MINUTES OF THE FORMAL SESSION OF THE BOARD OF TRUSTEES OF MICHIGAN TECHNOLOGICAL UNIVERSITY held pursuant to due call Ballroom B of the Memorial Union Building on the campus of Michigan Technological University in the City of Houghton, Michigan at nine o’clock on the morning of October 14, 2016.

The Board of Trustees of Michigan Technological University met in formal session at the University's campus at Michigan Technological University in the City of Houghton, State of Michigan, at 9:00 a.m., on the 14th day of October, in Ballroom B of the Memorial Union Building. The place, hour, and date duly established and duly published for the holding of such a meeting.

The meeting was called to order by the Chair, T. Woychowski, and a quorum was declared present.

The following members of the Board of Trustees were present:

- T. J. Woychowski, Chair
- L. D. Kennedy, Vice Chair
- T. L. Baldini
- J. A. Fream (via conference phone)
- R. J. Jacquart
- P. G. Ollila
- B. R. Ryan
- G. D. Mroz, ex officio

The following members were absent:

- B. L. Johnson

Also present during part or all of the session were: Roberta Dessellier, Secretary of the Board; Julie Seppala, Treasurer; Jackie Huntoon, Provost and Vice President for Academic Affairs; David D. Reed, Vice President for Research; Ellen Horsch, Vice President for Administration; Les Cook, Vice President for Student Affairs and Advancement, and various members of the faculty, administrative staff, student body, press and public.

The meeting opened with a safety briefing and the Pledge of Allegiance.

Where item numbers are used, they refer to corresponding item numbers in the agenda, in the hands of the Board members.
I. APPROVAL OF AGENDA

It was moved by R. Jacquart, supported by P. Ollila, and passed by voice vote without dissent, that the agenda of the formal session of October 14, 2016, as distributed to the Board, be approved.

II. OPENING REMARKS

Chair’s Comments

Welcome everyone, on this Friday October 14, our home opener for the 2016-17 hockey season against University of Alabama Huntsville.

As we will hear from Dr. Cook in a few minutes, Michigan Tech this fall is seeing its highest enrollment in 33 years with 7,268 smart, adventurous, and motivated students. The most since 1983.

- More females (1957) than ever before, making up 27% of the student body.
- At 27.2 this year’s first year students have the highest average ACT composite score of all time.
- This year’s first year class is also the most diverse, where over 9% of our incoming class is of traditionally underrepresented domestic populations.

Along those lines, progress continues on the University’s Working Statement on Campus Civility and Inclusivity:

- Michigan Technological University is dedicated to excellence in education and research, and to the growth and development of all members of our University community. The University also recognizes the necessity of protecting First Amendment rights and academic freedom by encouraging free speech and expression, and the open debate that is a cornerstone of learning. Such a community requires an environment of civility, trust, mutual respect, and openness where productive work, teaching, and learning can thrive. The University is committed to providing an educational and work environment that is collegial and supportive, and respectful of diversity of opinion. All members of the University community, including students, faculty, and staff, are expected to fulfill their obligations toward students, colleagues, and other University community members fairly, respectfully, and professionally.
- The Implementation Steering Committee Working members are Ann Kitalong-Will, Chair; Heidi Reid and Lori Weir. They will manage the roll-out and awareness-raising activities that will take place in the next couple of months; as well as identify consultants to serve as advisors to the steering committees.
Today the board will be asked to vote on a five-year capital outlay request to the state which includes the H-STEM Engineering and Health Technologies Complex - Phase I
  o The H-STEM engineering and health technologies complex will support Michigan Tech’s integrated educational programs that apply engineering and science to improve the human condition and become the focal point for our future human centered engineering efforts.

A number of recent activities that continue to bring distinction to Michigan Tech include
  o The EPA has named Michigan Tech the new home of its Region 5 environmental finance center, a recognition that comes with a six-year grant of up to $5.6 million dollars. One of 10 nationwide, the new EPA center will help municipalities and state agencies find better ways to manage and maintain their infrastructure and to minimize their impact on the environment.
  o David Watkins, Professor (Civil & Environmental Engineering) and Chelsea Schelly, Assistant Professor (Social Sciences), received $1,477,068 for an anticipated 5-year project totaling $2,983,359, from the National Science Foundation. They will use a demand-side approach to focus on conservation to meet the increasing consumption/demand of food, energy and water caused by income and population growth.

Houghton has been named one of the 30 safest college towns in America. Clocking in at number 19 in the country, The Safewise report cites that “Community relations and citizen participation are cornerstones of public safety for both the city and MTU.” as one of the numerous reasons for the high national ranking.

Michigan Tech's Admissions staff has been selected as the Outstanding Professional Team for 2016 by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO).

Linda Wanless, in the School of Technology was awarded the Society of Manufacturing Engineers' Lean Bronze certification, offered through a partnership of SME, the Association of Manufacturing Excellence, the Shingo Institute and the American Society for Quality. Wanless is the first person on Michigan Tech's campus to receive this certification. To earn the Lean Bronze Certification, a person must pass an exam and demonstrate their lean development by creating a comprehensive portfolio that details their ability to apply Lean through tactical projects and documents their Lean education, training and other activities.

In a recently released ranking of world universities, Michigan Tech is ranked among the top 11 percent worldwide. QS World University Rankings considered 4,322 universities in its latest rankings. QS Top Universities in the World ranks schools by increments of 50 points. In the 2016-17 rankings just released. Michigan Tech scored 501-550. The University has moved up 50 points since it was first ranked by this organization in 2013.
  o Time/Money magazine have ranked Michigan Tech as one of the 50 best public colleges in the nation. Coming in at #36 in the nation, the magazine publishers also cite Michigan Tech as one of the top 50 colleges that “you can actually get into.”
With regard to safety, the Health and Safety Task Force is hard at work and has added Jeff Lewin, Departmental Laboratory Supervisor in Biological Sciences and Bob Page, Laboratory Facilities Manager, ME-EM Advisor and Hybrid Electric Vehicle Advisor in Mechanical Engineering to the group who will assist in an effort to migrate safety practices into the academic areas. I am also pleased that their department chairs, Dr. Predebon and Dr. Joshi, are supportive of their effort. The University is also recruiting for a chemical safety officer who will work closely with our employees and students in labs and campus wide. And lastly, the University safety staff, in conjunction with a faculty fellow recently developed a Chemical Hygiene Plan to provide a baseline for all affected departments to comply with OSHA regulations.

Several Board members had the opportunity to review the new Chemistry Teaching Lab which will serve as a model for the future renovations of the Chemistry laboratories.

In conclusion, I would like to share that this morning the board had the privilege of sharing breakfast with a diagonal slice of students and we had the opportunity to share thoughts and ideas along the lines of the provocative question "If you could change one thing about Michigan Tech, what would it be?" The table talks were rich and insightful, and the students demonstrated a deep commitment to our university. They definitely fit the earlier description of being smart, adventurous and motivated.

Additionally, the last couple of mornings I had the unique privilege of leading several of our Senior Army ROTC cadets in boxing PT sessions. Remarkably, The SDC is a bee hive of activity that early in the morning, with the woman's soccer team boarding a bus at 05:45 headed to Ohio, and numerous other students, faculty and staff rolling in for their morning work outs. The cadets trained with intensity and focus, they picked up the requisite techniques quickly and conducted themselves as true warrior scholars.

Surely there are many challenges ahead for our university, our State and our nation. Meeting with such students as we did, one cannot help but to be filled with pride in our university, and an abiding hope in our future.

Thank you, and I would like to ask President Mroz for his opening comments.

President’s Comments

Last December, the Michigan Postsecondary Credential Attainment Workgroup, a group of business, education and political leaders in our state published an action plan to increase the qualifications of Michigan’s workforce. The Michigan Association of State Universities was part of the group as was the Business Leaders for Michigan. A goal set by the group is shared by our Governor – that 60% of the state’s residents earn a high quality degree or other credential by the year 2025.

Why? Because as predicted in the 2007 Gathering Storm report published by the National Academy of Science, National Academy of Engineering, and the Institute of Medicine, the link between education and economic well-being had gone from being a suspicious notion, to being simply, a fact of life. By 2008, not only had the storm gathered, but Michigan with its
low training and education attainment rate was ill prepared to deal with storm force economic winds.

The shortage of trained and educated workers would drag down the economy – and launch a war for talent among companies and states that continues today. While at one time, businesses chased low wages across state boarders and around the world – they were now chasing talent – and it was, as predicted, in short supply – particularly in Michigan.

This was in large part, because only 38% of Michigan’s working population age 25 to 64 had the necessary credentials and skills for a job as recently as last year. The report and our Governor have been clear that it needs to increase to 60% to keep business in our state, and attract business to our state for reasons obvious and not so obvious. People with credentials: Have higher incomes Have lower unemployment, even in recessions Are more likely to be entrepreneurs Raise economic growth creating jobs for others Are taxpayers, vote more often, volunteer more, are healthier and spend more time with families And at the state level - builds the brand that Michigan is a Talent State

Why 60? A goal of 60% for postsecondary credentials would put Michigan in the top 10 states in the country…. where we belong.

Our part - Michigan Tech’s part - is not insignificant. Last year, a record 1,749 Bachelor, Masters and PhD degrees were conferred to people who develop, understand, apply, manage and communicate science and technology. People who have a disproportionate effect on economic growth because what they can do creates jobs for others. People who think data and truth matters in design and decision making – which also seems to be in short supply.

Recognizing this, 331 groups (companies, government agencies, military, grad schools) came to campus this fall for our Career Fair with over 1200 recruiters to talk to our students. And our students get it! - An astonishing 54.61% of our first year students – students in their first semester here on campus, attended the career fair. And over 70 companies participated in our 4-week long Career Fest Industry Days on Campus. That’s up from just 4 participating companies in our inaugural year for Industry Days only 2 years ago. This level of employer engagement clearly presents great opportunities for our students to meet recruiters in both formal and less formal settings, and they’re seizing the opportunity. And it’s a reason why Money Magazine, the Wall Street Journal, Payscale, US News and World Report and others recognize Michigan Tech as a place of opportunity and consequence for students and graduates……and perhaps relief for parent’s hopeful for their student’s future.

But taken together, all of this information is essentially feedback to us, and an opportunity for all of us to gauge whether we are doing the things that the people of State of Michigan need and expect of all of us. And it also helps us gauge how we’re doing at fulfilling the purpose of the university, stated in the enabling legislation to “…promote the welfare of the industries of the state”. From the corporate and business community engagement we have seen, and the response of our students, faculty and staff to their interests…. we are on track.
One last thought and a note of well-deserved thanks. There is a little more to the phrase I mentioned in the enabling legislation. It reads, “…. promote the welfare of the industries of the state, insofar as the funds provided shall permit…”.

In the ‘70’s (seems like yesterday), 75% of higher education in Michigan was State funded. Today at Michigan Tech, that’s 16%. State financial aid to students is less than half of what it was in 2002 when it peaked at $262MM. As a state, we are 40th in the nation for state financial aid to students per capita - and only 30% of that goes to students attending public universities. Far from being top10. The Universities to varying degrees have picked up the slack. At Michigan Tech, we’ll award over 44 million dollars in financial aid and when combined with fellowships for grad students the total comes to 52 million dollars.

It’s a big number. But more than that, it’s important to remember that access for many students requires financial aid. The students and graduates that are sought after require financial aid. Transforming lives through education requires financial aid. So it’s also important to recognize that philanthropic gifts received by Michigan Tech, largely depend on people who believe that Michigan Tech can offer that transforming education.

So it’s my honor at this time to recognize several people who not only share their time and passion for Michigan Tech, but their financial resources as well. These people not only set policy and direction, but they set an example – and are the newest members of the Michigan Tech Founder’s Society for outstanding lifetime giving to Michigan Tech. In alphabetical order: Tom Baldini, Julie Fream, Brenda Ryan & Terry Woychowski. Thanks for your commitment and for leading by example.
III. REPORTS
   A. Undergraduate Student Government Report

USG Update
October 14, 2016
Samuel Casey, USG President

Agenda
- Overview of USG Goals
  - Transparency
  - Better Representation and Advocacy
  - Accountability
  - Sustainability
- Campus Improvement Fund
- Tuition Discussion
- Portrait 2040

Transparency
- Write-up/archive of important decisions
- Rebranding
  - Marketing/consulting
  - Social media and email communication
  - Logo articles
- Financial transparency
Representation & Advocacy

- New constitution structure
  - College/school representatives
  - Class representatives
- Meet your organization
- Tuition discussion
- Shared governance
  - Students are customers of the University

Accountability

- Recognition and incentive plan
- Application-based communication
  - Slack
  - RedList

Sustainability

- Operate with transition in mind
- Create a USG that is successful year after year

Campus Improvement Fund

- New constitution
  - Allows us to use rollover funds for campus improvement
- Funding proposal
  - One lump sum vs many small projects
  - Allows large opportunity for one group
  - Student could improve campus as they see fit
Tuition Discussion

- USG Memorandum - July 21
- Our Concerns
  - Ballooning tuition
  - No clear end goal
  - Email to students was misleading
  - No student voice
- Our Requests
  - Availability of tuition data
  - Written explanation of tuition structure
  - Strategic plan outlining end goals
  - Solution for AP & dual enrollment credits
  - Student representative to Audit and Finance Committee

Portrait 2045

- Goals represent an improved University
- Why doesn’t this reflect what students want to see in the University?
  - How does an environmentally sustainable campus fit into the portrait?
    - Renewable energy? Recycling?
  - Why is there no mention of tuition structure or cost of attendance?
  - Why are women the only minority students mentioned?
  - No mention of infrastructure to support increases in enrollment
    - Housing? Transportation? Parking?
- Does it paint a portrait?

B. Graduate Student Government Report

Graduate Student Government of Michigan Tech

Presented by
William Lytle

October, 2016

Board of Trustees
Michigan Technological University
Event Updates

Increased program attendance
- 350+ at Social Events
- Developing strong relationships

3MT Presentations
- Finals took place this week
- Winners advance to Regional Competition

Advanced leadership
- Council members serve on committees
- Conversation on goals and strategies

Improved continuity
- Fine tuning budgets
- Identifying collaborators

Graduate Student Concerns

Housing

The local area is under capacity to meet the current and future student enrollment. Issues are disproportionately born by first year international graduate students.

- Daniel Heights Waiting List
- Safety and Inclusion
- Security for Int'l Renters
- Accessibility

GSG Responses:
Creation of committees, surveys, administrative meetings and forums to better understand needs and obstacles in Housing.

Graduate Student Concerns

Transportation

Conflicts between people walking, biking, and driving have increased. Shuttles to campus, businesses and housing do not fit student needs. Parking is unreliable and overfilled.

- Pedestrian Safety
- Bicycle Infrastructure
- Public Transit
- Ridesharing
- Parking

GSG Responses:
Working with Enterprise groups, student orgs, city officials and relevant MTU staff. Attending conferences and reviewing business models.
Proposed Bike Lane

Graduate Student Concerns

Sustainability

Progress toward sustainability goals is required to protect the quality of life of students, residents and visitors of the Keweenaw.

- Recycling
- Food waste
- Transportation
- Energy
- Development

GSG Response:
Call for Sustainability Director, and appointment of Student Coordinator. Dedication of volunteer time and energy to advance discussion on sustainability.

Advocacy

Collaboration Opportunity

Students have been involved with:

- Problem identification
- Data gathering and processing
- Solution development
- Financial planning

Graduate students and volunteers are interested in having more meaningful involvement in decision-making at the University.

Individuals within the University are amenable to developing solutions; however, they lack the resources and frameworks to initiate the projects proposed by students.
Advocacy

Co-ownership

The Graduate Student Government requests that:

The Board of Trustees support inclusion of an explicit commitment to students, staff, faculty and community in the Strategic Plan or Portrait of 2045 to ensure a high quality of life for current and future stakeholders.

Including specific engagement on:
- Housing
- Transportation
- Sustainability
- Accountability and Transparency

Project Example

Douglas Houghton Hall

Goals
- Serve communication needs of community
- Build ESL Program
- Diversity and Inclusion
- Optimize DME

Partners
- Pavlis Honors College
- ESL
- Alumni Relations
- Administration
- USG and QSS

Activities
- Learning communities
- Language, research and service
- Cultural events
- Culinary representation

Outputs
- Improved student experience
- Affinity groups
- Professional, academic and social development
- Engaged Alumni
C. University Senate Report

University Senate Report

Presented to the Board of Trustees
October 14, 2016

Marty Thompson, President
University Senate

11 Senate approved Proposals

- 8 proposals approved by administration
  - 5 curricular programs, including a minor in Leadership
  - Evaluation Procedures for Department Chairs and School Deans
  - Policy on Class Attendance
  - Academic Calendar 2017-2018

- 3 proposals rejected by administration/being discussed
  - Evaluation Procedure for the President
  - Establish Liaisons in all Units Participating in Assessment
  - Amendments to Final Exam Policy 602.1

Recommendations from (annual) reports

- Ralph Hodek, Chair, Sabbatical Leave Committee
  recommendations to improve collection of post-sabbatical reports. Minutes 579.

- Audrey Mayer, Chair, CATPR
  recommendations for improved communication and transparency. Minutes 579.

- Jacob Gut, Fringe Benefits Committee
  Discussed retirement plans and the TRIP program with Michigan & peer-institutions. Minutes 574. Discussion in the benefits liaison group (BLG) about tuition reduction incentive program (TRIP).
Invited Presenters

- **Michael Meyers**, Director CTL (IT, AIP)  Presenting 10/5
- **Jean Kampe**, Associate Provost. Undergraduate Programs Assessment. 
  *Not scheduled yet.*
- **Pushpa Murthy**, Dean, Graduate School. Graduate Programs Assessment. 
  *Not scheduled yet.*
- **Christopher Plummer**, Chair, Academic and Instructional Policy Committee presented a report on inclusion. (Christopher is now on the Diversity Council.) *Minutes 576. Update. Not scheduled yet.*
- **Ann Kitalong-Will**, Chair, Steering Committee, *Civility Statement.*
- **Ellen Horsch**, VP Administration. Parental Leave Policy. *Not scheduled yet.*

Impact of Presentations

1. **Recycling**: changing the campus to reflect a sustainable environment
2. **TRIP comparison study**: working on delivering benefits to employees

Key Objectives

1. Reviewing the Compensation Strategy Task Force Report
2. Examination of benefits changes
3. Inculturate Assessment
4. Technology in the classroom
5. Journal and textbook costs
6. Find ways to give employees relief from rising cost of benefits/cost shifting.
IV. COMMITTEE REPORTS

A. Academic Affairs Committee Report

Ms. Linda Kennedy reported that there was a gaffe with the meeting as USG, GSG and the Senate were not invited to attend, which was in error. This will be corrected for future meetings as the Academic Affairs Committee welcomes their participation as they have in the past years. The Committee reviewed the awards and recommends the full Board approval of the Honorary Degree to Mr. Keith Creagh; Board of Trustees Silver Medals to Mr. John Drake and Mr. Norbert Verville, Sr.; and the Melvin Calvin Medal of Distinction to Mr. John Opie. They also reviewed employee recognition for years of service to Michigan Tech for Dr. Donald Beck (36 years), Dr. Bruce Pletka (39 years), and Dr. Carl Vilmann (37 years) and are recommending approval to the full Board.

The Committee heard reports from Dr. Pushpa Murthy, Associate Provost and Dean of the Graduate School and Mr. Jacque Smith, Director of Graduate Student Enrollment Services regarding graduate enrollment; a report on the English as a Second Language program from Mr. Jacque Smith and Dr. Alexandria Guth, Director of Academic Accreditation and Compliance; a report on updating the academic affairs dashboard from Ms. Carrie Richards, Dual Career Program Coordinator and Mr. Alan Ollanketo, Manager of Finance and Planning; and a report on teaching U.S. History from Dr. Bruce Seely, Dean of Sciences and Arts.

Provost Report

Dr. Jackie Huntoon provided the Board with the following report.
FY 2016 – Undergraduate Outcomes

- 1,110 Baccalaureate Degrees
  - 147 Cum Laude
  - 129 Magna Cum Laude
  - 50 Summa Cum Laude
  - 63 Certificates

- Placement
  - 93.2% Total Placement (within six months of graduation)
  - 73.5% Full Time
  - 12.3% Graduate School
  - 7.5% Other Positions
  - 6.8% No placement

FY 2016 – Graduate Outcomes and Funding

- 502 Graduate Students Graduated (Highest Number Ever)
  - 416 Master’s
  - 86 PhD

- PhD Support
  - 33% Self
  - 28% External
  - 39% Internal

- Master’s Support
  - 47% Self
  - 6% External
  - 7% Internal

FY 2016 – Faculty and Researchers

- 341 T&T Faculty
  - 111 Full Professor
  - 137 Associate Professor
  - 95 Assistant Professor

- 110 N-T&T Faculty
  - 64 Adjunct, Assoc. Prof., Lecturer
  - 37 Instructor
  - 14 Lecturer
  - 12 Professor of Practice

- 171 Researchers
  - 147 Research Prof., Sks, Engng
  - 24 Post-Docs

- T&T Faculty Demographics
  - 26.6% Female
  - 23.3% Domestic URM

- FY 2016 Faculty and Researchers FY 03-16

Michigan Technological University
Fall 2015 – Faculty and Researchers

Public Higher Research Universities
Fall 2014

- 52%
- 28%
- 20%

Michigan Tech
Fall 2015

- 72%
- 12%
- 10%


FY 2017 – New Faculty

Tenured/Tenure-Track Faculty
• 13 New in Fall 2016
  • 2 School of Forest Resources and Environmental Sciences
  • 6 College of Engineering
  • 5 College of Sciences and Arts

Non-Tenure Track Professors, Instructors, Lecturers
• 11 New in Fall 2016
  • 1 School of Business and Economics
  • 6 College of Engineering
  • 4 College of Sciences and Arts

Fall 2016 – Undergraduate Enrollment

- 5,827 Undergraduate Students
  • 1,381 First-Time Freshmen
  • 199 First-Time Transfers
  • 4,116 Returning
  • 131 Other
  • 27.2 Average ACT Score (Freshmen)
  • 27.0% Female
  • 7.4% Domestic URM
  • 3.2% International
  • < 1% Online

Fall 2016 – Graduate Enrollment

- 1,441 Graduate Students
  - 904 Master’s
  - 514 PhD
  - 23 Non-Degree
- 26.6% Female
- 4.3% Domestic URM
- 60.7% International
- 4.9% Online

One of the World's 25 Most-Accessed Dissertations and Theses of 2 Million Full-Text Graduate Works

Dr. Antonio Velazquez
Civil Engineering Graduate
Dept. Civil & Environmental Engineering
Michigan Technological University
Advisor: Dr. Andrew Swartz

Dissertation Title: Model updating and structural health monitoring of horizontal and wind turbines via advanced spanning finite element methods and stochastic subspace identification methods.
Dr. Craig Friedrich was elected Fellow of ASME in recognition of his significant lifetime engineering accomplishments.

Dr. Nina Mahmoudian was featured as one of the 2016 Emerging Scholars by Diverse: Issues in Higher Education.

Dr. Mahdi Shabakhti received the 2016 SAE Ralph R. Teetor Educational Award.
Dr. Dave Reed provided the Board with the following report.

Sponsored Program Summary
Unaudited FY16 Activities
October, 2016

David Reed
Vice President for Research

Outline

• Sponsored Awards, Unaudited FY16
• Research Expenditures, Unaudited FY16
• Intellectual Property/Commercialization, Unaudited FY16
• Corporate Sponsorship, Unaudited FY16
Sponsored Awards, Unaudited FY16

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<td>-26.9%</td>
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</tbody>
</table>

Research Expenditures, Unaudited FY16

<table>
<thead>
<tr>
<th>College/School Division</th>
<th>FY15 E</th>
<th>FY16 E</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>2,862.711</td>
<td>2,863.565</td>
<td>284,256</td>
<td>12.0%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>26,880.227</td>
<td>27,049.999</td>
<td>1,169,288</td>
<td>6.8%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>16,823.212</td>
<td>16,351.314</td>
<td>4,839,899</td>
<td>5.0%</td>
</tr>
<tr>
<td>College of Human &amp; Social Sciences</td>
<td>384,649</td>
<td>356,231</td>
<td>-28,418</td>
<td>-7.3%</td>
</tr>
<tr>
<td>College of Business &amp; Economics</td>
<td>7,076.343</td>
<td>6,870.541</td>
<td>205,732</td>
<td>3.0%</td>
</tr>
<tr>
<td>College of Forest Resources &amp; Environmental Science</td>
<td>7,076.343</td>
<td>6,870.541</td>
<td>205,732</td>
<td>3.0%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>3,020.597</td>
<td>3,020.597</td>
<td>0.000</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>72,638.743</td>
<td>69,629.427</td>
<td>3,009,316</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
Research Expenditures, Unaudited FY16

![Graph showing research expenditures from FY1992 to FY2017.]

Intellectual Property, Unaudited FY16

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>+/- %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures Received¹</td>
<td>32</td>
<td>33</td>
<td>-3%</td>
</tr>
<tr>
<td>Nondisclosure Agreements</td>
<td>111</td>
<td>116</td>
<td>-4%</td>
</tr>
<tr>
<td>Patents Filed or Issued²</td>
<td>17</td>
<td>17</td>
<td>0%</td>
</tr>
<tr>
<td>License Agreements</td>
<td>20</td>
<td>11</td>
<td>82%</td>
</tr>
<tr>
<td>Gross Royalties²</td>
<td>301,120</td>
<td>255,051</td>
<td>18%</td>
</tr>
</tbody>
</table>
Enrollment Report

Dr. Les Cook provided the Board with the following report.
New student applications

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG applications</td>
<td>6,106</td>
<td>6,367</td>
<td>+261/4%</td>
</tr>
<tr>
<td>Grad applications</td>
<td>4,847</td>
<td>4,921</td>
<td>+74/3%</td>
</tr>
<tr>
<td>Total</td>
<td>10,953</td>
<td>11,288</td>
<td>+335/3%</td>
</tr>
</tbody>
</table>
It's #iheartMTU week. We love our Huskies. What do you love about Michigan Tech?

Thank you.

Thank you.
B. Audit and Finance Committee Report

Mr. Bob Jacquart reported that the Audit and Finance Committee has met three times since the last board meeting and the majority of the meetings have been focused on the Five-Year State Capital Outlay Plan that we need to submit to the State. The Capital Outlay Plan was a complex issue and the Committee saw great camaraderie and team effort and emphasis by the group. Mr. Jacquart was amazed on how they took something very complex and made it work for all, as we followed the vision and kept focused on the strengths of Michigan Tech. The Audit and Finance Committee will be coming to the Board with support for the Five-Year Capital Outlay Plan and FY2018 Capital Project Request later in the agenda.

The external auditors, represented by Randy Morse, a principal within the Andrews Hooper & Pavlik firm presented the fiscal year 2016 financial statements. The audit presentation included the audit process itself and the Internal Control and Management Letter. The University and the MTF received clean audit opinions. After the report, the Board members that are also members of the Audit and Finance Committee went into executive session to ask more questions and were satisfied with the results.

Other items the Audit & Finance Committee discussed and reviewed:

- Capital Projects Update
- Non-Mandatory Transfers greater than $500k
- Annual Report on Continuous Improvement Using Lean Principles
- Potential Real Property Disposal
Treasurer’s Report

Ms. Julie Seppala provided the Board with the following report.

Overview

- Condensed Statement of Net Position
- Condensed Statement of Revenues, Expenses & Changes in Net Position
- Current Fund Projected Revenues & Expenses
- Cash Balances Chart
### Balance Sheet
**Condensed Statement of Net Position**
*As of June 30, 2016*
*(unaudited in thousands)*

<table>
<thead>
<tr>
<th></th>
<th>University</th>
<th>Tech Fund</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Assets</td>
<td>$ 42,190</td>
<td>$ 3,181</td>
<td>$ 45,371</td>
</tr>
<tr>
<td>Noncurrent Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Assets, net</td>
<td>$236,693</td>
<td>-</td>
<td>$236,693</td>
</tr>
<tr>
<td>Other Noncurrent Assets</td>
<td>$70,747</td>
<td>$190,891</td>
<td>$261,638</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$349,636</td>
<td>$194,172</td>
<td>$543,808</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Pension Expenses</td>
<td>$4,642</td>
<td>-</td>
<td>$4,642</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$4,642</td>
<td>-</td>
<td>$4,642</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>$31,084</td>
<td>$877</td>
<td>$32,011</td>
</tr>
<tr>
<td>Other Liabilities</td>
<td>$156,692</td>
<td>$4,816</td>
<td>$159,508</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>$185,766</td>
<td>$5,763</td>
<td>$191,529</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Pension Expenses</td>
<td>$300</td>
<td>-</td>
<td>$300</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$300</td>
<td>-</td>
<td>$300</td>
</tr>
<tr>
<td><strong>Net Position</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments in capital assets, net of related debt</td>
<td>$165,580</td>
<td>-</td>
<td>$165,580</td>
</tr>
<tr>
<td>Other net position, restricted and unrestricted</td>
<td>$12,532</td>
<td>$128,427</td>
<td>$140,959</td>
</tr>
<tr>
<td><strong>Total Net Position</strong></td>
<td>$188,112</td>
<td>$128,427</td>
<td>$316,539</td>
</tr>
</tbody>
</table>

---

### Income Statement
**Condensed Statement of Revenues, Expenses and Changes in Net Position**
*As of June 30, 2016*
*(unaudited in thousands)*

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Revenues</strong></td>
<td></td>
</tr>
<tr>
<td>Student Tuition and fees</td>
<td>$91,129</td>
</tr>
<tr>
<td>Grants and contracts</td>
<td>$46,215</td>
</tr>
<tr>
<td>Educational Activities</td>
<td>$6,063</td>
</tr>
<tr>
<td>Department Activities</td>
<td>$6,646</td>
</tr>
<tr>
<td>Student Residence fees</td>
<td>$15,531</td>
</tr>
<tr>
<td><strong>Total Operating Revenues</strong></td>
<td>$177,124</td>
</tr>
<tr>
<td><strong>Operating Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
<td>$121,656</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>$58,620</td>
</tr>
<tr>
<td>Student Financial support</td>
<td>$6,438</td>
</tr>
<tr>
<td>Supplies, Services &amp; other</td>
<td>$71,922</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>$238,040</td>
</tr>
<tr>
<td><strong>Non Operating Revenues</strong></td>
<td>$62,290</td>
</tr>
<tr>
<td><strong>Other Revenues</strong></td>
<td>$7,785</td>
</tr>
<tr>
<td><strong>Change in Net Position</strong></td>
<td>$2,154</td>
</tr>
<tr>
<td><strong>Net Position, Beginning</strong></td>
<td>$294,085</td>
</tr>
<tr>
<td><strong>Net Position, End</strong></td>
<td>$306,249</td>
</tr>
</tbody>
</table>
External Auditor’s Report

Mr. Randy Morse, a principal within the Andrews Hooper & Pavlik firm presented the fiscal year 2016 financial statements. This was the firm’s first audit with Michigan Tech and he reported that his team had a good working relationship with Michigan Tech and the audit went well. Mr. Morse had an in-depth conversation with the Audit and Finance Committee yesterday and went through all the details at that time. Michigan Tech has received an unmodified opinion, which is the best you can receive and also there are no significant deficiencies in internal control, no material weaknesses. As far as the federal expenditure audit, Michigan Tech will receive an unmodified opinion on compliance which is the best you can have. His firm also completed the audit for the Michigan Tech Fund and everything went well during that audit with good results.
C. Leadership Committee

Mr. Terry Woychowski reported on behalf of the chair of the Leadership Committee, Bill Johnson, who could not attend the formal session. The Leadership Committee has reviewed the seven goals that constitute President Mroz’s “at risk” annual incentive plan for FY2016 and have talked about their calculations for the “at risk” incentive compensation. This will be further discussed during the closed session for the periodic personnel evaluation of President Mroz.

V. CONSENT AGENDA

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees approve and adopt the items contained in the Consent Agenda.

V-A. Approval of Minutes

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the minutes of the formal session of August 4, 2016, as distributed to the Board, be approved.

V-B. Degrees in Course

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees approves the awarding of the degrees as specified, to each of the candidates listed, and offer congratulations.
Bachelor of Arts in Theatre and Electronic Media Performance
Kathryn Elizabeth Van Gysel - Summa Cum Laude

Bachelor of Arts in English
Lilian Antonia Soren

Bachelor of Arts in Sound Design
Andrew John Dietl

Bachelor of Science in Accounting
Erik Colton Oning

Bachelor of Science in Accounting
Kenneth F. Amst

Bachelor of Science in Accounting
James Philip Burrows - Magna Cum Laude

Bachelor of Science in Finance
Kendall E. Ward - Summa Cum Laude

Bachelor of Science in Management
Chenlin Wu

Bachelor of Science in Management
Cecil William Kennedy

Bachelor of Science in Civil Engineering
Emilia Terezbaeva

Bachelor of Science in Biomedical Engineering
Nicholas S. Rinjek

Bachelor of Science in Civil Engineering
Kiyaxu Fu

Bachelor of Science in Chemical Engineering
Margaret Mae Krueke

Bachelor of Science in Civil Engineering
Jacob William Daniel Logan - Magna Cum Laude

Bachelor of Science in Chemical Engineering
Tyler L. Vance

Bachelor of Science in Chemical Engineering
Rachael Michelle White

Bachelor of Science in Chemical Engineering
He Xuan

Bachelor of Science in Chemical Engineering
Kyle Richard Bronner

Bachelor of Science in Computer Engineering
Michael Martin Fassbender

Bachelor of Science in Computer Engineering
Zachary Dalton Otis

Bachelor of Science in Computer Engineering
Nicholas Patrick Stoll - Cum Laude

Bachelor of Science in Computer Engineering
Zachary E. Stull

Bachelor of Science in Computer Engineering
Paul Christopher Bristolf

Bachelor of Science in Computer Engineering
Travis R. Fenechita

Bachelor of Science in Computer Engineering
Nicholas David Oxbahan - Cum Laude

Bachelor of Science in Computer Engineering
Noah J. Payne

Bachelor of Science in Electrical Engineering
Jonathan Patrick Winegar

Bachelor of Science in Electrical Engineering
Jared Raymond Bender

Bachelor of Science in Electrical Engineering
Andrew Jamin Jones

Bachelor of Science in Electrical Engineering
Nicholas A. Karzah

Bachelor of Science in Electrical Engineering
Jacob Robert Marshall

Bachelor of Science in Electrical Engineering
Patrick Aiken Rice

Bachelor of Science in Electrical Engineering
Charles Quinno Stohe

Bachelor of Science in Environmental Engineering
Hayden Matthew Henderson

Bachelor of Science in Geological Engineering
Laura Claire O'Connor

Bachelor of Science in Mechanical Engineering
Michael Robert E. Guberski

Bachelor of Science in Mechanical Engineering
Adam Joseph Goudreau

Bachelor of Science in Mechanical Engineering
Travis Alexander Graham

Bachelor of Science in Mechanical Engineering
Terry F. Greene

Bachelor of Science in Mechanical Engineering
Riley Joseph Hahn

Bachelor of Science in Mechanical Engineering
Luke C. Heftel

Bachelor of Science in Mechanical Engineering
Tessa Rea Jagger

Bachelor of Science in Mechanical Engineering
Lawrence Patrick Jolly

Bachelor of Science in Mechanical Engineering
Kevin M. Lawder

Bachelor of Science in Mechanical Engineering
Sierra Kay Lundstedt

Bachelor of Science in Mechanical Engineering
Owen Richard Martalista - Cum Laude

Bachelor of Science in Mechanical Engineering
Bethany L. Schaefer

Bachelor of Science in Mechanical Engineering
Emily Louise LaPine

Bachelor of Science in Materials Science and Engineering
Nicholas K. Miyano

Bachelor of Science in Materials Science and Engineering
Michael Cristo Oyaguilides

Bachelor of Science in Materials Science and Engineering
Marc Alvin Hoffman

Bachelor of Science in Materials Science and Engineering
Autumn Marie Charnoff

Bachelor of Science in Materials Science and Engineering
Dellita Naomi Limbala - Cum Laude

Bachelor of Science in Materials Science and Engineering
Madison Kay Verbeke

Bachelor of Science in Chemistry
Rachel Ann Wilkenburg - Magna Cum Laude

Bachelor of Science in Computer Science
Brian Paul Fisk

Bachelor of Science in Computer Science
Joshua George Barker
Michigan Technological University
Degrees Awarded for Conferent Term 2016-2017

Bachelor of Science in Exercise Science
Katherine Michele Miller

Bachelor of Science in Audio Production and Technology
Zachary J. Strauss

Bachelor of Science in Theatre and Entertainment Technology
Adam Matthew Marshall

Bachelor of Science in Mathematics
Jacob Allen Heig

Bachelor of Science in Biochemistry and Molecular Biology
Kyle Stephen Glaeser

Bachelor of Science in Medical Laboratory Science
Trenton Peter Pest

Bachelor of Science in Psychology
Ayanna Chareyovaya

Bachelor of Science in Software Engineering
Misael Daniel Kempf

Bachelor of Science in Statistics
Steven Henry George Tracey

Bachelor of Science in Electrical Engineering Technology
Mitchell Dean Tehlirian

Bachelor of Science in Mechanical Engineering Technology
Kyle Matthew Chomic

Bachelor of Science in Management Information Science
Zin P. Schaub

Bachelor of Science in Business Administration
Shivam Bharti

Master of Science in Business Administration
Paul Henry Kasopala

Master of Science in Aerospace Engineering
Joseph Timas Latendresse

Master of Science in Civil Engineering
Jari William Sague

Master of Science in Data Science
Krisen Julia Thamman

Master of Science in Geographical Information Science
Luo Yang

Master of Science in Mechanical Engineering
Jieun Wang

Master of Science in Geographical Information Science
Brian William Doughty

Master of Science in Geographic Information Science
Jing Feng

Master of Science in Accounting
Zachary David Fredriksen

Master of Science in Accounting
Yiyuan Wu

Master of Science in Information Science
Wenye Xu

Master of Science in Business Administration
Nebih Xu

Master of Science in Industrial Engineering
Cheng Zhang

Master of Science in Biomedical Engineering
Sterling Kishast Prince

Master of Science in Civil Engineering
Shi Dada Aditya Varadhan Gnanam

Master of Science in Civil Engineering
Amaneesh Esham Ketkar

Master of Science in Electrical Engineering
Andrew Barry Groovey

Master of Science in Electrical Engineering
Thomas Justin Kendrick

Master of Science in Electrical Engineering
Ali Aghbazi

Master of Science in Electrical Engineering
Greeshma Ailash

Master of Science in Electrical Engineering
Ruhia Satch Bhoipahnda

Master of Science in Electrical Engineering
Saurabh Bhutia

Master of Science in Electrical Engineering
Manikantha Darda

Master of Science in Electrical Engineering
Sivana Fenodhico Aizi

Master of Science in Electrical Engineering
Shanlia Guo

Master of Science in Electrical Engineering
Thierry Ngam Ngassa

Master of Science in Electrical Engineering
Joseph Anthony Pialecur

Master of Science in Electrical Engineering
Masoud Usdin Saleh

Master of Science in Electrical Engineering
Ashish Pasha Sheikh

Master of Science in Electrical Engineering
Nima Taherkhani

Master of Science in Environmental Engineering
Jayas Raghavendra Anan Kumar Yellogosa

Master of Science in Environmental Engineering
Rebeca Lara Green

Master of Science in Environmental Engineering
Malika Khare

Master of Science in Environmental Engineering
Sara M Kiehl

Master of Science in Environmental Engineering
Rebecca Consiene Midoff

Master of Science in Environmental Engineering
Jasmine Dye Miller

Master of Science in Geology
Hongyi Lin

Master of Science in Geology
Nicole Marie Staple

Master of Science in Geological Engineering
Teresa Munoz Martinez
Michigan Technological University
Degrees Awarded for Conferral Term 2016-17

Master of Science in Geology
Lindsay Ann Davis
Jordan Anthony Mayer
Ashley E. Miller
Jordan Paul Van Sickle

Master of Science in Geophysics
Charles Isaac Breithaupt
Hamza Chao
Musu Cetina
Adnan Djeffal
Enaw Degbikiri
Umair Sahan Khan
Fatmanur Karaman
Ceyda Karaman
Onur Emre Uygur
Mengchu Xia

Master of Science in Mechanical Engineering
Jayant Kumar Arora
Sharat Rayat Bharat
Abhishek Rai Eni Pradeep
Abayomi A Famisoye
Sakthi Gopal
Erik Arthur Godtfredsen
Halipapar Ragavari Ranganath Vedanthi Iyengar
Rohan Milind Kalurkar
Kausik Kannan
Naga Rithilie Teja Kondapalli
Zongjie Liu
Rene Radhakrishna Merchant
Grant Joseph Oasti
Rohit Rajabhau Pawale
Ashijith Gop Philip
Laikshmi Natesan blessing Ramanuj
Negendra Gajendra Tammella
Abhishek Thayaparaman
Saumitra Verma
Aarya Yadavini
Xucheng Zhu

Master of Science in Materials Science and Engineering
Rebert E Gil-Figueroa
Prasad Prem Soman
Yan Xu

Master of Science in Forest Molecular Genetics and Biotechnology
Michael Azizi

Master of Science in Applied Cognitive Science and Human Factors
Hannah Bosserer
Alexander Simon Van Der Meer

Master of Science in Biological Sciences
Diane Marie Nelson

Master of Science in Computer Science
Abhishek Kantamneni
Timothy Ryan Ward

Master of Science in Kinesiology
Caycik Nicole Bray
Kathryn Rose Carter

Master of Science in Mathematical Sciences
Mustafa Aygul
Dilak Ertikmen
Anna Elizabeth Pascoe

Master of Science in Physics
Teresa Ann Wilson

Master of Science in Medical Informatics
Tugce Kink
Timothy A Van Wagner

Doctor of Philosophy in Biomedical Engineering
Kostas Katsaros

Doctor of Philosophy in Civil Engineering
Abdulsalit Mohammad Salama
Zhang Wang
Hu Yao

Doctor of Philosophy in Electrical Engineering
Marco La Manna
Yang Liu

Doctor of Philosophy in Geological Engineering
Lauren N Schaefer

Doctor of Philosophy in Materials Science and Engineering
Jyothi G. Grammnl
Bing Han
Michigan Technological University
Degrees Awarded for Conferral Term 201605

Antonella Sue Haseltun
Daniel Joel Lee
Iloris Young
Yue Yu
Chenlong Zhang
Guy Charles Hembree
Ameer Haseeb Tahat
Joshua Colin Davis
Hadi Ashayesh Abdalkareem
Sreebru N Pale
Moyeen Quarmara
Craig David Reynolds

Doctor of Philosophy in Computer Science
Nan Zhang

Doctor of Philosophy in Mechanical Engineering - Engineering Mechanics
Hadi Ashayesh Abdalkareem
Sreebru N Pale
Moyeen Quarmara
Craig David Reynolds

Doctor of Philosophy in Applied Cognitive Science and Human Factors
Weili Zhang

Doctor of Philosophy in Biological Sciences
Robert Arif Fawzy

Doctor of Philosophy in Computer Science
Hadi Ashayesh Abdalkareem
Sreebru N Pale
Moyeen Quarmara
Craig David Reynolds

Doctor of Philosophy in Environmental and Energy Policy
Ashok Vaidehi

Doctor of Philosophy in Mathematical Sciences
Ashok Vaidehi

Doctor of Philosophy in Engineering Physics
Ran Duan

*Addendum to Conferral: Degree awarded in term 201601

Michigan Technological University Student Records and Registration 23-SEP-16 10.32.00 AM
V-C. Gifts

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees acknowledges the gifts to Michigan Technological University.

---

V-D. Resignations, Retirements and Off Payroll

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees accepts the resignations and confirms the off payroll determinations.
# BOARD OF TRUSTEES OFF-PAYROLL REPORT
(July 16, 2016 – September 17, 2016)

## RETIRED

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck, Donald R.</td>
<td>Faculty</td>
<td>Physics</td>
<td>Professor</td>
<td>12/01/90</td>
<td>09/12/16</td>
</tr>
<tr>
<td>Billich, Linda S.</td>
<td>Staff</td>
<td>Financial Services &amp; Operations</td>
<td>Financial Associate</td>
<td>07/01/12</td>
<td>09/22/16</td>
</tr>
<tr>
<td>Jayaraman, Gopal</td>
<td>Faculty</td>
<td>Mechanical Engineering-Engineering Mechanics</td>
<td>Professor</td>
<td>03/06/64</td>
<td>09/19/16</td>
</tr>
<tr>
<td>Johnson, Mark T.</td>
<td>Staff</td>
<td>Merchandising Operations</td>
<td>General Manager, Merchandising Operations</td>
<td>04/06/64</td>
<td>09/05/16</td>
</tr>
<tr>
<td>Lewandowski, Dennis T.</td>
<td>Faculty</td>
<td>Mathematical Sciences</td>
<td>Senior Lecturer</td>
<td>09/03/61</td>
<td>09/12/16</td>
</tr>
<tr>
<td>Matia, Bruce J.</td>
<td>Faculty</td>
<td>Materials Science and Engineering</td>
<td>Professor</td>
<td>12/11/77</td>
<td>09/30/16</td>
</tr>
<tr>
<td>Voitle, Machiko</td>
<td>Faculty</td>
<td>Mechanical Engineering-Engineering Mechanics</td>
<td>Associate Professor</td>
<td>11/19/94</td>
<td>09/31/16</td>
</tr>
<tr>
<td>Vlamin, Carl R.</td>
<td>Faculty</td>
<td>Mechanical Engineering-Engineering Mechanics</td>
<td>Associate Professor</td>
<td>08/26/79</td>
<td>09/12/16</td>
</tr>
</tbody>
</table>

## OFF-PAYROLL

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bakiras, Spiroton</td>
<td>Faculty</td>
<td>Computer Science</td>
<td>Associate Professor</td>
<td>08/17/15</td>
<td>08/14/16</td>
</tr>
<tr>
<td>Biar, Julia A.</td>
<td>Staff</td>
<td>Social Sciences</td>
<td>Project Coordinator</td>
<td>05/01/15</td>
<td>09/12/16</td>
</tr>
<tr>
<td>Blake, Jeffrey F.</td>
<td>Staff</td>
<td>Information Technology</td>
<td>Senior Network Administrator II</td>
<td>12/14/97</td>
<td>09/24/16</td>
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<tr>
<td>Coens, Maryann R.</td>
<td>Faculty</td>
<td>Social Sciences</td>
<td>Assistant Professor</td>
<td>09/17/15</td>
<td>09/15/16</td>
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<tr>
<td>Choi, Seokwoo</td>
<td>Faculty</td>
<td>Mathematical Sciences</td>
<td>Visiting Assistant Professor</td>
<td>09/18/14</td>
<td>09/12/16</td>
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<tr>
<td>Gao, Chunming</td>
<td>Faculty</td>
<td>School of Technology</td>
<td>Assistant Professor</td>
<td>12/12/05</td>
<td>09/14/16</td>
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<tr>
<td>Gepta, Mohesh</td>
<td>Faculty</td>
<td>Mechanical Engineering-Engineering Mechanics</td>
<td>Professor</td>
<td>09/28/94</td>
<td>09/11/16</td>
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<tr>
<td>Heinonen, Randy P.</td>
<td>Staff</td>
<td>Office of Advancement</td>
<td>Director, Athletic partnerships &amp; Annual Giving</td>
<td>02/12/06</td>
<td>07/29/16</td>
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<tr>
<td>Hoppe, Paul D.</td>
<td>Staff</td>
<td>Corporate Partnerships</td>
<td>Associate Director, Research &amp; Industry Development</td>
<td>05/11/15</td>
<td>09/06/16</td>
</tr>
<tr>
<td>Huhala, Ronald P.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Electrician</td>
<td>10/07/02</td>
<td>09/23/16</td>
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<tr>
<td>Khan, Muhammad A.</td>
<td>Faculty</td>
<td>Humanities</td>
<td>Instructor</td>
<td>08/17/15</td>
<td>09/13/16</td>
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<tr>
<td>Lehman, William E.</td>
<td>Staff</td>
<td>Ticketing</td>
<td>Office Assistant III</td>
<td>08/30/11</td>
<td>07/23/16</td>
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<tr>
<td>McMillan, Travis J.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Shuttle Bus Driver</td>
<td>01/17/13</td>
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<tr>
<td>Mouw, Colleen B.</td>
<td>Faculty</td>
<td>Geological &amp; Mining Engineering &amp; Sciences</td>
<td>Assistant Professor</td>
<td>09/20/12</td>
<td>09/12/16</td>
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<td>Nenkervis, William C.</td>
<td>Staff</td>
<td>Information Technology</td>
<td>Assistant Director of Telecommunications</td>
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<td>09/14/16</td>
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<td>Park, James R.</td>
<td>Staff</td>
<td>Memorial Union</td>
<td>Food Service Helper</td>
<td>09/26/16</td>
<td>09/22/16</td>
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<td>Quinby, Patrick D.</td>
<td>Staff</td>
<td>Materials Science and Engineering</td>
<td>Laboratory/Demonstration Coordinator</td>
<td>01/06/07</td>
<td>07/29/16</td>
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<tr>
<td>Richard, Courtney A.</td>
<td>Staff</td>
<td>Center for Pre-College Outreach</td>
<td>Coordinator, Center for Pre-College Outreach</td>
<td>09/19/12</td>
<td>09/03/16</td>
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<tr>
<td>Tynell, Colin W.</td>
<td>Staff</td>
<td>Great Lakes Research Center</td>
<td>Marine Operations Specialist</td>
<td>09/01/13</td>
<td>09/06/16</td>
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<tr>
<td>Valezuzea, John.</td>
<td>Staff</td>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>Senior Research Scientist I</td>
<td>01/11/10</td>
<td>07/30/16</td>
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<td>Viguier, Audrey S.</td>
<td>Faculty</td>
<td>Humanities</td>
<td>Lecturer</td>
<td>08/18/14</td>
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<td>Wagenbrenner, Joseph W.</td>
<td>Faculty</td>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>Assistant Professor</td>
<td>08/19/13</td>
<td>09/12/16</td>
</tr>
</tbody>
</table>
V-E. 2017 Meeting Dates

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees approves the meeting dates as presented.

- Friday, February 24, 2017
- Friday, April 28, 2017 (Commencement – Saturday, April 29)
- Thursday, August 3, 2017 (Alumni Reunion)
- Friday, October 20, 2017 (Homecoming)
- Friday, December 15, 2017 (Commencement – Sat., December 16)

VI. ACTION/DISCUSSION ITEMS

VI-A. Employee Recognition

It was moved by P. Ollila, supported by L. Kennedy, and passed by voice vote without dissent that the Board of Trustees adopts the Resolution in Appreciation for the following individuals:

- Dr. Donald Beck – 36 years of service
- Dr. Bruce Pletka – 39 years of service
- Dr. Carl Vilmann – 37 years of service

VI-B. Honorary Degree

The Administration is recommending the Mr. Keith Creagh be awarded an Honorary Doctorate of Philosophy degree.

Keith Creagh is Director of the Michigan Department of Natural Resources. He was appointed director in July 2012 after serving as director of the Michigan Department of Agriculture and Rural Development (MDARD) since January 2011. Mr. Creagh also served as interim Director for the Department of Environmental Quality for a brief period this past year.

Mr. Creagh’s service with state government began in 1974 and has included a wide range of positions with MDARD during his tenure, including land use deputy director with the Departments of Natural Resources and MDARD, where he coordinated a multi-agency implementation plan in response to the recommendations from the Governor-appointed Michigan Land Use Leadership Council. He has provided leadership for the Farm Bill and conservation programs, which brought together conservation organizations, state and federal agencies, and local conservation districts to establish conservation practices in the state. His background also includes working closely with stakeholder groups, federal agencies, the state legislature and U.S. Congress.
Keith Creagh has a bachelor of science degree in forestry from Michigan Tech. He has been a member of the Michigan Tech Forestry Advisory Board; has been awarded the Forestry Outstanding Alumni Award and has been inducted into the Forestry Honor Academy.

Mr. Creagh will be the Fall Commencement speaker.

It was moved by R. Jacquart, supported by T. Baldini, and passed by voice vote without dissent, that the Board of Trustees approves the awarding of an Honorary Doctorate of Philosophy degree to Mr. Keith Creagh.

VI-C. Board of Trustees Silver Medal

The Board of Trustees Silver Medal is presented to persons who through personal and professional achievement, stand as outstanding examples to our more recent graduates.

The Administration is recommending that the Board of Trustees Silver Medal be awarded to John L. Drake and Norbert J. Verville, Sr.

**John Drake** earned a bachelor’s degree in mechanical engineering from Michigan Tech as well as a master’s degree in business administration. He worked for General Motors and Packard Electric before founding Drake Manufacturing in 1972. Drake Manufacturing manufactures grinders and provides remanufacturing and CNC retrofitting of thread grinders, cylindrical grinders and surface grinders. He has served as a director of the Michigan Tech Fund and is a member of the National Society of Professional Engineers, a Michigan Tech Fund Life Trustee, an Alumni Association Life Member and an Alumni Association Golden M Member. Mr. Drake was inducted into the Michigan Tech ME-EM Academy in 2001.

**Norbert Verville** earned a bachelor’s degree in business administration from Michigan Tech. He began his career with Bucyrus-Erie as a cost accountant and retired from the company as Vice President of Finance and Treasurer. He then went on to work for Impact Engineering Solutions Inc. as Vice President of Operations. Mr. Verville is a Michigan Tech Fund Life Trustee having served many years on the Investment and Finance Committee and he is also an Alumni Association Golden M Member. He is a past member of the Applied Portfolio Advisory Board and School of Business National Advisory Board. He was inducted into the Michigan Tech Business Academy in 1994.

It was moved by L. Kennedy, supported by B. Ryan, and passed by voice vote without dissent, that the Board of Trustees approves the awarding of the Board of Trustees Silver Medal to John L. Drake and Nobert J. Verville, Sr.

VI-D. Melvin Calvin Medal of Distinction

The Melvin Calvin Medal of Distinction is the highest honor bestowed on individuals who have exhibited truly distinguished professional and personal accomplishments and who have been associated with the University.
The administration is recommending Mr. John Opie for the prestigious Melvin Calvin Medal of Distinction.

John Opie graduated from Michigan Tech with a bachelor’s degree in Metallurgical Engineering in 1961. He delivered Tech’s commencement address in 1987 and again in 2001, receiving Honorary Doctorates in Engineering and Business. He spent most of his career with General Electric, retiring in 2000 as vice chairman/executive director.

Mr. Opie has been awarded the Board of Trustees Silver Medal and Distinguished Alumni Award. He is a Michigan Tech Fund Life Trustee, Alumni Association Life member, Alumni Association Golden M Member and a member of the Materials Science and Engineering Academy. In 2009 he was inducted into the Michigan Tech Sports Hall of Fame as he has always been a passionate fan and supporter of Michigan Tech athletics – especially hockey.

John Opie has demonstrated his commitment to Michigan Tech’s students time and time again through his generous gifts.

It was moved by P. Ollila, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees approves the awarding of the Melvin Calvin Medal of Distinction to Mr. John Opie.

VI-E. Five-Year State Capital Outlay Plan and FY2018 Capital Project Request

The Five-Year State Capital Outlay Plan and FY2018 Capital Project Request is required to be submitted to the State of Michigan this fall with Board of Trustees approval.

Chair Woychowski stated that there has been much discussion regarding this proposal and plan from its inception and that the Board had not been in consensus as there were many questions such as is this aligned with our strategic objectives and did everyone understand and support it. After several iterations and the Audit and Finance Committee continuing to work on it, it came out exactly on target as it shows we leverage our strengths as a university and it encourages collaboration and integration among our different departments and we stay focused on being a technological university. It also supports the renovation and revitalization of our buildings.

It was moved by R. Jacquart, supported by B. Ryan, and passed by voice vote without dissent, that the Board of Trustees approves the Five-Year State Capital Outlay Plan and 2018 Capital Project Request to be submitted to the State of Michigan.
Five-Year State Capital Outlay Plan and FY 2018 Capital Project Request

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Name</th>
<th>Gross Sq. Ft. New</th>
<th>Gross Sq. Ft. Renovated</th>
<th>Total Project Cost (000's)</th>
<th>State Funds (000's)</th>
<th>Est. Const. Univ. Funds (000's)</th>
<th>Start/End</th>
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<tr>
<td>1</td>
<td>H-STEM Engineering and Health Technologies Complex – Phase I</td>
<td>63,000</td>
<td>45,000</td>
<td>$39,600</td>
<td>$29,700</td>
<td>$9,900</td>
<td>2018/2021</td>
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<td>2</td>
<td>Integrated Student Maker Spaces</td>
<td>30,000</td>
<td>50,000</td>
<td>$27,000</td>
<td>$20,250</td>
<td>$6,750</td>
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<tr>
<td>3</td>
<td>H-STEM Engineering and Health Technologies Complex – Phase II</td>
<td>100,000</td>
<td>48,000</td>
<td>$74,200</td>
<td>$55,650</td>
<td>$18,550</td>
<td>2020/2023</td>
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Capital Projects Description

1. **H-STEM Engineering and Health Technologies Complex - Phase I**
   The H-STEM engineering and health technologies complex will support Michigan Tech's integrated educational programs that apply engineering and science to improve the human condition. Michigan Tech's STEM-focused niche allows it to contribute to development of human-centered technologies (e.g., therapeutic devices, instruments, sensors, and preventative strategies) through research, development, and education for its students. Research is currently supported by the American Heart and Lung Associations, Gerber Foundation, Portage Health Foundation, National Institutes of Health, and National Science Foundation (among others). The complex will include shared and flexible laboratory spaces, co-located with renovated classrooms and learning/spaces within an existing building (Chemical Sciences and Engineering) that meet current industry standards for safe operation and the training of students. The complex will permit teams of researchers and students from Biomedical Engineering, Chemical Engineering, Mechanical Engineering, Electrical and Computer Engineering, Materials Science and Engineering, Biology, Chemistry, Cognitive and Learning Sciences, Computer Science, and Kinesiology and Integrative Physiology to work together in collaborative space with shared equipment. The estimated cost of $39,600,000 will allow Michigan Tech's engineers and scientists to continue to increase economic prosperity through development of technologies and preparation of the future technological workforce. Research and educational efforts made possible by this complex will complement and add value to activities at other universities as well as care providers throughout the state.

2. **Integrated Student Maker Spaces**
   Maker Spaces are places that engage students (and faculty & staff) of all disciplines in collaborative design and prototyping activities. Michigan Tech's vision for a Maker Space is a central hub of design and innovation; a space that will inspire and support creativity and experiential learning. The Maker Space environment will allow students to design, develop and prototype their ideas through access to a wide range of tools and equipment. Mentorship, collaboration and synergy will uniquely define this space. The total project cost is estimated at $27,000,000 and will include new construction of a central facility, and expansion and renovation of spaces within an existing building.

3. **H-STEM Engineering and Health Technologies Complex – Phase II**
   Phase II of the H-STEM engineering and health technologies complex will include a newly constructed facility and renovation of existing facilities. Phase II will further enable Michigan Tech's growing research and education programs in advanced manufacturing, particularly as related to human-centered engineering and medical devices. Many innovation and engineering challenges related to modern manufacturing involve medical manufacturing, including 3D printing of blended metal/plastics/ceramics for multi-functionality, rapid design through multiple testing cycles, and the embedding of mechatronic systems. Several advancements in manufacturing are on the cusp of disrupting the processes currently employed. Additive and other advanced manufacturing processes are poised to dramatically change how products are made, and changes will cascade upstream to impact product designs. Engineering education will be redefined. The complex will include a visible shared space where teams of students and faculty will together engage in creative solutions to advance manufacturing across Michigan industries. Phase II will continue to create jobs, produce leaders for industries in Michigan, and support University/industry partnerships. The Phase II project will strategically position Michigan Tech to contribute to the growth of high-tech innovation and manufacturing throughout the State. The total project cost is estimated at $74,200,000.
VI-D. Board of Trustees Policy 12.2. Building and Property Rules and Regulations

It is being recommended that this policy be revised to broaden the definition of mobility devices that are not allowed to be brought into university buildings. This proposed revision aligns policy with current practice, and further enhances our safety efforts.

Tom Baldini stated that discussions have taken place regarding storage for student’s equipment within the buildings. The Administration is working on a solution.

It was moved by T. Baldini, supported by R. Jacquart, and passed by voice vote without dissent, that the Board of Trustees amends policy 12.2. Building and Property Rules and Regulations as presented.

The amended policy shall read as follows:

12.2 BUILDING AND PROPERTY RULES AND REGULATIONS

1. Smoking and all tobacco use is prohibited except where approval is granted by the Vice President for Administration.
2. Use or possession of alcoholic beverages is prohibited, unless specifically approved in writing by the President, in accordance with the policy of the Board of Trustees on alcoholic beverages.
3. Solicitation, advertising, or sales on property owned or controlled by Michigan Technological University is prohibited unless authorized by the Vice President for Administration. The exceptions to this are:
   1. Advertising is permitted only on designated bulletin boards, as permitted by, or in other locations, as authorized by the manager of the building in which the advertising occurs.
   2. Student organizations registered with the Vice President for Student Affairs and Advancement may sell tickets or conduct limited sales of goods, advertise, solicit, and use grounds as authorized by the manager of the building or grounds in or on which the activity occurs.
4. Activities or announcements at Michigan Technological University events shall have the prior written approval of the Vice President for Administration or a delegated representative, with the following exceptions:
   1. Announcements regarding the operation of a facility may be authorized by the manager of the building or grounds on which the announcements are made.
   2. Announcements regarding traffic, health, or safety may be authorized by the Department of Public Safety and Police Services.
3. Announcements relating to the game or event in progress may be made over the public address system by the game announcer providing such announcements are appropriate to the situation and in good taste.

5. Distribution of handbills or other printed material is permitted only in designated areas.

6. Unruly behavior will not be tolerated and may be cause for expulsion from the facility.

7. For reasons of health and sanitation, cats, dogs, birds, or other pets or animals are prohibited except as authorized by the Vice President for Administration. The exceptions to this are:
   1. Animals owned or maintained by Michigan Technological University for educational or research purposes after receiving the approval of such facilities by the Provost and Vice President for Academic Affairs.
   2. Animals and aquariums may be kept in University housing facilities after receiving the approval from the Vice President for Student Affairs and Advancement.
   3. Guide, leader, hearing or service animals trained to perform the work or task required by the user's disability when used by a qualified individual with a disability in compliance with State or Federal Law.

8. Bicycles, unicycles, scooters, skateboards, roller or in-line skates, or any other human powered or electrically or mechanically powered wheeled or hovering recreational personal transport or mobility devices, except for personal assistive mobility devices used by a disabled person, shall not be brought into University buildings or ridden, stored, or parked in corridors, stairwells, laboratories, offices, classrooms, or buildings other than in those designated areas in student housing facilities.

9. This policy shall be administered in accordance with rules and procedures established by the Vice President for Administration.

This Policy constitutes a Rule and/or Regulation pursuant to MCL 4.201 et seq. and MCL 752.581 et seq.

VII. INFORMATIONAL ITEMS
   A. Analysis of Investments
   B. University Issued Bond Balances Report
   C. Research and Sponsored Programs Report
   D. Advancement and Alumni Relations Report
   E. Recent Media Coverage
   F. Employee Safety Statistics

VIII. OTHER BUSINESS

There was no other business at this time.
IX. PUBLIC COMMENTS

There were no public comments at this time.

X. INFORMAL CLOSED SESSION FOR REVIEW OF PENDING LITIGATION AND A PERIODIC PERSONNEL EVALUATION OF PRESIDENT MROZ

It was moved by T. Baldini, supported by P. Ollila, and passed by voice vote without dissent, that the Board of Trustees proceed into an informal closed session for review of pending litigation and a periodic personnel evaluation of President Mroz. (A closed session for such a purpose is provided for in Section 8 (a, e) of P.A. 267 of 1976). (A roll call vote is required).

Roll Call Vote:

Baldini – Yes
Fream – Yes
Jacquart – Yes
Kennedy - Yes
Ollila - Yes
Ryan – Yes
Woychowski - Yes

The motion passed.

The Board of Trustees reconvened in open session with a quorum present.

President’s Contract

It was moved by B. Ryan, supported by T. Baldini, and passed by voice vote without dissent, that the Board of Trustees approves the “At Risk” annual incentive bonus for FY2016 for President Mroz at $41,375.

XI. ADJOURNMENT

It was moved by T. Baldini, supported by P. Ollila, and passed by voice vote without dissent, that the meeting be adjourned.

_______________________________________
Secretary of the Board of Trustees

___________________________________  ___________________________________
Chair, Board of Trustees