CALL TO ORDER:

John Borthwick, Academy Chair called the meeting to order at 8:30 A.M. He welcomed everyone. All members/guest introduced themselves around the room.

Those attending were:

John Borthwick, Academy Chair          Wayne Huebner
Chris Ramsay, Vice Chair               Ralph Flori
Bill Martin                           Kurt Oakes
Steve Jung                            John Bartel
Linda Harrell                        Gen Sutton
Harvey Goodman                    Perrin Roller
Ken Gielow                            Phil Wade
Terry Donze                           Bill Tedesco
Delbert Day                           Dianna Tickner
Tim Bradley                          Laura Agee
Mike Moats                           Curt Elmore
Scot Sehlin

Representative of Missouri S&T attending:

Dr. Richard Wlezien, Vice Provost and Dean of Engineering and Computing
Dr. Angela Lueking, Associate Dean of Research, College of Engineering and Computing
Dr. Rebecca Johnson, Executive Director of Development
John Held, Director of Planned Giving, University Advancement Development
Matt Lehmann, Sr. Development Officer, Development
David Borrok, (Alumni) Chairman, Geosciences and Geological and Petroleum Engineering
Dr. Kwame Awuah-Offei, Interim Chairman, Mining and Nuclear Engineering
Judy Russell, Office Support Assistant IV (Administrative Assistance), Mining and Nuclear Engineering

John Borthwick spoke briefly – opening the floor for the discussion of the Spring 2018 Mines and Metallurgy Academy minutes. Delbert Day made motion to approve minutes; then seconded by Harvey Goodman. The minutes were approved unanimously without changes.

John also opened the discussion of recent events with Braden Lusk leaving and taking another position in the industry. There was a teleconference with the executive committee, then later a few members reached out to Dean Wlezien to present concerns regarding what might happen to the Mining and Nuclear Engineering Department.

Wayne Huebner assisted John with summary of the recent events:

- A lot of people unhappy in relation to Braden Lusk departure.
- Alumni, faculty, students and industry was all very happy with Braden’s leadership. Braden had the perfect balance for the teaching and research.
- Friction had developed between the Dean Wlezien and Braden.
- Industry seek Braden out; which led to the departure.
- Executive Committee became aware of the news. This academy takes leadership and guidance very seriously. Executive Committee reached out to the Dean. In this teleconference; positive words were exchanged regarding the future.
The Dean will be visiting later on today; we can ask him more questions.

**PATH FORWARD open discussion:**

Dianna Tickner had noted from an INFO MINE Adds – regarding the search for a Mining Ventilation Faculty position, but the add read as non-tenured track. This opened concerns in the room – why a Non-Tenure track??

Members shared that we need to have well educated Ventilation person(s) apply. MNE unclear where or what is happening.

**Chris Ramsay attended the Academy President's Breakfast (Oct 12, 2018):**

Chris shared with the member that there was a Panel that consisted of the Provost, Chancellor, Research Vice Provost and Dean

- How to grow research
- Non-Tenure vs Distance courses
- Increase Masters possible by satellite
- Distance Master Programs vs the research revenue
- Online programs make a high impact in the industry

**Tim Bradley is a member of the Board of Trustee's and discussed a recent meeting with President Choi.**

Items that were discussed:

- Funding from the State has gone down three years in a row – now finding the survival mode
- Envisioning more coordination with each campus, promote Distance Learning, Research, and Consolidation
- Dr. Choi has earned respect with the legislator
- He knows our graduation numbers vs another university
- The system announced $260 million to cover various investment for strategic priorities over the next five years. This does include new scholarships, support research and with other items on the table. This will be matching dollar.
- Chancellor Schrader had a very different vision
- Five Missouri Compacts:
  - Excellence in Student Success
  - Excellence in Research and Creative Works
  - Excellence in Engagement and Outreach
  - Inclusive Excellence
  - Excellence in Planning, Operations and Stewardship
- Merit base process that can resolute increases

**College of Engineering and Computing Q&A Session – Dean Dr. Richard Wlezien**

- Teleconference Review with open discussion – no slides
- Studying-data analyze
• Why Mining and Nuclear together when they don’t have nothing in common
• What alignment could be a better fit for success
• Research $ is weak – less successful
• Nuclear – investing to get them to a better facility
• Chemical has one of the best facilities – not thriving- faculty problems
• Mining department will not disappear
• Single tenure process between Mining and Nuclear
• Chemical Dept speaking with Nuclear – has it happened yet – still pending
• Looking at the Mining Department Chair
  • Mining & Explosive Department?
  • Mining with the GGPE?
• We don’t want to lose the identity for Mining
• Industry scratching their heads- why is this happening
• Want to make
  • Is there a plan for the Department chair or for Chemical Engineering Chair?
  • Dr. Kwame Awuah-Offei and Dr. “Hank” Lee doing very well
• Two departments in Chemical: Biology strong energy- Nuclear heading the same way
• Research dollar over past 15-20 years /state decreasing their funding
• We are focused to be a strong Graduate University / Undergraduate brings in tuition dollars that helps the other programs
• David Steelman (MU graduate) states that we need to do more Research
• Dollar per Tenure vs NTT
• We put out more PhD per dollar
• Mining does very poor in Research
• The Dean wants the Academy to state what they want to see.
• Making sure there are fluent English speaking teachers/professors moving forward in the future.
• The Dean stated that he will make the corrections for the advertising for the Vent Faculty Search for a Tenure track especially for ABET.

**Dr. Angela Lueking Associate Dean of Research, College of Engineering and Computing**

spoke about how to become stronger. There are upcoming programs such and RARE Programs with National Science Foundation (NSF). Also how to build our strength with other research. Possible go out on sabbatical for a semester with Industry. Need to develop programs thinking outside the box. Help develop the Mid-Career Faculty. Do more Masters with International collaboration. General outcome to education, mentoring program, a win program.

**Executive Committee Reports:**
Strategic Planning Committee:

Kurt Oakes, Committee Chairman gave an overall update for discussion.

Conference Call held on 10/5/2018
- 8 members of the Strategic Planning Committee took part
- Topics discussed;
  - White Paper Update
    - Any more / Any less
    - How can we spread and inform influencers
  - Legislative Engagement
    - Develop Contact Lists
      - Engage state mining and natural resource associations
      - Reach out to our local legislators – Representatives, and Senators
  - Data Mining
    - Work on a % of Funding Breakdown in further detail
    - Department by Department Breakdown of Funding and Support
  - Tim Bradley gave an update on the recent Board of Trustees Meeting and the University of Missouri System Strategic Plan put forth by Dr. Choi – Will be discussed at the Fall Meeting in depth.
  - Recent discussions for development of a Tunneling Rescue Skills Training and Rescue Competition have been brought to light. Support from the industry segment, and manufacturers who support that industry. Was brought to MO S&T's attention due to status we have in Mine Rescue, and the facilities we currently have in place.

Discussion on the DRAFT White Paper comments and Feedback

- ".....page two stats could be reduced to 2-3 sentences stating that the MMA departments represent about 15-16% of the enrollment and budget for the campus, however these departments graduate students with salaries of $65+k (5% higher than the university average); attract 50% more women than the average for the college of engineering and computing, 2-3 times as many out of state, and international students than the campus average (percentage basis); and contributes over one fourth of the research funding for the campus. I think we should convey our strong points but I think we may appear as over selling at the expense of the rest of the campus. Also, I think our alumni contribute more on a comparative basis."
- Eliminate the Acronyms....Ease of Understanding
- Edited doc provided... Thank You!
- The numbers don't lie - MMA is a force to be reckoned with on campus and in the state! Nice work!
- That looked pretty good. The only thing I could say about it is that we probably should not be using "museum" in referring to the mineral plans. That is because I found out that there is a whole lot of baggage that comes with using that term in the way of requirements for being certified as a museum. So, how about "mineral and mining heritage center?" Not a big deal, but...Thanks for your astute efforts!
- I don't really have anything to add, but would like to say that this is extremely valuable information, and provides a great overview of the importance of the M&M programs to the University, our nation and the world.
- Makes me proud to be a Miner...
- One thing that would be helpful on the attachment would be an acronym legend at the bottom somewhere (i.e. CEC, CASB, etc)...
- Thanks for your effort to consolidate this information! I missed the last meeting, so I am anxious to see where this is going! I have a few comments:
- Page 2 – General Revenue (typo)
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Havener Center
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- It seems like nearly all of the "beneficial data" is listed towards the top of the page, then pointing out the disadvantages lower. I think this is a reasonable approach. Given that, please consider moving the "Research Revenue" chart, which I think is also favorable, up higher on the page (perhaps above the General Revenue chart).
- Might be worthwhile to report the student to faculty ratios:
  a. CEC – Engineering (6014 Students / 148 Faculty) = 41 students for each faculty member
  b. CEC – Mines & Met (1454 / 59) = 24 students for each faculty member
  c. CASB – Departments (1215 / 157) = 8 students for each faculty member
- I look forward to discussing later this week.
- "to what end or purpose we plan to use / advertise this."
- "I would hesitate to classify this as a White Paper until we put forth a position / strategy in detail on where we think or want to be headed and to what end. Can we provide some more ideas on this?"
- Other items I noticed, why in the 6th bullet of the "History" section did we put the phrase "but these programs remained..." in parentheses? I think it flows fine as a complete thought. We should probably double check any statistics in the document to make sure they are still relevant (88% of energy from mining, pet, nuc; program statistics on enrollment; starting salaries, etc.)
- Should we mention in the History section that this was a land grant school or how Missouri's flourishing mining industry prompted the state legislature to call for a school of M&M to support the growing field? And how exploration, mining, and mineral processing are still relevant today in our state with the increasing interest in cobalt mineralization?
- Outside of that, there are some punctuation consistencies with the bullet format that need attended to before I would call it a finished product, but that is a result of all those years of nuns hitting me with rulers to instill good punctuation and grammar! (just kidding, they had switched from hitting us with rulers to public shaming by the time I was in high school) Yes, I think I just volunteered to help.
- Revise Braden's name
- I think the document describing history and enrollment looks good. Good job!
- Other than replacing Dr Lusk name, the paper looks good

Development Report:

New Campus Leaders-

- Dr. Costas Tsatsoulis – Vice Chancellor of Research and Dean of Graduate Studies
- Dr. Angela Lueking – Associate Dean of Research College of Engineering and Computing
- William Zwikelmaier – Director of Career Opportunities and Employer Relations
- Adrienne Neckermann – Manager of Graduate Studies

Highly Selective Admissions Status:

- S&T's admissions status is now "highly selective," after Missouri Department of Higher Education (MDHE) designation
- S&T's previous status was "selective"
- More accurate representation of current admissions standards
- 27 ± ACT score = automatic admission
- Current average S&T student ACT score = 28

Under construction: Kummer Design
Miners go mobile: Alumni has an app for donations

MoNutt Addition = Glass Science & Technology Center – Has been approved

UM System Investments:

> Student Success
  $75 million - Need-Based Scholarships
  $25 million - Merit Scholarships
  $20 million - Digital Learning Initiatives - Grow online and distance-learning

> Research and Creative Works
  $50 million - Research and Creative Works
  $50 million - Precision Medicine Initiative and the Translational Precision Medicine Complex
  $12 million - Distinguished Professorships

> Engagement and Outreach
  $10 million - Engagement and Outreach
  $1.25 million - MO SourceLink Partnership

> Inclusive Excellence
  $8.5 million - Inclusive Excellence

> Planning, Operations and Stewardship
  $7.5 million - Faculty and Staff Success

One of our own “Miner and Metallurgy Academy” Members was a 2018 Alumni award recipients:

- William Tedesco, GGph’97 – Independent Consultant

Financial Report

General Operation account: Healthy balance prior to the expenses that occur of the Spring Induction Ceremony $10,017.36. Notification had been mailed out for the Reminders for voluntary dues had been processed

Scholarship account: Had a gain from $159,632.48 to $163,081.44

This is even with Spring Academy Scholars that graduated out: $2,500. We still have 2 Academy Scholars that will graduate out in the Fall 2018 which will then show the $1,000. Less the expense of the Scholars watches that they had select at local vendor “Kent’s Jewelry”

Perrin Roller presented the Report of the Jackling Committee

August 2018 Executive Committee meeting

The Jackling endowment continues to fund the following programs annually:

Mining Engineering Explosives Camp - $15,000
Jackling Introduction to Engineering Summer Program - $20,000
Materials Summer Camp - $25,000

The FY18 distribution totals $42,721.68.
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As of June 30, 2018, the balance in each of the three accounts is:

- **Loan net assets:**
  - Amount available for loans: $54,381.27
  - Outstanding loans: $24,894.32
  - Net Assets (Loan Fund): $79,275.59

- Available spendable: $48,605.09
- Endowment corpus: $1,086,738.55

Approximately $20,000 remains in the spendable account each year. The remaining funds have been purposely set aside to provide immediate funding to projects deemed critical to Missouri S&Ts success. Each of these projects must meet the criteria outlined in the endowment agreement.

No student loans have been issued this academic year. The committee is fairly liberal in approving loans as long as the department chair personally requests and approves. The loan fund is well known to faculty within the Mines and Metallurgy department but is not publicized on campus.

**Wayne Huebner Chair - Academy Scholar Report**

The process for selecting the Academy Scholars will remain unchanged for the upcoming cycle, and is as follows:

- Each fall semester an announcement is sent to the Mines & Metallurgy departments soliciting nominees to be honored as an Academy Scholar. This announcement is attached.
- Typically the student group leaders within the departments decide which students should be nominated, and names are submitted by November 1st. Last year a total of 18 students were nominated.
- The Academy Scholars Committee Chair meets with all the nominees in two groups and provides them with information about the purpose and history of the Mines and Metallurgy Academy, and the Academy Scholars Program. The Chair also reviews the materials the nominees need to submit prior to the deadline, this year December 29th.
- All materials are gathered and sent to the Academy Scholars Committee for review. Scores are assembled by the end of January and then decisions are made regarding winners. For instances where the scoring is too close to choose, the Chair seeks additional information from departmental faculty.
- All nominees are notified of the outcome.
- Last year seven winners were honored; each received a $500 award and an engraved watch:
  - Amalia Tettambel, Nuclear Engineering
  - Clayton Mears, Mining Engineering
  - Taylor Steffen, Geological Engineering
  - Alyssa Snider, Petroleum Engineering
  - Osvaldino Contreiras, Geology
  - Hannah Westin, Metallurgical Engineering
  - Evan Musterman, Ceramic Engineering

**Nomination Committee Chair: Submitted by Ralph Flori**
One email request was sent to the MMA membership and to the GGPE, MNE and MSE department chairs requesting Academy nominees. So far two new nominees (see table below) have been received.

At least one more request will be sent soon to ensure we have a full slate of new nominees by the Nov 9 deadline for Spring 2019 induction.

So far (as of Oct 9, 2018):

New Nominees (Fall 2018 for Spring 2019 Induction): (Nomination deadline Nov 9, 2018)

<table>
<thead>
<tr>
<th>Nominee</th>
<th>Discipline</th>
<th>Nominated by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don Dwyer</td>
<td>Mining Engineering (2002)</td>
<td>Greg Sutton</td>
</tr>
<tr>
<td>Doug Melvin (waiting on applic)</td>
<td>Petroleum Engineering (BS 1986)</td>
<td>Patrick Wagner</td>
</tr>
</tbody>
</table>

Nearly every year some nominees cannot attend the April meeting for induction. Per Academy Bylaws, nominees can be carried over two additional times (for a total of three invitations).

<table>
<thead>
<tr>
<th>Carryover Nominees:</th>
<th>Discipline</th>
<th>Nominated by:</th>
<th>Original Nomination</th>
</tr>
</thead>
</table>

M&M Academy New Officer Nominations:

Per M&M Academy Bylaws, the Nominating Committee solicits and recommends to the Executive Committee and to the Membership nominees for the Vice Chair and for Exec Committee Members At Large.

- At the Spring 2019 meeting, current Vice Chair Chris Ramsey will rotate up to the MMA Chair.
- Also at that time, current Members At Large Scott Sehlin and Bill Martin will rotate off the Executive Committee, having completed their two year terms. (They can choose to stand for reelection.)
- Thus, at this time, we are soliciting nominations for a new Vice Chair and two new Members At Large to be voted on at the Spring 2019 meeting, to serve two year terms.

M&M Academy Committee Nominations: Is there anyone, especially new members, who would like to serve on a standing committee (Nominating Committee, Student Affairs and Scholar Awards, Strategic Planning)? Please inform John Borthwick or me if so.

To be completed between now and Nov 9:

Recruit more nominees at the Academy meeting, by email from Academy membership, and by contacting programs and department chairs.

Old Business: None
New Business: Design teams Support

The Deans wants input from the Academy regarding the reorganization

Dr. Angela Lueking Associate Dean of Research - Seeking voluntaries for viewing research grants

Open Discussions:

Congrats to Dan Scott Award – recently received SPE Technical Conference and Exhibition

Chair of Chemical stepped down. Dean wants to resolve the Nuclear Engineering position before the advert for the Chair of Chemical. It would only be fair to make sure that disciplines are appropriate placed.

If the option for Mining and Explosive Department is approved, that would be the best option for Mining. Then once all this is in place then advert for the Department Chair for Mining and Explosive Engineering.

Dr. Kwame Awuah-Offei current position as the Interim Program Chair; what effect does this have for the New Ventilation Tenure track position. It has been purposed that Dr. Awuah-Offei stay on for one year (June 2019) as Interim till the hiring of the Dr. for Ventilation is hired and on board.

Next Meeting for Spring 2019 April 25th

Adjourned 3:35pm