CALL TO ORDER:

Gregory Skannal, Academy Chair called the meeting to order at 9:05 A.M. He welcomed everyone!

Those attending were:

Greg Skannal, Academy Chair Curt Elmore Jim Humphrey Larry Britt Harvey Goodman Perrin Roller Tim Bradley Keith Wedge Ken Gielow Mike Moats John Borthwick Ralph Flori Dick Bullock Delbert Day Jim Spehr Bill Martin Kent Weisenstein Scott Sehlin

Representative of Missouri S&T attending:

Pamela Rathe, Dean of Engineering and Computing Office Representative
John Held, Director of Planned Giving, University Advancement, Development
Brittany Thompson, Development Officer, Development – Corporate and Foundations
Ralph Flori, Interim Chairman, Mining and Nuclear Engineering
Francisca Oboh-Ikuenobe, Interim Chairman, Geosciences and Geological and Petroleum Engineering
Judy Russell, Office Support Assistant IV (Administrative Assistant), Mining Engineering

Greg Skannal spoke briefly – then asked everyone to introduce themselves around the room. Greg announced that Dr. Wayne Huebner, chair of Materials Science and Engineering, has announced that he will step down as chair of that department effective Jan. 1, 2016. Wayne plans to resume his previous role as professor of ceramic engineering within the department. Dr. Ian Ferguson, vice provost and dean of the College of Engineering and Computing since August 2014, has announced plans to step down from that role for personal and family medical reasons. Dean position is pending an Interim. In the April 2015 meeting, Phil McPherson was appointed – Strategic Planning Committee Chair, currently out of the country for approximately the next two years. On another note we want to welcome Jim Spehr back. It has been ten years since he has been back on this campus. He was our seventh annual speaker for the O'Keefe Lecture Series on October 22, 2015.

Dan Scott, which was absent from this meeting; sent an email to Greg regarding a prestige's award that had been recently awarded. Mines and Metallurgy Academy member Larry Britt and Associate Prof of Petroleum Engr., Geosciences & Geological & Petroleum Engr., Dr. Sherri Dunn Norman; both Society of Petroleum Engineers (SPE) Members. Received the SPE Annual Technical Conference and Exhibition (ATCE) Distinguished Award for their achievements to the society are deemed worthy of special recognition. In order to receive this award you are world known as world class experts for their work. Congratulations to both of them.

Greg opened discussion of the April 2015 minutes. Perrin Roller made motion to approve the minutes; Dick Bullock seconded. The minutes were approved unanimously without change.

Executive Committee Reports:

Financial report:

Greg Skannal gave summary on the financial reports. Currently, we have one hundred eleven active members in our academy. Currently we have approximately thirty members still to pay their voluntary dues. The Mines and Metallurgy Academy Scholarship currently shows the balance of \$129,328.10. As has been previous noted in past meetings; this particular data sheet goes back to12/31/2008, which indicates a start balance of \$89,325.73. Through this span of time, it shows various deposits that members have contributed payouts of scholarships and of course the MST 5% manage fee. The general operating account which is housed within the Mining Department shows the current balance of \$1,321.98. This account reflects the money that you contribute from your academy dues or employers matched fund. \$250 dues were put in place to offset the operating expenses, awards, statues and banquet expenses.

Jackling Committee:

No updates at this present time; Jackling Committee still to meet over Homecoming events.

Notes from Chris Ramsay, Committee Chair on April 16, 2015

The Jackling endowment continues to fund the following programs annually:

Mining Engineering Explosives Camp - \$15,000

Jackling Introduction to Engineering Summer Program - \$10,000

Materials Summer Camp - \$15,000

The FY15 distribution totals \$42,478.08.

As of March 31, 2015, the balance in each of the three accounts is:

Loan net assets:

Amount available for loans \$41,750.62
Outstanding loans \$42,283.41
Net Assets (Loan Fund) \$84,034.03

Available spendable - \$69,028.60 Endowment corpus - \$1,030,479.36

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 departments but is not publicized on campus.

Nominating Committee:

Ralph Flori, Committee Chairman reports - in the meeting packets:

- Nominating Committee Timeline for Fall 2015
- Mines and Metallurgy Academy Member Nomination Form

We already have received seven candidate names:

| Nominee | Discipline | Nominated By | |
|-----------------|---------------------|----------------|--|
| Tim Hildenbrand | Geological Engr '80 | Jim Humphrey | |
| Robert Duenckel | Petroleum Engr '74 | Terry Palisch | |
| Bryan Galli | Mining Engr '82 | Dianna Tickner | |
| Gary Pennell | Metallurgy Engr '96 | Mike Moats | |
| Linda Harrell | Ceramic Engr '88 | Mike Moats | |
| Terry W. Donze | Geological Engr '71 | Perrin Roller | |
| Ron Tyson | Geological Engr '91 | Perrin Roller | |

We would like to have more nominations. We want to have each discipline be sponsored.

We will re-invite Paul Demzik (Mining Engr '83) and Jon Gibbs (Petroleum Engr '93); this will be their final invite for membership for five years if unable to attend.

Jim Spehr brought up how we might want to look further for the past graduates whom we all don't personally know. These individual may have graduate a couple years before, we just need to be able to recognize them. How do we find those individuals? Greg Skannal brought up the "Alumni of Influence". This program is attempting to reach out identify the past Graduates whom we may not have heard from in a good period of time. There is a chance that we might be able to reach out to this program through the Alumni Office for some of our past graduates in the Mines and Metallurgy disciplines.

Scholarship Committee-Student Affairs/Scholar Awards/Faculty Awards:

Wayne Huebner, Committee Chair, absent, however it was still explained how the selection of the Academy Scholar had been conducted in the past years. Candidates are chosen by their peers, and then the candidates supply information for the Scholarship Committee to review. Once the Academy Scholar Candidates are selected it is always so nice to be able to visit with proud scholars and families on the night of the awards.

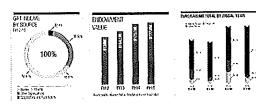
This past April 2015, we implemented a new way for the Academy Scholars watches to be purchased. Each seven Scholar would be given a \$300 voucher for their watch selection at Kent Jewelry's. If they go over the allotted amount then it would be up to the Scholar would then pay the difference at the time of delivery. In the past Ted Ruppert had always sponsored the watches the last couple years with his generosity. Now since the Mines and Metallurgy Academy will cover both gifts, this will have a bigger impact to the Scholar for their accomplishments and what this awarded gift means. Going forward the watches will always come from the Academy. The funds from the Endowed scholarship account have been approved to cover both; the watch and scholarship.

Presentation by John Held, Director of Planned Giving, University Advancement, Development

John Held thanked Tim Bradley for his generous gift. This endowment of two million dollars has been set up for the Petroleum Graduate Students. Ralph Flori spoke how this will be able to recruit with in the USA to help support graduates. Tim spoke in regards how his wife and he have been blessed with great outcomes.

Gave a Brief update on the Fundraising Progress:

Fundraising Progress Report Fiscal Years 2012-2015



Fundraising Progress Report Fiscal Years 2012-2015

| NNUAL FUND RESULT: | | EUTPORT TIPE | |
|--------------------|--|--|--|
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| Ale Menting | ent with man | Pit Ci Prana - 17 September - 18 September - 18 Sep | |
| | ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 170 grand 170 grand 170 grand Grand Grand Michaelen Market Frank | |

- · Celebrating Miner Legends Luncheon in the Hasselmann Alumni House
- Announcing the second class "Alumni of Influence" for November 5, 2016
- · Ready to Rise: Schrenk Hall Renovation

Advanced Construction and Materials Laboratory (ACML)

Rolla Rising Scholarships

UPCOMING EVENTS:

Commencement and Award of Professional Distinction: December 19, 2015 Golden Alumni Reunion: May 17 – 18, 2016

REMEMBER:

Nominations for the Miner Alumni Association awards, due December 31, 2015

Create and Promote Corporate Partnerships

Nominate fellow alumni for the Young Alumni Council

John Held touches on the topic of the Blacksmith shop that Wayne Huebner is currently working on the statics. Ralph Flori also shared that the New Experimental Mine Building has been approved financially to be built. This building was started approximately five years ago. Most all the money has been raised except for five hundred thousand. Dedication planned for this next June 2016.

Strategic Planning Committee:

Rose Horton, Missouri University of Science and Technology, Strategic Planning Progress Manager, gave presentation regarding the University Strategic Planning Progress.

STRATEGIC UPDATES:

- Strategic Funding
 - o FY14 Leverage S&T as Missouri's technological research University \$2,570,000
 - Apple technology to enhance learning and productivity

\$132,000

- Improve learning laboratories \$500,000
 - Total \$3,202,000
- FY15 Doctoral student recruitment and retention \$3,047,550
- Investment in signature areas \$1,493,000

- Total \$4,540,850
- FY16 Investment in signature areas \$712,000
- o Joint faculty hires \$286,574
- o Title IX \$464,059
 - Total \$1,463.033 *

(*Additional state funding: Experimental Mine building \$1,2 million - Schrenk Hall \$12.1 million)

- Strategic Faculty
 - o Goal to add at least 100 additional faculty by 2020 (25 new faculty have been added)
- Enrollment-
 - 6,841 Undergraduates, 2,048 Graduates = 8,889 for "2015"
 - o Increased Diversity
 - ACT Average
 - o Rising Scholarships
 - Campus meeting the needs of students and faculty
 - Rapid Growth in Distance/Online Programs
- Experiential-
 - First-year students now required to complete experiential learning component to graduate
- Expanding Research
 - o Royalty income / U.S. patents filed / Number of license and option agreements
- Campus Recognition
 - o NSF Grant Expenditures / Engineering Doctoral Students
- Student Success-
 - Average Starting Salaries Undergraduates / Employer Satisfaction
- Departmental Metrics-

| | MSE | | GGPE | | MNE | |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2013-2014 | 2014-2015 | 2013-2014 | 2014-2015 | 2013-2014 | 2014-2015 |
| PhD enrollment | 2.10 | 1.88 | 3.60 | 1.84 | 2.90 | 3.50 |
| Research Expenditures (OSP) | 215,685 | 176,821 | 116,030 | 109,326 | 178,069 | 432,864 |

Phil McPherson – Committee Chair has been assigned overseas and will not be able to continue in his role on the committee for a couple of years. Tim Bradley has agreed to assist, as Vice Chairman, John Borthwick will teamwork with this committee to keep moving forward.

Tim Bradley presented Strategic Planning Committee Recommendations:

As a guiding principal, the strategic planning committee recommends to the Academy that our strategies should support the college and department plans and link to the dashboard metrics. *More definitive goals and specific plans to affect these strategies need to be developed.*

The Academy should hold a strategy to support undergraduate lab equipment modernization. The linkage
with the University Strategic plan resides in areas such as "technological university"; "improve facilities";
"experiential learning" "enhance instructional labs". *Initial Step: The Department Chairs would prioritize*lab equipment needs and the Academy would see what/how it could help.

- 2. The academy should take a strategy to identify / facilitate / integrate industry R&D needs with MST research capabilities and to generally foster corporate linkage and relationships. There are many benefits, including student engagement with industry problems and solutions links to the University Strategic plan "experiential learning". *Initial Step:* Needs to be developed
- 3. The Academy should take as a strategy to accelerate, without diluting, Academy membership. It is recognized that the Academy is moving the right direction as evidenced by the April meeting By-Law adoption for increased invitations. Reaffirm and continue the path emphasizing diversity and youth. The Department chairs are in the best position to know the candidates; the Academy members can support the Department chairs by contacting the candidates and facilitating the administrative work. Initial Step: Adopt Change to By-Laws
- 4. The Academy takes a strategy to support the faculty by endorsing a balanced and equitable approach to rewarding teaching, fundamental contributions (meaningful papers without peer review) and research. This is consistent the Strategic Plan and the concept of being a technological university a "teaching university" and "research university" with linkage to "excellence in scholarship"; "enhance student learning", etc. Initial Step: Needs to be developed.

College of Engineering and Computing Updates

Ralph Flori was asked by Rose Horton to present the updates in absent of Dr. Bruce McMillin Associate Dean in College of Engineering and Computing (CEC) and any other available Associate Dean.

A short summary of what the College of Engineering and Computing consist of: College of Engineering, Mines and Metallurgy and Geological was all brought together as one as one large college. This comprises approximately 85% of a combined college. As many of us know; Dean Ferguson stepped down about two weeks ago. Faculty took a vote of confidence for his removal due to a lack of confidence of the direction of the school. This was a mutual decision between the Provost and the Dean. Dean Ferguson has several personal other factors happening in his life; his wife is ill, father near death, and his mother is ill over in Scotland.

The current plans consist of having an Interim Dean for approximately one year. When Dean Ferguson took office, his office was not completed nor was it 100% operational. Dean had no pot of money, no percent of school funds to work with. During the time of the Interim Dean, plans would be to make the Deans office 100 percent operational with funds to work with. Possibly raise an Endowment for the Dean and College.

Selection committee to be put in place; no reason to stop a search for the Department Chair(s)

Academy members that would like to take part of these different searches - when it happens:

MNE: Steve Lang, Jim Humphrey, and Dianna Tickner

GGPE: Keith Wedge, Perrin Roller, and Larry Britt

MSE: Mike Moats and others are pending.

Website Updates:

Communications regarding the website information needs updating. The Academy website has some items that have been wrong for years.

Perrin Roller has shared some ideas regarding how the website would be better. It was explained in the meeting that the program that was used to build the website is now obsolete with the program the Missouri University of Science and Technology is using. This meant that the web site shell was rebuilt and now we just need to upload the correct information.

Gregory Skannal shared information from the Academies President meeting with the Chancellor from the morning meeting. Under the Strategic Planning Committee there are three roles that have been identified; web master, content manager and marketing. These positions have been formed under Andy Careaga, Executive Director,

University Communications. These positions will not only do for each Academy; but also the Departments. Websites would be built under the new banner and graphics for each Department and Academies. Websites are the best recruiting tool. 85 % of students get the most all their information off the websites. Student workers then can implement information up on the website that is good with Information Technology.

Rose Horton shared that In University Strategic Planning Committee under Andy Careaga, Executive Director, University Communications that there were three positions: Web Master, Content Manager/ Developer, and Market that would be working under Andy's guidance for the Academies.

Three pieces that would need to come together would be:

- 1. Architecture,
- 2. Which web technology will be use
- 3. Execution of the plan

Record – cleaning: It has been requested from a member that the Deceased Member list and the Induction list of when an individual had been inducted be placed on the website. Possible will need assistance from the Alumni Office to query dates of passing of a member.

Gregory shared with the Academy members that in the Academies President meeting; it was talking about how some of the Academies work with the different student organizations.

- · Mentoring/ Employment Opportunities
- Lecture series
- Speakers bureau

Need to connect with the students and not so much with the boards. Seven disciplines that we work with even though we invite officers to luncheon.

Bringing this to the awareness to the Academy - How can this managed across 7 disciplines?

Scholarships have been address to the students, now we need to look at Scholar Affairs.

New Business

Approval of the By Laws -

Gregory Skannal asked all to view the redline document of the By Laws. Tim Bradley brought it to Greg's attention that the insert from Philip McPherson was not included on page 1 A(2) of the redline document of the By Laws.

Current language:

Be an alumna/alumnus of the department of Materials Science and Engineering, Mining, Nuclear Engineering or Geosciences, Geological or Petroleum Engineering.

The language was discussed and it is proposed to change the membership qualification language to

An S&T graduate (can be a non-Mines and Met degree) who works in a Mines and Met related industry and who is a close friend of an supporter of a Mines and Met program.

Academy members had an open discuss regarding the changes was exchanged.

Motion for acceptance by Tim Bradley; Seconded by Jim Humphrey. Adopting the purposed changes to the By-Laws from the Strategic Planning Committed. All approved unanimously.

Approval of the Charter -

Charter redline should have also read under the section of "CRITERIA FOR MEMBERSHIP" (2) the same insert as was noted for the By-Laws.

Motion for acceptance by Tim Bradley; Seconded by Perrin Roller. Adopting the purposed changes to the Charter

from the Strategic Planning Committee. All approved unanimously.

Last Item:

Of the four strategic themes developed for discussion iii) had already been approved while approving the By-Laws and Charter. See insert below:

FROM PHILIP MCPHERSON 10-11-2015

Academy Members

During the May 2015 meeting, the strategic planning committee accepted two tasks for the Oct meeting.

1) to bring recommendations for the Academy strategic plan; and 2) to review and recommend a change to the By Laws membership qualifications.

Strategie Plan

A little background; Rose Horton presented a progress report on the University Strategic Plan and reviewed the dashboard during the second strategic planning committee conference call. It is worth noting that at the time of the call, the College of Engineering and Computing strategic plan was nearing completion. After the College plan is completed and approved, the departments will develop their respective strategic plan.

It was manimously recognized that the Academy strategic plan should support the departments and it was felt that the themes developed were generally aligned and could be refined once the department plans are finalized. Rose subsequently developed a dashboard by department for the departments in the Mines and Metallurgy Academy. Rose will kick off the Strategic Planning agenda with the status of the University, College and Department plans and a review of the dashboard.

Four strategic themes developed for discussion are:

- i) The nenderny hold a strategy to support undergraduate lab equipment modernization. The Department Chairs would prioritize lab equipment needs and the Academy would see what/how it could help. The linkage with the University Strategic plan resides in areas such as "technological university"; "improve facilities"; "experiential learning." "enhance matruetional labs".
- ii) The academy take a strategy to identify / facilitate / integrate industry R&D needs with MST research capabilities and to generally faster corporate linkage and relationships. There are many benefits, including student engagement with industry problems and solutions -- links to the University Strategic plan "experiential learning".
- iii) The academy take as a strategy to accelerate, without diluting. Academy membership. It is recognized that the academy is moving the right direction as evidenced by the April meeting By-Law adoption for increased invitations. Reaffirm and continue the path emphasizing diversity and youth. The Department chairs are in the best position to know the candidates; the academy members can support the department chairs by contacting the candidates and facilitating the administrative work.
- iy) The academy take a strategy to support the faculty by endorsing a balanced and equitable approach to rewarding teaching, fundamental contributions (meaningful papers without peer review) and research. This is consistent the Strategic Plan and the concept of being a technological university a "teaching university" and "research university" with linkage to "excellence in scholarship"; "enhance student learning", etc.

IPage

| FROM PHILIP | MCPHERSON 10-11-2015 |
|-----------------|----------------------|
| ····PROM PHILIP | MCPHERSON 10-11-2015 |

As a guiding principal, the strategic planning committee as the Academy to keep in mind that our strategies should support the college and department plans and link to the dashboard metrics.

By-Law 1 A (2) Membership Qualifications

BY LAW I A (2) Memorsamp Comments.

Current language:
Be an alumna/alumnus of the departments of Materials Science and Engineering, Mining, Nuclear Engineering or Geosciences, Geological or Petroleum Engineering

The language was discussed and it is proposed to change the membership qualification language

An S&T graduate (can be a non-Mines and Met degree) who works in a Mines and Met related industry and who is a close friend of an supporter of a Mines and Met program,

Regarding i) Motion for acceptance by John Borthwick; Seconded by Tim Bradley. Approved

ii) Motion for acceptance by John Borthwick; Seconded by Perrin Roller. Approved

iv) Motion for acceptance by John Borthwick; Seconded by Perrin Roller. Approved with the Adopting the Strategic Planning Committee recommendations. All approved unanimously.

Next Mines & Metallurgy Academy meeting will be April 21, 2016.

Discussion/Adjournment

The meeting was adjourned at 2:50 PM.