Vision

Michigan Tech will lead as a global technological university that

- inspires students,
- advances knowledge, and
- innovates

to create a sustainable, just, and prosperous world.
Mission

We deliver action-based undergraduate and graduate education and discover new knowledge through research and innovation. We create solutions for society’s challenges through interdisciplinary education, research, and engagement to advance sustainable economic prosperity, health and safety, ethical conduct, and responsible use of resources. We attract exceptional students, faculty, and staff who understand, develop, apply, manage, and communicate science, engineering, technology, and business to attain the goal of a sustainable, just, and prosperous world. Our success is measured by accomplishments and reputation of our graduates, national and international impact of our research and scholarly activities, and investment in our University.
Strategic Plan

• Approved by Board of Control on May 1, 2015

✓ Major Goals
  ➢ People
  ➢ Distinctive Education and Rigorous-based Learning Experience
  ➢ Research/Scholarship/Creativity/Entrepreneurship/Innovation/Creative Work

• http://www.mtu.edu/stratplan/
Strategic Plan

• Approved by Board of Control on May 1, 2015

✓ Goal 1

➤ People
# Fall 2015 Faculty

- **New Tenured/Tenure-Track**: 23
  - Female: 9 (39%)

- **Instructors & Lecturers**: 7
  - Female: 2 (29%)

- **Tenured/Tenure Track Overall**: 342
  - Female: 91 (29.61%)

- **All Faculty**:
  - 416
  - Female: 121 (29.33%)

*All faculty includes Lecturer ranks and Fixed Term Instructors along with tenured and tenure track faculty.*
## Fall Enrollment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>5,717</td>
</tr>
<tr>
<td>Graduate</td>
<td>1,521</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>7,238</td>
</tr>
</tbody>
</table>
Fall Enrollment Statistics

- Retention (first to second year UG) 87%
- Highest Enrollment Since 1983
- Female Enrollment in COE 1070
  (Women make up 22.7% of COE- includes undergraduate and graduate)
First year to second year retention

- 1994: 85.8%
- 1995: 82.4%
- 1996: 83.3%
- 1997: 83.5%
- 1998: 80.3%
- 1999: 81.6%
- 2000: 79.5%
- 2001: 75.5%
- 2002: 77.6%
- 2003: 80.8%
- 2004: 81.0%
- 2005: 80.3%
- 2006: 80.7%
- 2007: 82.8%
- 2008: 81.9%
- 2009: 81.9%
- 2010: 80.9%
- 2011: 83.3%
- 2012: 83.2%
- 2013: 82.0%
- 2014: 85.0%
- 2015: 87.0%
First year undergraduate student enrollment

- 2006: 1,169
- 2007: 1,223
- 2008: 1,365
- 2009: 1,159
- 2010: 1,115
- 2011: 1,161
- 2012: 1,153
- 2013: 1,253
- 2014: 1,198
- 2015: 1,277
First year female undergraduates

Year | Female | % Female
--- | --- | ---
1990 | 285 | 30%
1991 | 290 | 31%
1992 | 295 | 32%
1993 | 290 | 31%
1994 | 285 | 30%
1995 | 280 | 29%
1996 | 275 | 28%
1997 | 280 | 29%
1998 | 285 | 30%
1999 | 290 | 31%
2000 | 295 | 32%
2001 | 285 | 30%
2002 | 280 | 29%
2003 | 275 | 28%
2004 | 280 | 29%
2005 | 285 | 30%
2006 | 290 | 31%
2007 | 295 | 32%
2008 | 285 | 30%
2009 | 280 | 29%
2010 | 275 | 28%
2011 | 280 | 29%
2012 | 285 | 30%
2013 | 290 | 31%
2014 | 295 | 32%
2015 | 365 | 35%

First year female undergraduates
First year UG computer science females

CS female freshmen

% female
Female enrollment

- 1947: 23%
- 1967: 27%
- 1997: 35%

Graph showing female enrollment from 1945 to 2015.

ACT Score

- Michigan Tech ACT Math
- Michigan Tech ACT Composite
- National ACT Math
- National ACT Composite
- National ACT English


ACT Score


25.3 25.3 25.5 25.4 25.4 25.1 25.2 25.6 25.6 26.0 26.1 26.4 26.3 26.7 27.0 26.8

Create the Future
Graduate enrollment by school and college

- School of Technology
- College of Sciences and Arts
- School of Forestry and Environmental Sciences
- College of Engineering
- School of Business
- No college designated

- Michigan Tech

Create the Future
Full Time Graduates Vs. FTE Undergraduates
Michigan Public Universities and Michigan Tech Benchmark Universities
Fall 2014

- Northern 0.8
- Saginaw 1.1
- Cal Poly 1.2
- U of Minn - Duluth 2.0
- Central 3.0
- UM - Flint 2.4
- Oakland 3.1
- U of Wisc - Milwaukee 3.3
- Eastern 1.5
- Western 1.4
- Grand Valley 1.4
- Ferris 1.8
- Michigan State 4.7
- UM - Dearborn 1.5
- Clarkson 3.0
- RPI 3.4
- MUST 4.2
- U of Wisc - Madison 4.9
- Lehigh 2.9
- U of Minn - Twin Cities 4.3
- Wayne 5.6
- Georgia Tech 5.9
- UM - Ann Arbor 5.0
- UM - Ann Arbor 5.0
- MTU (2004) 2.0
- MTU (2010) 2.6
- MTU (2011) 2.6
- MTU (2012) 2.6
- MTU (2013) 2.9
- MTU (2014) 3.1
- U of I - Champaign 5.6
- Portrait 2035 8.2

FTE Undergraduates/FTE T-TT Faculty vs. Full Time Graduates/FTE T-TT Faculty
Strategic Plan

• Approved by Board of Control on May 1, 2015

✓ Goal 2

➢ Distinctive and Rigorous-based Learning Experience
Transdisciplinary Initiatives

Biomaterials
- Ecosystem Dynamics - Extraction & Procurement – Processing & Manufacturing-
- Marketing, Sales & Distribution – Post-Consumer Processing & Recycling;
- Natural Capital – Human Capital

H-STEM: Health Science, Technology, Engineering, and Mathematics -
“An integrative force across Michigan Tech, bringing together research and education efforts at the STEM nexus to advance human health”

Center for Quantum Phenomena
- The Center’s mission – provide national leadership in the investigation of processes linked together into the interdisciplinary theme of ‘quantum world’.
Transdisciplinary Initiatives

Center for Entrepreneurship and University Maker Environment
   Transdisciplinary opportunities for students; MTESC, Innovation & Industry Engagement

Institute for STEM Education Research
   Proposal under review; white paper being developed to seek external funding
Michigan Tech Emergency Medical Services
Celebrating 5 Years of Volunteer Service
Michigan Tech EMS

- Average 75 - 911 medical calls per year
- Average response time 4 minutes
- Support Michigan Tech special events including research projects, athletic events, and University traditions
- Campus CPR/AED/First Aid classes
- All members are now trained at Emergency Medical Technician (EMT) level (224 hours of course work)
- Onboarding 18 new EMT volunteers
- Two State licensed instructors on staff
- EMS Tahoe driven by on-call (24/7) members to improve response time
U.S. News Best Colleges Ranking
(Undergraduate)

• Tied for 123rd among 280 national universities

• Ranked 60th among 173 public national universities

• Engineering ranked 70th of 152

• Listed as an “A-plus School for B Students”

• Listed as “Best Colleges for Veterans”
  – Tied at 101st
• Ranked 7th in the nation for ROTC Program
• Ranked 15th for faculty receiving significant research grants
• Ranked in the top 25% of all national universities
• Ranked in the top 18% for students earning bachelor’s degrees who go on to earn PhDs
Payscale

- 7th for early-career salary among public schools nationwide
  - $62,800 typical starting salary
- 1st among publics in Michigan for mid-career salaries
- 13th nationwide for mid-career of public universities
- 20th in nation for mid-career engineering salaries
On Campus Recruiting Statistics

2014-2015 Academic Year
(Fall & Spring)

466 Recruiting Organizations on Campus
783 Interview Schedules
8,055 Available Interview Slots
2015 Fall Career Fair
(Week of September 28 – October 2)

371 Recruiting Organizations on Campus

370 Interview Schedules

4,196 Available Interview Slots
Strategic Plan

• Approved by Board of Control on May 1, 2015

✓ Goal 3

➢ Research/Scholarship/Entrepreneurship/Innovation/Creative Work
Research
### Research Expenditures, Unaudited FY15

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FINAL FY2015</th>
<th>FINAL FY2014</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>2,368,505</td>
<td>2,222,607</td>
<td>145,898</td>
<td>6.6%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>27,048,969</td>
<td>25,282,304</td>
<td>1,766,665</td>
<td>7.0%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>15,361,434</td>
<td>13,740,203</td>
<td>1,621,231</td>
<td>11.8%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>356,221</td>
<td>398,128</td>
<td>(41,907)</td>
<td>-10.5%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>6,870,541</td>
<td>8,184,775</td>
<td>(1,314,234)</td>
<td>-16.1%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>9,698,319</td>
<td>10,898,674</td>
<td>(1,200,355)</td>
<td>-11.0%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>1,623,653</td>
<td>1,454,644</td>
<td>169,009</td>
<td>11.6%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>5,771,264</td>
<td>5,877,074</td>
<td>(105,810)</td>
<td>-1.8%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>507,811</td>
<td>467,453</td>
<td>40,358</td>
<td>8.6%</td>
</tr>
<tr>
<td>Total</td>
<td>69,606,717</td>
<td>68,525,862</td>
<td>1,080,855</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

*Includes the Vice Presidents, Provost, CIO, Exec Director Financial Services & Operations and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.
Sponsored Awards and Research Expenditures, Unaudited FY15
# Intellectual Property, Unaudited FY15

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>+/- %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures Received²</td>
<td>33</td>
<td>45</td>
<td>-27%</td>
</tr>
<tr>
<td>Nondisclosure Agreements</td>
<td>116</td>
<td>98</td>
<td>18%</td>
</tr>
<tr>
<td>Patents Filed or Issued²</td>
<td>17</td>
<td>23</td>
<td>-26%</td>
</tr>
<tr>
<td>License Agreements</td>
<td>11</td>
<td>15</td>
<td>-27%</td>
</tr>
<tr>
<td>Gross Royalties²</td>
<td>255,051</td>
<td>262,424</td>
<td>-3%</td>
</tr>
</tbody>
</table>
Unaudited FY15 Corporate Sponsorship

Sponsored Awards
-Industry-
COMBINED*
Fiscal Year 2015
4th Quarter
 Ended June 30, 2015

TOTAL: $13,507,388

- Automotive: $3,993,403
- Business & Economics: $293,443
- Chemical: $429,639
- Civil: $971,825
- Consumer Products: $876,894
- Defense & Space: $1,557,338
- Energy: $2,984,027
- Environmental: $277,067
- Health: $369,267
- Industrial Engineering: $376,056
- IT Services: $285,540
- Mining & Metals: $815,085
- Other: $186,183
- Technology: $91,621

TOTAL: $13,507,388
BUDGET
Cash Balance by Month for Fiscal Years 2014-2016

$46MM
# Current Fund FY15
*(unaudited - in thousands)*

<table>
<thead>
<tr>
<th></th>
<th>Original Projection</th>
<th>June Unaudited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$273,076</td>
<td>$272,170</td>
</tr>
<tr>
<td>Expense</td>
<td>$(272,413)</td>
<td>$(270,325)</td>
</tr>
<tr>
<td>Net Income</td>
<td>$663</td>
<td>$1,845</td>
</tr>
<tr>
<td>Current Fund Balance</td>
<td>$17,784</td>
<td>$18,966</td>
</tr>
</tbody>
</table>

Note: Current Fund includes General, Designated, Auxiliary, Retirement and Insurance, and Expendable Restricted Funds.
# Current Fund Balances

(unaudited - in thousands)

<table>
<thead>
<tr>
<th>June Unaudited 06/30/15</th>
<th>Balance 06/30/12</th>
<th>Balance 06/30/13</th>
<th>Balance 06/30/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Current Fund Balance</td>
<td>$12,488$</td>
<td>$13,195$</td>
<td>$17,121$</td>
</tr>
<tr>
<td>Legally Restricted Funds</td>
<td>(3,590)</td>
<td>(2,587)</td>
<td>(3,852)</td>
</tr>
<tr>
<td>Subtotal Unrestricted Current Fund Balance</td>
<td>8,898</td>
<td>10,608</td>
<td>13,269</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Pension Liability</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unrestricted Current Fund Balance</td>
<td>$8,898$</td>
<td>$10,608$</td>
<td>$13,269$</td>
</tr>
</tbody>
</table>
Michigan Public School Employees Retirement System (MPSERS)

- During development of GASB 68, Michigan Office of Retirement Services (ORS) discovered that MPSERS universities have been overcharged for pension fund payments.
- ORS then worked with actuaries to compute each university’s overpayment amount including interest.
- ORC met with the MPSERS universities to explain the overpayment situation and provide the amount of credit each will receive.
- The one-time MSPERS refund was received on September 30.
- $11,784,204 ($112M for all seven universities).
Advancement

- 2015 Goal - $32.5M; Raised $33.7M
- 2016 Goal - $32.5M
Michigan Technological University  
Michigan Tech Fund  
Goals Summary Chart  
July 1, 2015 through September 30, 2015  
(in millions)

<table>
<thead>
<tr>
<th></th>
<th>FY16 Goal</th>
<th>Actual</th>
<th>% Realized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Gifts</td>
<td>$5.50</td>
<td>$4.41</td>
<td>80%</td>
</tr>
<tr>
<td>Planned Gifts</td>
<td>10.00</td>
<td>9.25</td>
<td>92%</td>
</tr>
<tr>
<td>Annual Giving</td>
<td>2.50</td>
<td>0.58</td>
<td>23%</td>
</tr>
<tr>
<td>Corp Sponsored Research</td>
<td>9.00</td>
<td>2.03</td>
<td>23%</td>
</tr>
<tr>
<td>Corporations</td>
<td>2.00</td>
<td>0.39</td>
<td>19%</td>
</tr>
<tr>
<td>Foundations &amp; Other</td>
<td>3.00</td>
<td>0.10</td>
<td>3%</td>
</tr>
<tr>
<td>Gifts-in-kind</td>
<td>0.50</td>
<td>0.34</td>
<td>67%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$32.50</strong></td>
<td><strong>$17.09</strong></td>
<td><strong>53%</strong></td>
</tr>
</tbody>
</table>
Michigan Tech Fund
Planned Giving Registry ($150,228,632.02) - Actuarial Expectancy by Years
September 22, 2015

<table>
<thead>
<tr>
<th>Years</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr 1</td>
<td>$5,566,550</td>
</tr>
<tr>
<td>2-5 Years</td>
<td>$10,811,319</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>$38,761,735</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>$19,548,159</td>
</tr>
<tr>
<td>16-20 Years</td>
<td>$37,168,671</td>
</tr>
<tr>
<td>21-25 Years</td>
<td>$16,225,970</td>
</tr>
<tr>
<td>26-30 Years</td>
<td>$10,036,232</td>
</tr>
<tr>
<td>31-35 Years</td>
<td>$6,091,800</td>
</tr>
<tr>
<td>36-40 Years</td>
<td>$3,120,000</td>
</tr>
<tr>
<td>41-55 Years</td>
<td>$945,000</td>
</tr>
</tbody>
</table>
Michigan Tech Fund
Planned Giving Registry Growth
1985-2015
$4.6 million to $151.0 million
Michigan Tech Fund
Realized Planned Gifts
1985-2015
(in millions)
University-Wide Projects
$25M Bond

- Daniell Heights Maintenance
- IT Fiber Backbone
- Department Moves
  - Print Shop/Mail Room
  - Huskies Motors
  - Public Safety & Police Services
- Safety Issues
  - Elevator Upgrades
  - Fire Alarms
  - HVAC Controls
Re-Engineering Personnel Management Systems (REPMaS)

First Initiative Complete!
Salary Planner Raise Process
REPMaS Charge (Jan 2013)

The REPMaS team will Re-Engineer and enhance the overall use of the Banner HR module within the HR, Payroll, Accounting, and Budgeting Offices to its full capabilities. This includes the implementation of Salary Planner.
Objectives of REPMaS

Evaluate & Improve
  – Security Roles
  – Data Structure

Improve Data Integrity

Automate Processes

Reduce
  – Modifications needed for Upgrades
  – Duplication of Effort campus wide

Move toward complete utilization of Banner HR
REPMaS Timeline

Nov 2010 - Data Standard Task Force
January 2012 - Banner HR Process Improvement Assessment

REPMaS – Kicked off in January of 2013

Year 1 2013 –
  Communicate Vision
  Review Current State
Year 2 2014 –
  Develop Implementation Plan
  Develop Processes to Maintain Data Integrity
Year 3 2015
  Began Integrating HR Payroll with Finance
  Roll out Salary Planner Raise Process in Banweb
Year 4 2016 - More coming!
  Financial Planning Tools Available to users across campus
Performance Management Cycle For Non-Union Staff

- **Performance Planning**
  - Set Goals in October

- **Continuous Coaching**
  - Mentoring Leadership Supervision

- **Mid-Year Status Check-in**
  - Complete in April

- **Year-End Review**
  - Complete and submit by October 15

- **Self-Assessment prior to Year-End Review**
  - Employees complete in September

---

*Michigan Tech Create the Future*
2015-2016 Compensation Adjustment Timeline*

September 28  Salary Planner to Dept.
October 10    Compensation Changes
Completed in Salary Planner
November 2-6  Employees Notified
December 20  Effective Date
January 8, 2016  Paycheck with Adjustment

*Unions Negotiated Separately
Mont Ripley Tubing Park

Planned Opening – Late November 2015
Thanks For All You Do!

QUESTIONS