08
110	214 East Street House	Dormitory	2,756	1,843	1.50
111	46645 US-41 House	Dormitory	5,721	4,577	1.25
112	Facilities Storage	Warehouse	6,600	6,447	1.02
113	Salt Storage Building	Warehouse	1,932	1,760	1.10
112	Nara Family Maple Center	Classroom	557	498	1.12
201	FCF Hemlock Residence	Dormitory	1,326	1,728	0.77
202	FCF Sassafras Residence	Dormitory	1,200	952	1.26
203	FCF Elm Residence	Dormitory	1,348	1,078	1.25
204	FCF Birdseye Residence	Dormitory	1,581	1,265	1.25
205	FCF Spruce Residence	Dormitory	1,462	1,170	1.25
206	FCF Tamarack Residence	Dormitory	1,779	1,423	1.25
207	FCF Birch Residence	Dormitory	1,392	1,114	1.25
208	FCF Basswood Residence	Dormitory	1,515	1,212	1.25
209	FCF Cedar Residence	Dormitory	1,470	1,176	1.25
210	FCF Beech Residence	Dormitory	1,269	1,015	1.25
211	FCF Ash Residence	Dormitory	2,114	1,691	1.25
212	FCF Balsam Residence	Dormitory	864	691	1.25
213	FCF Pump House	Service	1,070	636	1.68
214	FCF Sawmill Museum	Library	6,720	5,376	1.25
215	FCF 8-Car Garage	Garage	1,872	1,384	1.35
216	FCF Dorm 2	Dormitory	2,428	1,327	1.83

#	BUILDING	TYPE	GROSS	NET	RATIO
217	FCF Classroom 1	Classroom	2,480	1,957	1.27
218	FCF Sauna Building	Dormitory	864	691	1.25
219	FCF Classroom 2	Classroom	1,125	920	1.22
220	FCF Recreation	Dormitory	1,178	1,068	1.10
221	FCF Computer Lab	Classroom	1,487	920	1.62
222	FCF Classroom 3	Classroom	1,305	1,089	1.20
223	FCF Dorm 1	Dormitory	11,250	9,000	1.25
224	FCF Carriage House	Dormitory	2,501	2,156	1.16
225	FCF Storage 3	Warehouse	255	204	1.25
226	FCF Storage 2	Warehouse	2,320	1,856	1.25
227	FCF Storage 1	Warehouse	260	208	1.25
229	FCF Lumber Storage	Warehouse	2,520	2,016	1.25
230	FCF 9-Car Garage	Garage	4,180	3,344	1.25
231	FCF Maintenance	Service	9,285	8,703	1.07
233	FCF Main Office	Office	3,200	2,920	1.10
235	FCF Wellhouse	Service	228	183	1.25
236	FCF Reservoir Shelter	Service	768	614	1.25

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
1	5	Acad Ofc	201	ClsRm	610	10	1	12	40%	3	15%
2	19	Chem-Sci	101	ClsRm	1,184	66	2	85	81%	6	30%
3	19		102	ClsRm	1,162	66	2	50	100%	3	15%
4	19		103	ClsLab	1,308	20	2	26	81%	6	30%
5	19		108	ClsLab	1,162	44	2	64	80%	6	30%
6	19		211	ClsRm	1,155	55	3	80	73%	7	35%
7	19		215	ClsRm	584	30	1	19	86%	2	10%
8	19		0501N	ClsLab	976	24	2	38	86%	6	30%
9	19		0501S	ClsLab	976	24	2	38	86%	6	30%
10	19		502	ClsLab	1,124	24	2	34	77%	6	30%
11	19		0503N	ClsLab	966	24	2	38	86%	6	30%
12	19		0503S	ClsLab	966	24	2	40	91%	6	30%
13	19		0601N	ClsLab	1,048	28	2	23	82%	6	30%
14	19		0601S	ClsLab	1,048	28	1	8	57%	3	15%
15	19		B005	ClsLab	2,473	24	2	80	91%	12	60%
16	8	Dow	610	ClsLab	890	26	2	18	45%	5	25%
17	8		641	ClsRm	2,923	250	4	444	85%	10	50%
18	8		642	ClsRm	1,601	84	2	69	49%	6	30%
19	8		709	ClsLab	744	23	2	16	40%	3	15%
20	7	EERC	100	ClsRm	1,307	82	1	47	63%	3	15%
21	7		103	ClsRm	2,396	151	1	77	59%	2	10%
22	7		214	ClsRm	983	65	1	41	68%	3	15%
23	7		216	ClsRm	551	36	3	42	60%	5	25%
24	7		218	ClsRm	683	45	2	20	44%	4	20%
25	7		226	ClsRm	683	46	1	19	42%	1	5%
26	7		227	ClsRm	551	36	1	22	73%	2	10%
27	7		229	ClsRm	1,048	65	1	17	85%	3	15%
28	7		313	ClsRm	571	36	3	20	50%	6	30%
29	7		314	ClsRm	553	36	1	8	67%	3	15%
30	7		315	ClsRm	553	36	2	32	71%	6	30%
31	7		316	ClsRm	823	60	3	77	81%	6	30%
32	7		328	ClsLab	1,140	24	2	41	103%	4	20%
33	7		421	ClsLab	844	24	1	12	60%	1	5%
34	7		427	ClsLab	1,000	24	2	17	94%	2	10%
35	7		430	ClsLab	685	2	2	6	75%	2	10%
36	7		431	ClsLab	1,206	16	3	28	64%	4	20%
37	7		622	ClsLab	983	16	1	13	87%	2	10%
38	7		738	ClsLab	1,001	18	1	17	57%	2	10%
39	15	Fisher	101	ClsRm	937	32	2	37	100%	3	15%
40	15		125	ClsRm	583	35	3	53	66%	8	40%
41	15		126	ClsRm	593	35	4	85	97%	5	25%
42	15		127	ClsRm	693	35	3	53	79%	8	40%
43	15		129	ClsRm	792	53	3	123	87%	9	45%
44	15		130	ClsRm	712	44	4	53	57%	9	45%
45	15		131	ClsRm	712	44	2	52	87%	5	25%
46	15		132	ClsRm	693	44	4	83	90%	9	45%
47	15		133	ClsRm	693	44	3	61	91%	7	35%
48	15		135	ClsRm	5,036	476	2	277	81%	5	25%
49	15		138	ClsRm	1,395	92	2	107	96%	6	30%
50	15		139	ClsRm	2,016	125	2	199	100%	6	30%
51	15		229	ClsLab	702	14	5	117	102%	10	50%
52	15		230	ClsRm	579	35	2	32	71%	5	25%
53	15		231	ClsRm	697	44	1	8	67%	3	15%
54	15		325	ClsRm	1,064	72	2	98	96%	8	40%
55	15		326	ClsRm	1,064	71	4	199	99%	12	60%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
56	15		0327B	ClsRm	445	27	2	23	51%	6	30%
57	15		328	ClsRm	928	62	3	127	82%	9	45%
58	15		329	ClsRm	1,065	72	2	105	99%	8	40%
59	15		330	ClsLab	1,065	24	2	20	50%	4	20%
60	15		B020	ClsLab	941	27	5	131	101%	10	50%
61	100	GLRC	102	ClsLab	1,374	28	1	16	107%	3	15%
62	100		B003	ClsLab	723	13	3	36	92%	5	25%
63	14	Dillman	101	ClsLab	2,187	60	3	93	78%	6	30%
64	14		202	ClsRm	776	36	3	48	71%	5	25%
65	14		203	ClsLab	863	26	2	42	105%	4	20%
66	14		204	ClsRm	761	43	3	48	79%	7	35%
67	14		208	ClsLab	1,559	64	7	127	88%	9	45%
68	14		211	ClsLab	968	48	1	17	85%	3	15%
69	14		214	ClsRm	954	60	3	81	55%	6	30%
70	14		320	ClsRm	1,051	43	5	72	67%	8	40%
71	14		B008	ClsLab	1,495	15	1	15	100%	3	15%
72	84	Meese	109	ClsRm	680	25	1	6	30%	3	15%
73	84		110	ClsRm	564	25	1	13	65%	3	15%
74	28	Rekhi	112	ClsLab	775	20	3	80	73%	6	30%
75	28		214	ClsRm	1,328	48	1	15	38%	3	15%
76	28		G005	ClsRm	1,253	54	2	35	78%	5	25%
77	28		G009	ClsRm	1,280	48	3	76	73%	7	35%
78	12	M&M Bldg	U111	ClsRm	723	30	1	7	70%	3	15%
79	12		U113	ClsRm	1,069	63	3	79	76%	6	30%
80	12		U115	ClsRm	2,540	240	3	173	65%	7	35%
81	12		U205	ClsRm	421	26	1	10	100%	3	15%
82	12		U209	ClsLab	664	7	2	15	75%	1	5%
83	20	MEEM	111	ClsRm	1,429	96	3	154	84%	5	25%
84	20		112	ClsRm	1,652	115	3	254	88%	7	35%
85	20		120	ClsLab	2,630	72	5	288	91%	8	40%
86	20		202	ClsLab	951	16	2	23	72%	4	20%
87	20		302	ClsRm	1,129	48	2	53	76%	6	30%
88	20		303	ClsRm	1,131	48	2	46	96%	2	10%
89	20		305	ClsLab	1,175	16	1	11	92%	2	10%
90	20		402	ClsRm	1,265	48	2	6	11%	6	30%
91	20		403	ClsRm	1,131	48	6	111	65%	10	50%
92	20		405	ClsRm	607	40	7	137	86%	12	60%
93	20		406	ClsRm	1,130	40	3	55	69%	6	30%
94	20		502	ClsLab	928	16	1	16	100%	2	10%
95	20		0502A	ClsLab	712	16	3	40	95%	6	30%
96	20		505	ClsLab	1,588	16	2	20	67%	4	20%
97	20		701	ClsLab	867	16	3	34	81%	6	30%
98	20		1101	ClsLab	1,224	19	2	38	106%	4	20%
99	20		1108	ClsLab	1,116	24	1	21	88%	2	10%
100	4	ROTC	101	ClsRm	1,273	47	2	12	40%	2	10%
101	10	Rozsa Ctr	208	ClsLab	1,790	50	1	7	70%	3	15%
102	24	SDC	237	ClsRm	789	48	3	47	64%	5	25%
103	24		238	ClsRm	705	40	1	5	17%	1	5%
104	18	Noblet	108	ClsLab	692	24	1	8	40%	3	15%
105	18		143	ClsRm	616	40	3	45	69%	6	30%
106	18		144	ClsRm	1,689	26	2	48	69%	6	30%
107	18		G002	ClsRm	1,768	125	11	214	92%	7	35%
108	18		G029	ClsLab	1,104	32	2	4	27%	7	35%
109	17	Library	242	ClsLab	1,192	25	1	17	100%	3	15%
110	11	Walker	109	ClsRm	792	36	3	91	100%	9	45%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
111	11		0120A	ClsRm	904	30	1	24	120%	3	15%
112	11		134	ClsRm	1,173	40	2	54	98%	6	30%
113	11		143	ClsRm	647	25	3	61	90%	9	45%
114	11		144	ClsRm	634	25	3	42	65%	9	45%
115	11		204	ClsLab	745	5	1	9	150%	3	15%
116	11		210	ClsLab	1,426	40	2	35	88%	6	30%
	Grand Totals:		Rooms: 116		126,477	5,573	275	6,915	80%	610	27%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
1	5	Acad Ofc	201	ClsRm	610	10	5	86	84%	13	52%
2	19	Chem-Sci	101	ClsRm	1,184	66	8	272	75%	22	88%
3	19		102	ClsRm	1,162	66	1	52	100%	2	8%
4	19		103	ClsLab	1,308	20	2	29	91%	6	24%
5	19		106	ClsRm	565	30	4	33	56%	8	32%
6	19		108	ClsLab	1,162	44	6	123	61%	18	72%
7	19		211	ClsRm	1,155	55	7	201	79%	21	84%
8	19		215	ClsRm	584	30	13	183	66%	21	84%
9	19		408	ClsLab	1,755	12	1	9	90%	6	24%
10	19		0501N	ClsLab	976	24	2	36	82%	6	24%
11	19		0501S	ClsLab	976	24	2	33	75%	6	24%
12	19		502	ClsLab	1,124	24	2	36	82%	6	24%
13	19		0503N	ClsLab	966	24	2	37	84%	6	24%
14	19		0503S	ClsLab	966	24	2	37	84%	6	24%
15	19		504	ClsLab	1,100	24	2	29	81%	6	24%
16	19		0601N	ClsLab	1,048	28	3	36	86%	9	36%
17	19		0601S	ClsLab	1,048	28	2	27	96%	6	24%
18	8	Dow	420	ClsLab	1,878	15	5	15	65%	2	8%
19	8		610	ClsLab	890	26	7	82	67%	10	40%
20	8		641	ClsRm	2,923	250	6	647	66%	15	60%
21	8		642	ClsRm	1,601	84	9	535	86%	26	104%
22	8		707	ClsLab	1,198	24	2	26	173%	4	16%
23	8		709	ClsLab	744	23	4	29	48%	4	16%
24	8		710	ClsLab	1,287	24	8	56	66%	11	44%
25	8		711	ClsLab	937	16	4	21	35%	6	24%
26	7	EERC	100	ClsRm	1,307	82	7	332	69%	19	76%
27	7		103	ClsRm	2,396	151	8	712	79%	23	92%
28	7		214	ClsRm	983	65	9	316	69%	18	72%
29	7		216	ClsRm	551	36	7	79	66%	14	56%
30	7		218	ClsRm	683	45	6	121	72%	15	60%
31	7		226	ClsRm	683	46	10	130	54%	19	76%
32	7		227	ClsRm	551	36	10	61	44%	21	84%
33	7		229	ClsRm	1,048	65	8	286	76%	18	72%
34	7		313	ClsRm	571	36	6	95	75%	16	64%
35	7		314	ClsRm	553	36	6	77	57%	15	60%
36	7		315	ClsRm	553	36	6	62	53%	13	52%
37	7		316	ClsRm	823	60	5	188	94%	16	64%
38	7		328	ClsLab	1,140	24	5	89	95%	8	32%
39	7		330	ClsLab	1,558	42	2	45	80%	4	16%
40	7		421	ClsLab	844	24	9	106	63%	20	80%
41	7		427	ClsLab	1,000	24	8	69	73%	10	40%
42	7		430	ClsLab	685	2	6	20	83%	6	24%
43	7		431	ClsLab	1,206	16	5	65	65%	12	48%
44	7		622	ClsLab	983	16	6	78	87%	12	48%
45	7		722	ClsLab	978	30	1	12	75%	2	8%
46	7		738	ClsLab	1,001	18	6	116	64%	12	48%
47	7		827	ClsLab	983	16	7	86	88%	14	56%
48	15	Fisher	101	ClsRm	937	32	9	143	80%	20	80%
49	15		125	ClsRm	583	35	9	126	65%	23	92%
50	15		126	ClsRm	593	35	10	170	79%	21	84%
51	15		127	ClsRm	693	35	8	145	73%	17	68%
52	15		129	ClsRm	792	53	8	199	75%	22	88%
53	15		130	ClsRm	712	44	9	146	76%	21	84%
54	15		131	ClsRm	712	44	8	164	74%	22	88%
55	15		132	ClsRm	693	44	9	133	70%	17	68%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
56	15		133	ClsRm	693	44	10	140	67%	18	72%
57	15		135	ClsRm	5,036	476	9	1,940	72%	24	96%
58	15		138	ClsRm	1,395	92	6	318	83%	17	68%
59	15		139	ClsRm	2,016	125	8	723	94%	23	92%
60	15		229	ClsLab	702	14	11	249	98%	22	88%
61	15		230	ClsRm	579	35	7	117	68%	17	68%
62	15		231	ClsRm	697	44	7	110	71%	13	52%
63	15		325	ClsRm	1,064	72	8	283	90%	21	84%
64	15		326	ClsRm	1,064	71	7	296	87%	21	84%
65	15		0327B	ClsRm	445	27	7	68	54%	18	72%
66	15		328	ClsRm	928	62	7	336	92%	21	84%
67	15		329	ClsRm	1,065	72	6	293	99%	20	80%
68	15		330	ClsLab	1,065	24	1	11	46%	2	8%
69	15		B020	ClsLab	941	27	14	339	95%	28	112%
70	15		B023	ClsLab	960	12	6	74	106%	12	48%
71	100	GLRC	102	ClsLab	1,374	28	4	66	100%	10	40%
72	100		B003	ClsLab	723	13	4	45	76%	6	24%
73	14	Dillman	101	ClsLab	2,187	60	7	128	63%	13	52%
74	14		110	ClsLab	1,066	16	3	46	96%	6	24%
75	14		202	ClsRm	776	36	10	135	65%	19	76%
76	14		203	ClsLab	863	26	5	60	73%	6	24%
77	14		204	ClsRm	761	43	9	123	73%	12	48%
78	14		208	ClsLab	1,559	64	10	192	89%	12	48%
79	14		211	ClsLab	968	48	8	105	58%	11	44%
80	14		214	ClsRm	954	60	9	378	87%	23	92%
81	14		302	ClsLab	1,243	32	4	113	74%	8	32%
82	14		320	ClsRm	1,051	43	6	119	71%	15	60%
83	14		B003	ClsLab	988	16	3	37	77%	9	36%
84	14		B008	ClsLab	1,495	15	2	28	93%	6	24%
85	84	Meese	109	ClsRm	680	25	2	23	115%	5	20%
86	84		110	ClsRm	564	25	2	26	52%	4	16%
87	28	Rekhi	112	ClsLab	775	20	8	284	94%	16	64%
88	28		113	ClsLab	777	20	2	50	69%	4	16%
89	28		117	ClsLab	1,153	18	5	31	61%	9	36%
90	28		214	ClsRm	1,328	48	9	226	79%	20	80%
91	28		G005	ClsRm	1,253	54	7	219	83%	20	80%
92	28		G009	ClsRm	1,280	48	8	181	74%	19	76%
93	12	M&M Bldg	U106	ClsLab	347	5	2	10	77%	2	8%
94	12		U111	ClsRm	723	30	2	19	95%	6	24%
95	12		U113	ClsRm	1,069	63	17	253	63%	16	64%
96	12		U115	ClsRm	2,540	240	9	693	80%	22	88%
97	12		U205	ClsRm	421	26	1	10	100%	2	8%
98	12		U209	ClsLab	664	7	2	15	75%	2	8%
99	20	MEEM	111	ClsRm	1,429	96	6	341	88%	21	84%
100	20		112	ClsRm	1,652	115	7	592	88%	16	64%
101	20		120	ClsLab	2,630	72	5	136	76%	9	36%
102	20		202	ClsLab	951	16	6	45	75%	8	32%
103	20		302	ClsRm	1,129	48	7	118	63%	17	68%
104	20		303	ClsRm	1,131	48	8	187	69%	13	52%
105	20		305	ClsLab	1,175	16	4	47	98%	8	32%
106	20		402	ClsRm	1,265	48	7	168	63%	20	80%
107	20		403	ClsRm	1,131	48	5	58	41%	12	48%
108	20		405	ClsRm	607	40	9	192	91%	10	40%
109	20		406	ClsRm	1,130	40	8	166	69%	14	56%
110	20		502	ClsLab	928	16	5	30	68%	6	24%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
111	20		0502A	ClsLab	712	16	5	58	83%	10	40%
112	20		505	ClsLab	1,588	16	3	35	78%	6	24%
113	20		601	ClsLab	1,980	16	4	37	53%	8	32%
114	20		701	ClsLab	867	16	5	63	90%	10	40%
115	20		1101	ClsLab	1,224	19	3	56	104%	6	24%
116	20		1103	ClsLab	1,092	20	3	51	85%	7	28%
117	20		1106	ClsLab	1,064	24	2	38	95%	6	24%
118	20		1108	ClsLab	1,116	24	3	46	64%	6	24%
119	4	ROTC	101	ClsRm	1,273	47	8	47	41%	8	32%
120	10	Rozsa Ctr	120	ClsRm	1,448	60	3	77	91%	9	36%
121	10		208	ClsLab	1,790	50	4	62	81%	12	48%
122	24	SDC	237	ClsRm	789	48	7	50	35%	11	44%
123	24		238	ClsRm	705	40	4	46	47%	8	32%
124	18	Noblet	108	ClsLab	692	24	13	242	84%	28	112%
125	18		139	ClsLab	618	18	9	74	59%	17	68%
126	18		143	ClsRm	616	40	11	140	60%	21	84%
127	18		144	ClsRm	1,689	26	15	227	84%	24	96%
128	18		146	ClsLab	997	24	1	20	87%	3	12%
129	18		157	ClsLab	954	24	5	81	96%	15	60%
130	18		G002	ClsRm	1,768	125	8	509	92%	17	68%
131	18		G029	ClsLab	1,104	32	5	84	70%	20	80%
132	17	Library	242	ClsLab	1,192	25	4	49	77%	9	36%
133	17		243	ClsRm	578	21	1	5	20%	3	12%
134	11	Walker	109	ClsRm	792	36	6	127	71%	18	72%
135	11		0120A	ClsRm	904	30	6	129	96%	18	72%
136	11		134	ClsRm	1,173	40	8	218	99%	24	96%
137	11		138	ClsRm	296	1	3	22	42%	9	36%
138	11		143	ClsRm	647	25	8	161	85%	22	88%
139	11		144	ClsRm	634	25	6	81	59%	18	72%
140	11		202	ClsLab	1,009	28	2	29	104%	8	32%
141	11		210	ClsLab	1,426	40	3	50	91%	9	36%
142	11		211	ClsLab	731	15	2	22	92%	6	24%
143	11		212	ClsLab	404	15	2	11	58%	6	24%
	Grand Totals:		Rooms: 143		153,203	6,162	845	20,980	77%	1,852	52%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 3:00 PM - 5:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
1	19	Chem-Sci	101	ClsRm	1,184	66	13	66	25%	4	20%
2	19		102	ClsRm	1,162	66	2	19	43%	2	10%
3	19		211	ClsRm	1,155	55	1	57	89%	3	15%
4	19		215	ClsRm	584	30	1	17	85%	3	15%
5	19		0501N	ClsLab	976	24	3	66	100%	9	45%
6	19		0501S	ClsLab	976	24	3	63	95%	9	45%
7	19		502	ClsLab	1,124	24	2	40	91%	6	30%
8	19		0503N	ClsLab	966	24	3	66	100%	9	45%
9	19		0503S	ClsLab	966	24	3	66	100%	9	45%
10	19		504	ClsLab	1,100	24	3	42	78%	9	45%
11	19		0601N	ClsLab	1,048	28	2	26	93%	6	30%
12	19		0601S	ClsLab	1,048	28	2	20	71%	6	30%
13	19		708	ClsLab	1,592	32	1	8	100%	6	30%
14	8	Dow	420	ClsLab	1,878	15	4	50	77%	8	40%
15	8		610	ClsLab	890	26	2	31	55%	4	20%
16	8		641	ClsRm	2,923	250	3	295	84%	8	40%
17	8		642	ClsRm	1,601	84	1	69	92%	3	15%
18	8		707	ClsLab	1,198	24	2	29	73%	6	30%
19	8		711	ClsLab	937	16	3	22	37%	4	20%
20	7	EERC	100	ClsRm	1,307	82	1	44	88%	3	15%
21	7		103	ClsRm	2,396	151	2	157	98%	4	20%
22	7		214	ClsRm	983	65	12	75	31%	4	20%
23	7		216	ClsRm	551	36	2	6	20%	4	20%
24	7		218	ClsRm	683	45	2	46	72%	4	20%
25	7		226	ClsRm	683	46	1	22	73%	3	15%
26	7		227	ClsRm	551	36	1	9	113%	3	15%
27	7		229	ClsRm	1,048	65	1	15	107%	2	10%
28	7		313	ClsRm	571	36	2	7	28%	2	10%
29	7		316	ClsRm	823	60	2	16	53%	3	15%
30	7		328	ClsLab	1,140	24	2	31	86%	4	20%
31	7		330	ClsLab	1,558	42	1	10	71%	2	10%
32	7		622	ClsLab	983	16	4	45	83%	8	40%
33	7		722	ClsLab	978	30	4	43	68%	8	40%
34	7		738	ClsLab	1,001	18	1	8	27%	2	10%
35	7		827	ClsLab	983	16	3	29	69%	6	30%
36	15	Fisher	101	ClsRm	937	32	3	21	38%	9	45%
37	15		125	ClsRm	583	35	3	43	70%	7	35%
38	15		126	ClsRm	593	35	4	54	55%	9	45%
39	15		127	ClsRm	693	35	3	54	68%	7	35%
40	15		129	ClsRm	792	53	2	62	75%	6	30%
41	15		130	ClsRm	712	44	4	50	65%	8	40%
42	15		131	ClsRm	712	44	2	39	62%	5	25%
43	15		132	ClsRm	693	44	4	56	92%	7	35%
44	15		133	ClsRm	693	44	1	10	91%	2	10%
45	15		135	ClsRm	5,036	476	3	449	92%	6	30%
46	15		138	ClsRm	1,395	92	3	115	95%	5	25%
47	15		139	ClsRm	2,016	125	4	186	68%	8	40%
48	15		229	ClsLab	702	14	3	71	103%	6	30%
49	15		230	ClsRm	579	35	1	4	20%	2	10%
50	15		231	ClsRm	697	44	4	54	63%	8	40%
51	15		325	ClsRm	1,064	72	2	94	94%	7	35%
52	15		326	ClsRm	1,064	71	3	129	84%	9	45%
53	15		328	ClsRm	928	62	3	144	96%	9	45%
54	15		329	ClsRm	1,065	72	2	89	80%	8	40%
55	15		B003	ClsLab	689	14	1	12	50%	3	15%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 3:00 PM - 5:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
56	15		B020	ClsLab	941	27	4	104	100%	8	40%
57	15		B023	ClsLab	960	12	2	29	104%	4	20%
58	15		B024	ClsLab	812	24	2	18	129%	4	20%
59	100	GLRC	B003	ClsLab	723	13	1	11	55%	2	10%
60	14	Dillman	110	ClsLab	1,066	16	1	8	50%	2	10%
61	14		202	ClsRm	776	36	4	29	48%	6	30%
62	14		204	ClsRm	761	43	2	30	60%	4	20%
63	14		208	ClsLab	1,559	64	27	69	16%	6	30%
64	14		211	ClsLab	968	48	1	24	100%	2	10%
65	14		213	ClsLab	573	12	4	12	20%	4	20%
66	14		214	ClsRm	954	60	2	14	47%	3	15%
67	14		302	ClsLab	1,243	32	2	57	75%	4	20%
68	14		320	ClsRm	1,051	43	1	15	38%	2	10%
69	84	Meese	109	ClsRm	680	25	1	14	140%	2	10%
70	28	Rekhi	112	ClsLab	775	20	2	59	78%	4	20%
71	28		113	ClsLab	777	20	1	16	107%	2	10%
72	28		214	ClsRm	1,328	48	2	33	34%	5	25%
73	28		G005	ClsRm	1,253	54	14	102	31%	7	35%
74	28		G009	ClsRm	1,280	48	1	39	98%	2	10%
75	12	M&M Bldg	U113	ClsRm	1,069	63	2	29	58%	4	20%
76	12		U115	ClsRm	2,540	240	1	183	87%	1	5%
77	20	MEEM	111	ClsRm	1,429	96	2	77	81%	7	35%
78	20		112	ClsRm	1,652	115	2	115	57%	5	25%
79	20		120	ClsLab	2,630	72	4	186	69%	5	25%
80	20		202	ClsLab	951	16	5	47	73%	7	35%
81	20		302	ClsRm	1,129	48	3	79	69%	8	40%
82	20		303	ClsRm	1,131	48	2	39	57%	6	30%
83	20		305	ClsLab	1,175	16	2	17	71%	4	20%
84	20		402	ClsRm	1,265	48	3	46	52%	6	30%
85	20		403	ClsRm	1,131	48	2	4	10%	4	20%
86	20		405	ClsRm	607	40	4	47	53%	6	30%
87	20		406	ClsRm	1,130	40	2	54	68%	6	30%
88	20		502	ClsLab	928	16	1	15	94%	2	10%
89	20		0502A	ClsLab	712	16	1	14	100%	2	10%
90	20		505	ClsLab	1,588	16	1	13	87%	2	10%
91	20		701	ClsLab	867	16	1	11	79%	2	10%
92	20		1103	ClsLab	1,092	20	1	14	70%	3	15%
93	20		1106	ClsLab	1,064	24	3	61	102%	9	45%
94	20		1108	ClsLab	1,116	24	2	32	80%	5	25%
95	4	ROTC	100	ClsLab	3,385	30	7	84	24%	4	20%
96	4		101	ClsRm	1,273	47	1	10	20%	2	10%
97	10	Rozsa Ctr	120	ClsRm	1,448	60	2	30	29%	6	30%
98	10		208	ClsLab	1,790	50	3	82	30%	9	45%
99	24	SDC	237	ClsRm	789	48	1	3	30%	1	5%
100	18	Noblet	G002	ClsRm	1,768	125	1	51	106%	4	20%
101	11	Walker	109	ClsRm	792	36	2	59	104%	6	30%
102	11		0120A	ClsRm	904	30	2	40	100%	3	15%
103	11		134	ClsRm	1,173	40	1	35	100%	3	15%
104	11		138	ClsRm	296	1	1	5	20%	3	15%
105	11		210	ClsLab	1,426	40	1	13	130%	2	10%
106	11		211	ClsLab	731	15	1	12	150%	4	20%
107	11		212	ClsLab	404	15	1	7	58%	3	15%
Grand Totals:			Rooms: 107		121,054	5,279	292	5,548	65%	524	25%

Michigan Technological University
Room Utilization Reports
Fall 2022, Monday-Friday, 5:00 PM - 11:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
1	19	Chem-Sci	101	ClsRm	1,184	66	1	27	68%	3	12%
2	19		106	ClsRm	565	30	1	6	60%	3	12%
3	19		108	ClsLab	1,162	44	12	32	15%	1	4%
4	8	Dow	641	ClsRm	2,923	250	25	124	23%	3	12%
5	8		642	ClsRm	1,601	84	3	119	98%	9	36%
6	8		711	ClsLab	937	16	1	8	40%	1	4%
7	7	EERC	100	ClsRm	1,307	82	24	86	22%	2	8%
8	7		218	ClsRm	683	45	1	22	73%	1	4%
9	7		622	ClsLab	983	16	2	16	59%	4	16%
10	7		722	ClsLab	978	30	1	4	27%	2	8%
11	7		827	ClsLab	983	16	3	30	65%	8	32%
12	15	Fisher	129	ClsRm	792	53	1	33	83%	3	12%
13	15		139	ClsRm	2,016	125	12	88	33%	1	4%
14	15		328	ClsRm	928	62	1	38	95%	3	12%
15	14	Dillman	204	ClsRm	761	43	1	31	78%	3	12%
16	14		208	ClsLab	1,559	64	12	34	14%	1	4%
17	14		214	ClsRm	954	60	1	20	67%	2	8%
18	28	Rekhi	112	ClsLab	775	20	2	62	84%	4	16%
19	28		113	ClsLab	777	20	2	60	86%	3	12%
20	28		214	ClsRm	1,328	48	3	37	54%	6	24%
21	20	MEEM	112	ClsRm	1,652	115	1	97	97%	3	12%
22	20		120	ClsLab	2,630	72	1	54	90%	3	12%
23	20		202	ClsLab	951	16	1	15	94%	2	8%
24	20		302	ClsRm	1,129	48	12	34	17%	2	8%
25	20		402	ClsRm	1,265	48	12	22	18%	1	4%
26	20		403	ClsRm	1,131	48	1	31	89%	3	12%
27	20		405	ClsRm	607	40	1	15	94%	2	8%
28	20		502	ClsLab	928	16	2	6	43%	2	8%
29	20		1101	ClsLab	1,224	19	4	72	100%	8	32%
30	20		1108	ClsLab	1,116	24	1	19	79%	2	8%
31	10	Rozsa Ctr	208	ClsLab	1,790	50	2	32	32%	6	24%
32	24	SDC	237	ClsRm	789	48	1	6	20%	2	8%
33	18	Noblet	143	ClsRm	616	40	1	6	30%	3	12%
34	18		144	ClsRm	1,689	26	1	55	131%	1	4%
Grand Totals:			Rooms: 34		40,713	1,784	150	1,341	43%	103	13%

Michigan Technological University
Room Utilization Reports
Fall 2022, Saturday-Sunday, All Hours

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs
1	8	Dow	610	ClsLab	890	26	1	22	55%	2
	Grand Totals:		Rooms: 1		890	26	1	22	55%	2

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
1	19	Chem-Sci	101	ClsRm	1,184	66	2	106	92%	6	30%
2	19		103	ClsLab	1,308	20	1	9	50%	3	15%
3	19		211	ClsRm	1,155	55	2	56	79%	5	25%
4	19		215	ClsRm	584	30	2	14	47%	3	15%
5	19		502	ClsLab	1,124	24	1	12	100%	3	15%
6	19		0601N	ClsLab	1,048	28	2	28	88%	8	40%
7	19		B002	ClsRm	1,167	36	1	17	43%	3	15%
8	19		B005	ClsLab	2,473	24	2	79	90%	12	60%
9	8	Dow	610	ClsLab	890	26	3	23	23%	5	25%
10	8		641	ClsRm	2,923	250	6	478	64%	10	50%
11	8		642	ClsRm	1,601	84	4	185	70%	11	55%
12	8		711	ClsLab	937	16	1	21	105%	3	15%
13	7	EERC	100	ClsRm	1,307	82	1	50	63%	3	15%
14	7		103	ClsRm	2,396	151	2	201	91%	6	30%
15	7		214	ClsRm	983	65	4	120	85%	8	40%
16	7		216	ClsRm	551	36	3	20	50%	3	15%
17	7		218	ClsRm	683	45	1	6	120%	3	15%
18	7		226	ClsRm	683	46	1	36	95%	3	15%
19	7		227	ClsRm	551	36	1	31	103%	3	15%
20	7		229	ClsRm	1,048	65	1	61	94%	3	15%
21	7		313	ClsRm	571	36	1	14	64%	3	15%
22	7		314	ClsRm	553	36	1	21	84%	3	15%
23	7		315	ClsRm	553	36	3	30	56%	5	25%
24	7		316	ClsRm	823	60	1	25	104%	1	5%
25	7		328	ClsLab	1,140	24	2	31	103%	4	20%
26	7		330	ClsLab	1,558	42	1	16	100%	2	10%
27	7		421	ClsLab	844	24	1	15	75%	1	5%
28	7		427	ClsLab	1,000	24	3	29	76%	4	20%
29	7		430	ClsLab	685	2	2	2	25%	2	10%
30	7		431	ClsLab	1,206	16	3	61	102%	6	30%
31	7		622	ClsLab	983	16	2	30	100%	4	20%
32	15	Fisher	101	ClsRm	937	32	4	37	55%	6	30%
33	15		125	ClsRm	583	35	3	50	67%	7	35%
34	15		126	ClsRm	593	35	2	14	28%	6	30%
35	15		127	ClsRm	693	35	1	20	100%	3	15%
36	15		129	ClsRm	792	53	1	49	102%	3	15%
37	15		130	ClsRm	712	44	3	69	69%	10	50%
38	15		131	ClsRm	712	44	3	42	53%	8	40%
39	15		132	ClsRm	693	44	1	43	98%	3	15%
40	15		133	ClsRm	693	44	2	45	64%	5	25%
41	15		135	ClsRm	5,036	476	2	199	66%	4	20%
42	15		138	ClsRm	1,395	92	2	173	99%	6	30%
43	15		139	ClsRm	2,016	125	3	243	87%	9	45%
44	15		230	ClsRm	579	35	3	22	40%	6	30%
45	15		231	ClsRm	697	44	3	18	28%	4	20%
46	15		325	ClsRm	1,064	72	3	70	68%	9	45%
47	15		326	ClsRm	1,064	71	3	107	89%	9	45%
48	15		0327B	ClsRm	445	27	3	24	35%	9	45%
49	15		328	ClsRm	928	62	3	135	91%	10	50%
50	15		329	ClsRm	1,065	72	3	132	94%	9	45%
51	100	GLRC	102	ClsLab	1,374	28	1	16	107%	3	15%
52	14	Dillman	101	ClsLab	2,187	60	1	50	83%	3	15%
53	14		202	ClsRm	776	36	3	49	77%	5	25%
54	14		203	ClsLab	863	26	2	21	105%	4	20%
55	14		204	ClsRm	761	43	4	70	83%	8	40%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
56	14		208	ClsLab	1,559	64	19	119	44%	9	45%
57	14		211	ClsLab	968	48	2	29	73%	4	20%
58	14		214	ClsRm	954	60	3	88	53%	6	30%
59	14		302	ClsLab	1,243	32	2	54	84%	4	20%
60	14		320	ClsRm	1,051	43	3	62	97%	4	20%
61	14		B003	ClsLab	988	16	1	16	107%	3	15%
62	14		B008	ClsLab	1,495	15	1	15	100%	3	15%
63	84	Meese	109	ClsRm	680	25	1	16	89%	3	15%
64	84		110	ClsRm	564	25	1	24	96%	3	15%
65	28	Rekhi	112	ClsLab	775	20	1	24	60%	2	10%
66	28		113	ClsLab	777	20	3	75	82%	6	30%
67	28		214	ClsRm	1,328	48	2	15	43%	3	15%
68	28		G005	ClsRm	1,253	54	1	32	107%	3	15%
69	28		G009	ClsRm	1,280	48	2	48	66%	5	25%
70	12	M&M Bldg	U111	ClsRm	723	30	1	14	78%	3	15%
71	12		U113	ClsRm	1,069	63	1	22	69%	4	20%
72	12		U115	ClsRm	2,540	240	3	136	72%	4	20%
73	12		U205	ClsRm	421	26	1	5	25%	3	15%
74	12		U209	ClsLab	664	7	1	8	62%	2	10%
75	20	MEEM	111	ClsRm	1,429	96	1	47	59%	4	20%
76	20		112	ClsRm	1,652	115	3	202	70%	7	35%
77	20		120	ClsLab	2,630	72	4	118	54%	7	35%
78	20		202	ClsLab	951	16	3	27	68%	4	20%
79	20		302	ClsRm	1,129	48	1	41	93%	3	15%
80	20		303	ClsRm	1,131	48	1	43	108%	3	15%
81	20		305	ClsLab	1,175	16	3	32	67%	6	30%
82	20		402	ClsRm	1,265	48	2	62	78%	6	30%
83	20		403	ClsRm	1,131	48	1	29	97%	3	15%
84	20		405	ClsRm	607	40	1	23	96%	1	5%
85	20		406	ClsRm	1,130	40	3	38	48%	6	30%
86	20		601	ClsLab	1,980	16	2	14	70%	4	20%
87	20		701	ClsLab	867	16	1	13	87%	2	10%
88	20		1101	ClsLab	1,224	19	2	34	94%	4	20%
89	20		1103	ClsLab	1,092	20	1	16	80%	3	15%
90	4	ROTC	101	ClsRm	1,273	47	2	12	40%	1	5%
91	10	Rozsa Ctr	208	ClsLab	1,790	50	1	11	110%	3	15%
92	24	SDC	237	ClsRm	789	48	2	28	51%	6	30%
93	18	Noblet	108	ClsLab	692	24	4	26	47%	6	30%
94	18		139	ClsLab	618	18	2	26	108%	6	30%
95	18		143	ClsRm	616	40	2	21	84%	4	20%
96	18		144	ClsRm	1,689	26	3	58	83%	9	45%
97	18		146	ClsLab	997	24	2	10	33%	4	20%
98	18		G002	ClsRm	1,768	125	2	142	90%	6	30%
99	18		G029	ClsLab	1,104	32	2	19	56%	3	15%
100	17	Library	242	ClsLab	1,192	25	1	16	160%	3	15%
101	11	Walker	109	ClsRm	792	36	2	27	54%	6	30%
102	11		0120A	ClsRm	904	30	2	50	116%	6	30%
103	11		134	ClsRm	1,173	40	1	35	100%	3	15%
104	11		138	ClsRm	296	1	1	7	58%	3	15%
105	11		143	ClsRm	647	25	1	20	100%	3	15%
106	11		144	ClsRm	634	25	2	31	78%	6	30%
107	11		202	ClsLab	1,009	28	1	14	100%	4	20%
108	11		204	ClsLab	745	5	1	15	100%	3	15%
109	11		210	ClsLab	1,426	40	1	17	85%	3	15%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 8:00 AM - 10:00 AM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
	Grand Totals:		Rooms: 109		121,049	5,367	233	5,651	73%	513	24%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
1	5	Acad Ofc	201	ClsRm	610	10	5	89	66%	13	52%
2	19	Chem-Sci	101	ClsRm	1,184	66	5	233	89%	15	60%
3	19		102	ClsRm	1,162	66	2	60	75%	6	24%
4	19		103	ClsLab	1,308	20	3	57	92%	7	28%
5	19		211	ClsRm	1,155	55	9	181	68%	24	96%
6	19		215	ClsRm	584	30	5	67	59%	8	32%
7	19		0501N	ClsLab	976	24	2	48	100%	6	24%
8	19		0501S	ClsLab	976	24	2	48	100%	6	24%
9	19		502	ClsLab	1,124	24	2	24	67%	6	24%
10	19		0503N	ClsLab	966	24	2	36	95%	6	24%
11	19		0503S	ClsLab	966	24	2	35	92%	6	24%
12	19		504	ClsLab	1,100	24	1	16	89%	3	12%
13	19		0601N	ClsLab	1,048	28	2	27	84%	8	32%
14	19		B002	ClsRm	1,167	36	5	81	65%	12	48%
15	8	Dow	106	ClsLab	1,454	16	3	39	87%	15	60%
16	8		420	ClsLab	1,878	15	8	24	30%	3	12%
17	8		610	ClsLab	890	26	2	28	35%	5	20%
18	8		641	ClsRm	2,923	250	7	733	69%	19	76%
19	8		642	ClsRm	1,601	84	6	364	83%	19	76%
20	8		707	ClsLab	1,198	24	1	28	93%	3	12%
21	8		709	ClsLab	744	23	1	10	50%	2	8%
22	8		710	ClsLab	1,287	24	5	60	100%	9	36%
23	8		711	ClsLab	937	16	5	50	57%	11	44%
24	7	EERC	100	ClsRm	1,307	82	8	268	76%	17	68%
25	7		103	ClsRm	2,396	151	6	596	90%	16	64%
26	7		214	ClsRm	983	65	6	188	56%	16	64%
27	7		216	ClsRm	551	36	9	115	68%	13	52%
28	7		218	ClsRm	683	45	9	96	54%	17	68%
29	7		226	ClsRm	683	46	7	130	68%	17	68%
30	7		227	ClsRm	551	36	13	148	67%	19	76%
31	7		229	ClsRm	1,048	65	8	285	72%	21	84%
32	7		313	ClsRm	571	36	4	33	52%	11	44%
33	7		314	ClsRm	553	36	6	79	58%	12	48%
34	7		315	ClsRm	553	36	6	88	71%	14	56%
35	7		316	ClsRm	823	60	5	197	92%	14	56%
36	7		328	ClsLab	1,140	24	4	81	95%	8	32%
37	7		330	ClsLab	1,558	42	7	180	97%	14	56%
38	7		421	ClsLab	844	24	5	74	84%	10	40%
39	7		427	ClsLab	1,000	24	6	62	84%	9	36%
40	7		430	ClsLab	685	2	4	11	69%	4	16%
41	7		431	ClsLab	1,206	16	4	57	68%	8	32%
42	7		622	ClsLab	983	16	7	105	100%	14	56%
43	7		722	ClsLab	978	30	4	56	93%	8	32%
44	7		738	ClsLab	1,001	18	3	87	97%	6	24%
45	7		827	ClsLab	983	16	4	54	90%	8	32%
46	15	Fisher	101	ClsRm	937	32	7	50	46%	18	72%
47	15		125	ClsRm	583	35	6	92	63%	15	60%
48	15		126	ClsRm	593	35	11	121	67%	19	76%
49	15		127	ClsRm	693	35	8	91	52%	21	84%
50	15		129	ClsRm	792	53	8	322	93%	23	92%
51	15		130	ClsRm	712	44	10	172	68%	20	80%
52	15		131	ClsRm	712	44	7	214	77%	20	80%
53	15		132	ClsRm	693	44	7	105	60%	18	72%
54	15		133	ClsRm	693	44	10	181	71%	23	92%
55	15		135	ClsRm	5,036	476	7	1,656	80%	18	72%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
56	15		138	ClsRm	1,395	92	8	528	93%	19	76%
57	15		139	ClsRm	2,016	125	7	613	88%	19	76%
58	15		229	ClsLab	702	14	12	275	100%	24	96%
59	15		230	ClsRm	579	35	9	174	68%	23	92%
60	15		231	ClsRm	697	44	7	176	84%	21	84%
61	15		325	ClsRm	1,064	72	7	261	94%	21	84%
62	15		326	ClsRm	1,064	71	8	347	83%	24	96%
63	15		0327B	ClsRm	445	27	8	68	50%	14	56%
64	15		328	ClsRm	928	62	8	290	79%	23	92%
65	15		329	ClsRm	1,065	72	6	310	96%	20	80%
66	15		330	ClsLab	1,065	24	7	67	51%	14	56%
67	15		B003	ClsLab	689	14	1	12	100%	3	12%
68	15		B020	ClsLab	941	27	9	181	91%	18	72%
69	15		B023	ClsLab	960	12	4	58	100%	8	32%
70	100	GLRC	102	ClsLab	1,374	28	2	30	100%	6	24%
71	100		B003	ClsLab	723	13	3	14	23%	7	28%
72	14	Dillman	101	ClsLab	2,187	60	10	173	74%	15	60%
73	14		110	ClsLab	1,066	16	3	37	82%	6	24%
74	14		202	ClsRm	776	36	7	105	53%	19	76%
75	14		203	ClsLab	863	26	4	48	80%	5	20%
76	14		204	ClsRm	761	43	7	73	51%	10	40%
77	14		208	ClsLab	1,559	64	11	217	82%	14	56%
78	14		211	ClsLab	968	48	6	120	76%	11	44%
79	14		213	ClsLab	573	12	2	11	44%	4	16%
80	14		214	ClsRm	954	60	9	320	89%	21	84%
81	14		302	ClsLab	1,243	32	4	76	82%	8	32%
82	14		320	ClsRm	1,051	43	10	123	59%	14	56%
83	14		B003	ClsLab	988	16	3	43	96%	9	36%
84	14		B008	ClsLab	1,495	15	2	29	97%	6	24%
85	84	Meese	109	ClsRm	680	25	2	30	86%	6	24%
86	84		110	ClsRm	564	25	3	26	72%	6	24%
87	28	Rekhi	112	ClsLab	775	20	2	72	100%	4	16%
88	28		113	ClsLab	777	20	5	109	76%	8	32%
89	28		117	ClsLab	1,153	18	2	4	11%	4	16%
90	28		214	ClsRm	1,328	48	6	161	77%	17	68%
91	28		G005	ClsRm	1,253	54	5	134	100%	11	44%
92	28		G009	ClsRm	1,280	48	8	283	81%	22	88%
93	12	M&M Bldg	U106	ClsLab	347	5	8	32	40%	3	12%
94	12		U113	ClsRm	1,069	63	9	224	76%	19	76%
95	12		U115	ClsRm	2,540	240	7	539	80%	18	72%
96	12		U205	ClsRm	421	26	3	23	43%	7	28%
97	12		U209	ClsLab	664	7	4	28	61%	8	32%
98	20	MEEM	111	ClsRm	1,429	96	9	428	104%	19	76%
99	20		112	ClsRm	1,652	115	7	444	92%	21	84%
100	20		120	ClsLab	2,630	72	8	179	81%	11	44%
101	20		202	ClsLab	951	16	2	25	78%	4	16%
102	20		302	ClsRm	1,129	48	9	215	73%	22	88%
103	20		303	ClsRm	1,131	48	6	123	73%	20	80%
104	20		305	ClsLab	1,175	16	8	76	59%	16	64%
105	20		402	ClsRm	1,265	48	8	169	75%	20	80%
106	20		403	ClsRm	1,131	48	8	149	81%	21	84%
107	20		405	ClsRm	607	40	11	162	70%	12	48%
108	20		406	ClsRm	1,130	40	8	152	69%	17	68%
109	20		502	ClsLab	928	16	6	40	98%	6	24%
110	20		505	ClsLab	1,588	16	9	128	89%	18	72%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 10:00 AM - 3:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
111	20		601	ClsLab	1,980	16	4	31	78%	8	32%
112	20		701	ClsLab	867	16	2	18	60%	4	16%
113	20		1101	ClsLab	1,224	19	3	40	74%	6	24%
114	20		1103	ClsLab	1,092	20	2	36	90%	5	20%
115	20		1106	ClsLab	1,064	24	1	21	88%	3	12%
116	4	ROTC	100	ClsLab	3,385	30	1	8	40%	3	12%
117	4		101	ClsRm	1,273	47	5	33	37%	3	12%
118	10	Rozsa Ctr	120	ClsRm	1,448	60	6	120	86%	18	72%
119	10		208	ClsLab	1,790	50	4	36	57%	12	48%
120	24	SDC	237	ClsRm	789	48	5	40	33%	8	32%
121	24		238	ClsRm	705	40	5	44	34%	10	40%
122	18	Noblet	108	ClsLab	692	24	5	57	61%	11	44%
123	18		139	ClsLab	618	18	6	91	98%	16	64%
124	18		143	ClsRm	616	40	8	127	73%	20	80%
125	18		144	ClsRm	1,689	26	11	230	70%	17	68%
126	18		146	ClsLab	997	24	7	149	97%	19	76%
127	18		157	ClsLab	954	24	1	7	35%	3	12%
128	18		G002	ClsRm	1,768	125	8	384	87%	16	64%
129	18		G029	ClsLab	1,104	32	4	47	63%	8	32%
130	17	Library	242	ClsLab	1,192	25	7	46	46%	9	36%
131	11	Walker	109	ClsRm	792	36	6	138	83%	18	72%
132	11		0120A	ClsRm	904	30	8	179	105%	20	80%
133	11		134	ClsRm	1,173	40	8	213	98%	21	84%
134	11		138	ClsRm	296	1	3	15	48%	9	36%
135	11		143	ClsRm	647	25	5	95	83%	15	60%
136	11		144	ClsRm	634	25	4	69	81%	12	48%
137	11		202	ClsLab	1,009	28	1	13	108%	4	16%
138	11		204	ClsLab	745	5	1	6	100%	3	12%
139	11		210	ClsLab	1,426	40	5	93	93%	15	60%
140	11		211	ClsLab	731	15	3	20	65%	12	48%
141	11		212	ClsLab	404	15	2	14	56%	6	24%
Grand Totals:			Rooms: 141		153,558	6,070	789	19,486	78%	1,763	51%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 3:00 PM - 5:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
1	19	Chem-Sci	101	ClsRm	1,184	66	14	66	25%	6	30%
2	19		103	ClsLab	1,308	20	2	43	98%	4	20%
3	19		211	ClsRm	1,155	55	17	84	25%	7	35%
4	19		215	ClsRm	584	30	3	15	27%	6	30%
5	19		0501N	ClsLab	976	24	2	48	100%	6	30%
6	19		0501S	ClsLab	976	24	2	48	100%	6	30%
7	19		0503N	ClsLab	966	24	2	32	89%	6	30%
8	19		0503S	ClsLab	966	24	2	26	72%	6	30%
9	19		504	ClsLab	1,100	24	2	22	52%	6	30%
10	19		708	ClsLab	1,592	32	1	14	64%	6	30%
11	19		B002	ClsRm	1,167	36	1	23	77%	3	15%
12	8	Dow	641	ClsRm	2,923	250	4	436	95%	9	45%
13	8		642	ClsRm	1,601	84	1	23	92%	3	15%
14	8		710	ClsLab	1,287	24	2	21	105%	4	20%
15	7	EERC	100	ClsRm	1,307	82	13	71	43%	3	15%
16	7		103	ClsRm	2,396	151	1	59	98%	2	10%
17	7		216	ClsRm	551	36	2	23	46%	5	25%
18	7		218	ClsRm	683	45	3	55	86%	6	30%
19	7		226	ClsRm	683	46	2	16	55%	3	15%
20	7		227	ClsRm	551	36	2	6	20%	2	10%
21	7		229	ClsRm	1,048	65	2	93	78%	4	20%
22	7		313	ClsRm	571	36	1	3	30%	2	10%
23	7		314	ClsRm	553	36	1	17	106%	1	5%
24	7		316	ClsRm	823	60	1	13	65%	3	15%
25	7		328	ClsLab	1,140	24	1	15	100%	2	10%
26	7		330	ClsLab	1,558	42	1	19	112%	2	10%
27	7		421	ClsLab	844	24	2	6	20%	2	10%
28	7		427	ClsLab	1,000	24	1	7	39%	2	10%
29	7		431	ClsLab	1,206	16	1	22	110%	2	10%
30	7		622	ClsLab	983	16	4	60	100%	8	40%
31	7		722	ClsLab	978	30	3	41	89%	6	30%
32	7		738	ClsLab	1,001	18	2	57	95%	4	20%
33	7		827	ClsLab	983	16	3	36	80%	6	30%
34	15	Fisher	101	ClsRm	937	32	1	29	97%	3	15%
35	15		125	ClsRm	583	35	2	21	72%	3	15%
36	15		126	ClsRm	593	35	3	33	77%	4	20%
37	15		127	ClsRm	693	35	3	60	66%	9	45%
38	15		129	ClsRm	792	53	1	37	84%	3	15%
39	15		130	ClsRm	712	44	3	49	54%	7	35%
40	15		131	ClsRm	712	44	2	18	40%	4	20%
41	15		132	ClsRm	693	44	3	45	43%	5	25%
42	15		133	ClsRm	693	44	4	86	91%	7	35%
43	15		138	ClsRm	1,395	92	2	168	96%	6	30%
44	15		139	ClsRm	2,016	125	2	112	86%	4	20%
45	15		229	ClsLab	702	14	3	72	104%	6	30%
46	15		230	ClsRm	579	35	2	41	75%	5	25%
47	15		231	ClsRm	697	44	2	73	97%	6	30%
48	15		325	ClsRm	1,064	72	2	75	99%	7	35%
49	15		326	ClsRm	1,064	71	2	85	91%	6	30%
50	15		328	ClsRm	928	62	3	88	69%	7	35%
51	15		329	ClsRm	1,065	72	4	72	48%	9	45%
52	15		B003	ClsLab	689	14	1	11	92%	3	15%
53	15		B020	ClsLab	941	27	3	36	82%	6	30%
54	15		B023	ClsLab	960	12	2	14	100%	4	20%
55	14	Dillman	202	ClsRm	776	36	2	29	73%	2	10%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 3:00 PM - 5:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	20 Hr Utilization
56	14		204	ClsRm	761	43	1	5	50%	3	15%
57	14		208	ClsLab	1,559	64	2	44	92%	2	10%
58	14		214	ClsRm	954	60	1	35	97%	2	10%
59	14		302	ClsLab	1,243	32	2	44	96%	4	20%
60	14		320	ClsRm	1,051	43	2	34	71%	2	10%
61	84	Meese	110	ClsRm	564	25	2	27	68%	6	30%
62	28	Rekhi	117	ClsLab	1,153	18	2	10	36%	6	30%
63	28		214	ClsRm	1,328	48	2	9	9%	4	20%
64	28		G005	ClsRm	1,253	54	13	66	24%	7	35%
65	28		G009	ClsRm	1,280	48	2	35	40%	6	30%
66	12	M&M Bldg	U113	ClsRm	1,069	63	1	31	78%	3	15%
67	12		U115	ClsRm	2,540	240	1	100	100%	3	15%
68	20	MEEM	111	ClsRm	1,429	96	4	124	78%	9	45%
69	20		112	ClsRm	1,652	115	4	191	65%	7	35%
70	20		120	ClsLab	2,630	72	2	90	75%	3	15%
71	20		202	ClsLab	951	16	2	15	63%	4	20%
72	20		302	ClsRm	1,129	48	2	46	77%	6	30%
73	20		303	ClsRm	1,131	48	2	23	42%	5	25%
74	20		305	ClsLab	1,175	16	1	13	81%	2	10%
75	20		402	ClsRm	1,265	48	2	49	68%	5	25%
76	20		403	ClsRm	1,131	48	1	42	105%	3	15%
77	20		405	ClsRm	607	40	1	22	92%	1	5%
78	20		406	ClsRm	1,130	40	2	51	170%	5	25%
79	20		502	ClsLab	928	16	2	13	100%	2	10%
80	20		505	ClsLab	1,588	16	3	38	79%	6	30%
81	20		701	ClsLab	867	16	1	11	73%	2	10%
82	20		1101	ClsLab	1,224	19	1	18	100%	2	10%
83	20		1106	ClsLab	1,064	24	2	44	92%	6	30%
84	20		1108	ClsLab	1,116	24	3	61	102%	9	45%
85	4	ROTC	100	ClsLab	3,385	30	6	64	21%	4	20%
86	4		101	ClsRm	1,273	47	1	9	18%	2	10%
87	4		201	ClsRm	1,362	30	1	12	24%	2	10%
88	10	Rozsa Ctr	120	ClsRm	1,448	60	2	29	39%	6	30%
89	10		208	ClsLab	1,790	50	4	113	35%	10	50%
90	18	Noblet	143	ClsRm	616	40	1	13	65%	2	10%
91	18		G002	ClsRm	1,768	125	2	126	70%	5	25%
92	18		G029	ClsLab	1,104	32	4	6	10%	3	15%
93	17	Library	242	ClsLab	1,192	25	2	12	48%	1	5%
94	11	Walker	109	ClsRm	792	36	2	60	105%	6	30%
95	11		0120A	ClsRm	904	30	4	70	82%	9	45%
96	11		134	ClsRm	1,173	40	1	22	88%	3	15%
97	11		143	ClsRm	647	25	3	56	93%	9	45%
98	11		144	ClsRm	634	25	1	13	65%	3	15%
99	11		210	ClsLab	1,426	40	1	26	104%	2	10%
	Grand Totals:		Rooms: 99		111,214	4,637	254	4,696	65%	451	23%

Michigan Technological University
Room Utilization Reports
Spring 2023, Monday-Friday, 5:00 PM - 11:00 PM

#	Building No.	Building	Room	Room Use	Sqft	Seats	Classes	Students	Classroom Utilization	Credit Hrs	25 Hr Utilization
1	5	Acad Ofc	201	ClsRm	610	10	2	24	57%	4	16%
2	19	Chem-Sci	102	ClsRm	1,162	66	1	35	88%	3	12%
3	19		0501N	ClsLab	976	24	1	23	96%	3	12%
4	19		0501S	ClsLab	976	24	1	19	79%	3	12%
5	19		0503N	ClsLab	966	24	1	17	94%	3	12%
6	19		0503S	ClsLab	966	24	1	14	78%	3	12%
7	19		B002	ClsRm	1,167	36	1	10	25%	3	12%
8	8	Dow	610	ClsLab	890	26	1	13	65%	3	12%
9	8		641	ClsRm	2,923	250	24	69	16%	2	8%
10	8		642	ClsRm	1,601	84	14	124	41%	7	28%
11	7	EERC	214	ClsRm	983	65	1	25	63%	3	12%
12	7		227	ClsRm	551	36	1	26	100%	1	4%
13	7		330	ClsLab	1,558	42	12	35	16%	1	4%
14	7		622	ClsLab	983	16	3	41	91%	6	24%
15	7		722	ClsLab	978	30	2	18	53%	4	16%
16	7		738	ClsLab	1,001	18	1	8	27%	2	8%
17	7		827	ClsLab	983	16	3	39	83%	8	32%
18	15	Fisher	127	ClsRm	693	35	1	14	56%	2	8%
19	15		129	ClsRm	792	53	1	34	85%	3	12%
20	15		138	ClsRm	1,395	92	1	64	86%	3	12%
21	15		139	ClsRm	2,016	125	13	177	53%	4	16%
22	15		325	ClsRm	1,064	72	1	51	78%	3	12%
23	14	Dillman	101	ClsLab	2,187	60	1	16	40%	3	12%
24	14		204	ClsRm	761	43	1	29	85%	3	12%
25	14		208	ClsLab	1,559	64	12	29	13%	1	4%
26	14		214	ClsRm	954	60	1	21	53%	2	8%
27	14		320	ClsRm	1,051	43	1	10	100%	2	8%
28	28	Rekhi	112	ClsLab	775	20	1	37	103%	2	8%
29	28		113	ClsLab	777	20	1	35	97%	2	8%
30	28		117	ClsLab	1,153	18	1	4	40%	2	8%
31	28		214	ClsRm	1,328	48	1	18	45%	3	12%
32	28		G005	ClsRm	1,253	54	1	10	50%	3	12%
33	28		G009	ClsRm	1,280	48	1	21	62%	3	12%
34	20	MEEM	302	ClsRm	1,129	48	24	56	13%	3	12%
35	20		502	ClsLab	928	16	3	27	113%	4	16%
36	20		1101	ClsLab	1,224	19	2	27	75%	4	16%
37	20		1106	ClsLab	1,064	24	1	19	79%	3	12%
38	20		1108	ClsLab	1,116	24	1	21	105%	3	12%
39	4	ROTC	100	ClsLab	3,385	30	1	4	8%	2	8%
40	10	Rozsa Ctr	208	ClsLab	1,790	50	2	24	24%	6	24%
41	18	Noblet	139	ClsLab	618	18	3	48	100%	9	36%
42	18		144	ClsRm	1,689	26	1	55	92%	1	4%
43	11	Walker	134	ClsRm	1,173	40	1	32	91%	3	12%
Grand Totals:			Rooms: 43		52,428	1,941	148	1,423	44%	138	13%

Michigan Technological University
Assignable Area by College and Department
Fall 2023

College	Department	Assignable Area
Assoc Provost Undergrad Education	**Pavlis Honors College**	**10,704**
College of Business	**College of Business**	**10,911**
College Of Engineering	Biomedical Engineering	14,601
	Chemical Engineering	40,745
	Civil, Environ & Geospatial Engrg	69,244
	College of Engineering	5,098
	Electrical and Computer Engineering	50,440
	Engineering Fundamentals	3,672
	Geological & Mining Eng & Sciences	20,498
	Manufacturing & Mech Eng Technology	13,923
	Materials Science and Engineering	55,320
	Mechanical Engrg-Engrg Mechanics	68,425
	Total College of Engineering	**341,966**
College Forest Resources & Envr Sci	College Forest Resources & Envr Sci	61,329
	Ford Center	66,978
	Total College of Forest Resources & Envir Sci	**128,307**
College Of Science & Arts	Aerospace Studies (Air Force ROTC)	2,207
	Biological Sciences	44,775
	Chemistry	43,213
	Cognitive & Learning Sciences	9,563
	College of Sciences & Arts	1,049
	Humanities	17,183
	Kinesiology/Integrative Physiology	9,916
	Mathematical Sciences	12,242
	Military Science (Army ROTC)	5,399
	Physics	28,909
	Social Sciences	16,102
	Visual & Performing Arts*	57,266
	Total College of Sciences & Arts	**247,824**
College of Computing	**College of Computing**	**25,602**
		765,314

*Note: Visual & Performing Arts includes the Rozsa Ctr for Performing Arts.

**Note: Data as of 9/13/2023

Michigan Technological University
FY24 Statement of Values

Bldg No.	Building Name	Address	City	State	Zip	Buiding	Contents	Library Collections	Total Values
1	Administration Building	1400 Townsend Dr	Houghton	MI	49931	13,179,455	3,071,492	-	16,250,947
2	Electrical Substation	1400 Townsend Dr	Houghton	MI	49931	660,247	1,287,204	-	1,947,450
3	Michigan Tech Lakeshore Center	600 E Lakeshore Dr	Houghton	MI	49931	9,155,068	614,299	-	9,769,366
4	ROTC Building	1400 Townsend Dr	Houghton	MI	49931	7,180,000	26,835	-	7,206,835
5	Academic Offices Building	1400 Townsend Dr	Houghton	MI	49931	3,760,909	719,163	-	4,480,071
6	Annex Building	1400 Townsend Dr	Houghton	MI	49931	1,293,369	69,911	-	1,363,280
7	Electrical Energy Resources Center	1400 Townsend Dr	Houghton	MI	49931	35,709,892	11,900,790	-	47,610,682
8	DOW Environmental Sciences & Engineering Building	1400 Townsend Dr	Houghton	MI	49931	55,530,655	4,914,386	-	60,445,040
9	Alumni House	1400 Townsend Dr	Houghton	MI	49931	990,501	154,568	-	1,145,069
10	Rozsa Performing Arts & Educ	1400 Townsend Dr	Houghton	MI	49931	27,866,656	1,429,692	-	29,296,348
11	Walker - Arts & Humanities	1400 Townsend Dr	Houghton	MI	49931	15,492,940	787,432	-	16,280,372
12	Minerals & Materials Engr Bldg	1400 Townsend Dr	Houghton	MI	49931	60,198,194	10,504,818	-	70,703,011
13	Center for Diversity and Inclusion	1400 Townsend Dr	Houghton	MI	49931	876,222	133,446	-	1,009,668
14	Grover C. Dillman Hall	1400 Townsend Dr	Houghton	MI	49931	15,753,771	3,437,073	-	19,190,844
15	Fisher Hall	1400 Townsend Dr	Houghton	MI	49931	35,062,000	3,071,492	-	38,133,492
16	Public Safety & Police Services Building	206 MacInnes Dr	Houghton	MI	49931	117,914	49,144	-	167,058
17	J. Robert Van Pelt and John and Ruanne Opie Library	1400 Townsend Dr	Houghton	MI	49931	44,340,000	1,812,089	35,000,000	81,152,089
18	U.J.Noblet Forestry Building	1400 Townsend Dr	Houghton	MI	49931	15,188,650	714,845	-	15,903,495
18	U.J.Noblet Forestry Building	1400 Townsend Dr	Houghton	MI	49931	9,540,183	2,567,440	-	12,107,623
19	Chemical Sciences & Engineering Building	1400 Townsend Dr	Houghton	MI	49931	38,424,282	4,914,386	-	43,338,668
20	R. L. Smith (MEEM) Building	1400 Townsend Dr	Houghton	MI	49931	36,096,411	7,371,578	-	43,467,989
24	Student Development Complex	600 Macinnes Dr	Houghton	MI	49931	53,361,680	4,884,053	-	58,245,733
25	Kearly Stadium Press Box	1502 E Sharon Ave	Houghton	MI	49931	1,248,209	65,521	-	1,313,729
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	185,845	73,831	-	259,676
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	10,181	-	-	10,181
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	59,051	6,535	-	65,586
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	172,232	50,830	-	223,062
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	2,909	-	-	2,909
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	21,870	-	-	21,870
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	16,403	-	-	16,403
27	Ford Center and Forest	21235 Alberta Ave. #2	L'Anse	MI	49946	256,053	66,119	-	322,172
28	Kanwal and Ann Rekhi Hall	1400 Townsend Dr	Houghton	MI	49931	18,689,174	3,673,534	-	22,362,709
30	Little Huskies Child Care	500 MacInnes Dr	Houghton	MI	49931	1,012,000	63,409	-	1,075,409
31	Douglass Houghton Hall	1700 Townsend Dr	Houghton	MI	49931	23,087,000	223,171	-	23,310,171
32	Daniell Heights Apartments	2005 Woodmar Dr	Houghton	MI	49931	33,035,000	214,629	-	33,249,629
33	Daniell Heights Maintenance	2005 Woodmar Dr	Houghton	MI	49931	81,792	11,326	-	93,118
34	Memorial Union Building	1400 Townsend Dr	Houghton	MI	49931	17,422,411	1,228,595	-	18,651,006
36	21725 Woodland Road House	21725 Woodland Road	Houghton	MI	49931	102,720	6,142	-	108,862
37	Wadsworth Hall	1703 Townsend Dr	Houghton	MI	49931	66,958,000	1,931,488	-	68,889,488
38	West McNair Hall	1801 Townsend Dr	Houghton	MI	49931	12,386,000	32,258	-	12,418,258
39	McNair Hall Food Services	1801 Townsend Dr	Houghton	MI	49931	4,312,000	971,687	-	5,283,687
40	East McNair Hall	1801 Townsend Dr	Houghton	MI	49931	16,836,000	307,149	-	17,143,149
41	Central Energy Plant	1400 Townsend Dr	Houghton	MI	49931	23,146,000	68,904	-	23,214,904
42	Facilities Management Storage	1400 Townsend Dr	Houghton	MI	49931	2,946,461	368,578	-	3,315,039
44	Facilities Building	1400 Townsend Dr	Houghton	MI	49931	2,886,214	2,457,193	-	5,343,407
45	Kettle-Gundlach House	21680 Woodland	Houghton	MI	49931	531,569	24,698	-	556,267
46	Tech Trails Waxing Center	1400 Townsend Dr	Houghton	MI	49931	194,141	-	-	194,141
47	217 East Street House	217 East St	Houghton	MI	49931	120,282	-	-	120,282
48	Hillside Place	1801 Woodland Road	Houghton	MI	49931	18,960,000	1,833,423	-	20,793,423
49	Property Storage	1400 Townsend Dr	Houghton	MI	49931	226,822	12,286	-	239,108
50	Gates Tennis Center	1400 Townsend Dr	Houghton	MI	49931	4,061,954	20,213	-	4,082,167
51	207 East Street House	207 East St	Houghton	MI	49931	127,202	-	-	127,202
52	PLGC Clubhouse	46789 US Hwy 41	Houghton	MI	49931	834,521	92,145	-	926,666
53	Mont Ripley Ski Hill	49051 Ski Hill Lane	Houghton	MI	49931	32,011	122,860	-	154,871
54	Mont Ripley Ski Chalet	49051 Ski Hill Lane	Houghton	MI	49931	818,564	122,860	-	941,424
55	Mont Ripley Storage	49051 Ski Hill Lane	Houghton	MI	49931	174,624	178,218	-	352,842
56	Daniell Heights Storage 56	1400 Townsend Dr	Houghton	MI	49931	45,197	-	-	45,197
57	209 East Street House	209 East St	Houghton	MI	49931	123,735	-	-	123,735

Michigan Technological University
FY24 Statement of Values

Bldg No.	Building Name	Address	City	State	Zip	Buiding	Contents	Library Collections	Total Values
58	PLGC Maintenance -1	46789 US Hwy 41	Houghton	MI	49931	140,213	215,530	-	355,743
59	PLGC Maintenance -2	46789 US Hwy 41	Houghton	MI	49931	26,750	55,286	-	82,036
60	PLGC Cart Storage -A	46789 US Hwy 41	Houghton	MI	49931	192,600	-	-	192,600
61	PLGC Cart Storage - B	46789 US Hwy 41	Houghton	MI	49931	154,080	-	-	154,080
63	PLGC Maintenance - 3	46789 US Hwy 41	Houghton	MI	49931	88,078	117,332	-	205,410
65	Daniell Heights Storage 65	1400 Townsend Dr	Houghton	MI		136,960	24,572	-	161,532
69	KRC Engineering Design Center #69	23337 Airpark Blvd	Houghton	MI	49931	2,676,098	122,860	-	2,798,958
70	KRC Scientific & Admin Offices #70	23620 Airpark Blvd	Calumet	MI	49913	429,584	3,685,788	-	4,115,372
71	KRC Machine & Vehicle Shops	23620 Airpark Blvd	Calumet	MI	49913	171,200	395,635	-	566,835
72	KRC Vehicle Service Bldg T3	23620 Airpark Blvd	Calumet	MI	49913	237,026	1,842,894	-	2,079,921
73	KRC Vehicle Storage Bldg T4	23620 Airpark Blvd	Calumet	MI	49913	171,200	368,578	-	539,778
74	KRC Engineering Laboratories	23620 Airpark Blvd	Calumet	MI	49913	197,308	849,398	-	1,046,706
75	KRC Special Projects Facility	23620 Airpark Blvd	Calumet	MI	49913	80,304	44,685	-	124,988
76	KRC Support Services Facility	23620 Airpark Blvd	Calumet	MI	49913	26,545	8,787	-	35,331
77	KRC Water Truck Storage	23620 Airpark Blvd	Calumet	MI	49913	211,535	-	-	211,535
78	KRC Eng Support Facil Bendix	23620 Airpark Blvd	Calumet	MI	49913	220,506	276,434	-	496,940
79	KRC Chrysler Support Fac II	23620 Airpark Blvd	Calumet	MI	49913	320,508	12,681	-	333,189
80	KRC Cold Storage Building #105	23620 Airpark Blvd	Calumet	MI	49913	368,584	184,290	-	552,874
81	Power Generation Building	1400 Townsend Dr	Houghton	MI	49931	1,584,592	2,574,409	-	4,159,001
82	21610 Woodland Road House	21610 Woodland Road	Houghton	MI	49931	455,571	-	-	455,571
84	Harold Meese Center	1304 E Houghton Ave	Houghton	MI	49931	2,492,600	307,149	-	2,799,749
86	MTU Tower Building		Houghton	MI	49931	18,897	-	-	18,897
88	DPSPS/EMS Building	1400 Townsend Dr	Houghton	MI	49931	326,906	24,572	-	351,479
89	Tech Trails Maintenance	1400 Townsend Dr	Houghton	MI	49931	81,058	122,860	-	203,918
90	Sands Pilot Plant	6000 Carlos St	Houghton	MI	49931	1,299,060	24,572	-	1,323,632
92	Advanced Energy Research Building	1051 Ethel Ave	Houghton	MI	49931	409,464	982,878	-	1,392,342
94	AMJOCH Observatory	47976 N Huron St	Houghton	MI	49931	52,116	24,572	-	76,689
95	Advanced Technology Development Complex	1402 Sharon Ave	Houghton	MI	49931	7,640,789	4,943,907	-	12,584,696
96	SDC Annex Building	1400 Townsend Dr	Houghton	MI	49931	258,158	-	-	258,158
98	Settling Basin	1400 Townsend Dr	Houghton	MI	49931	252,416	-	-	252,416
98	Mont Ripley Chair Lift	1400 Townsend Dr	Houghton	MI	49931	594,793	-	-	594,793
100	Great Lakes Research Center	100 Phoenix Drive	Houghton	MI	49931	25,390,000	1,812,089	-	27,202,089
102	Advanced Power Systems Research Center	7 Industrial Drive	Calumet	MI	49913	7,906,825	1,208,059	-	9,114,884
103	A.E. Seaman Mineral Museum	1404 Sharon Ave	Houghton	MI	49931	2,112,708	117,265	-	2,229,972
107	212 East Street House	212 East St	Houghton	MI	49931	128,226	-	-	128,226
110	214 East Street House	214 East St	Houghton	MI	49931	162,085	-	-	162,085
111	46645 US-41 House	46645 US-41	Houghton	MI	49931	385,030	30,084	-	415,114
112	Facilities Storage	1223 Garnet Street	Houghton	MI	49931	412,147	120,333	-	532,480
113	Salt Storage Building	113 Cemetary Road	Houghton	MI	49931	380,074	-	-	380,074
201	FCF Hemlock Residence	21226 Alberta Ave	L'Anse	MI	49946	44,155	-	-	44,155
202	FCF Sassafras Residence	21235 Model T Lane	L'Anse	MI	49946	55,435	-	-	55,435
203	FCF Elm Residence	21229 Husky Dr	L'Anse	MI	49946	62,770	-	-	62,770
204	FCF Birdseye Residence	21251 Model T Lane	L'Anse	MI	49946	73,618	-	-	73,618
205	FCF Spruce Residence	21235 Husky Dr	L'Anse	MI	49946	68,078	-	-	68,078
206	FCF Tamarack Residence	21271 Model T Lane	L'Anse	MI	49946	82,837	-	-	82,837
207	FCF Birch Residence	21345 Husky Dr	L'Anse	MI	49946	64,818	-	-	64,818
208	FCF Basswood Residence	21238 Model T Lane	L'Anse	MI	49946	70,546	-	-	70,546
209	FCF Cedar Residence	21361 Husky Dr	L'Anse	MI	49946	68,450	-	-	68,450
210	FCF Beech Residence	21307 Model T Lane	L'Anse	MI	49946	59,092	-	-	59,092
211	FCF Ash Residence	21353 Husky Dr	L'Anse	MI	49946	61,186	-	-	61,186
212	FCF Balsam Residence	21365 Husky Dr	L'Anse	MI	49946	43,431	-	-	43,431
213	FCF Pump House	21293 Alberta Ave	L'Anse	MI	49946	73,132	8,833	-	81,965
214	FCF Sawmill Museum	21277 Alberta Ave	L'Anse	MI	49946	459,292	74,694	-	533,986
215	FCF 8-Car Garage	no address	L'Anse	MI	49946	118,240	19,231	-	137,470
216	Ford Center and Forest	21281 Husky Dr	L'Anse	MI	49946	1,161,537	269,607	-	1,431,144
217	FCF Classroom 1	21307 Husky Dr	L'Anse	MI	49946	294,461	-	-	294,461
219	FCF Classroom 2	21288 Husky Dr	L'Anse	MI	49946	78,600	16,237	-	94,838
220	FCF Recreation	21294 Husky Dr	L'Anse	MI	49946	78,600	20,295	-	98,895

Michigan Technological University
FY24 Statement of Values

Bldg No.	Building Name	Address	City	State	Zip	Buiding	Contents	Library Collections	Total Values
221	FCF Computer Lab	21302 Husky Dr	L'Anse	MI	49946	118,735	30,660	-	149,395
222	FCF Classroom 3	21310 Husky Dr	L'Anse	MI	49946	136,546	-	-	136,546
223	FCF Dorm 1	21358 Liberator Ave	L'Anse	MI	49946	341,750	88,248	-	429,998
225	FCF Storage 3	21219 Alberta Ave	L'Anse	MI	49946	78,942	27,181	-	106,123
226	FCF Storage 2	no address	L'Anse	MI	49946	95,584	-	-	95,584
230	FCF 9-Car Garage	21208 Glider Lane	L'Anse	MI	49946	302,831	45,864	-	348,696
231	FCF Maintenance	21245 Glider Lane	L'Anse	MI	49946	644,171	307,149	-	951,320
231	FCF Maintenance	21235 Alberta Ave. #2	L'Anse	MI	49946	383,696	34,594	-	418,289
233	FCF Main Office	21235 Alberta Ave	L'Anse	MI	49946	363,432	100,143	-	463,575
906	Michigan Tech Research Institute	3600 Green Court, Suite 100	Ann Arbor	MI	48105	-	1,861,324	-	1,861,324
-	Central Heating Plant Fuel Tanks	1400 Townsend Dr	Houghton	MI	49931	1,359,250	-	-	1,359,250
-	Copper Country Mall Print Shop Location	47420 M-26	Houghton	MI	49931	-	2,184,024	-	2,184,024
-	Business Interruption							-	106,592,000
TOTAL						**795,938,949**	**104,249,319**	**35,000,000**	**1,041,780,268**