Dear M&M Academy Members,

At the annual academy meeting in April, 2014, we found it necessary to grow in all areas in which we are now involved with Missouri S&T. The Academy is in need of more members to be able to continue the degree of activities to retain our reputation as the leading technological research university in the state. The general academy membership and those that attend our regular meetings will need to increase to maintain the capacity required to impact the seven programs. The requirements of membership were discussed and will be reviewed at the April 2015 meeting.

With the beginning of a new academic year, I am happy to report that the three Departments served by our Academy have seen significant enrollment growth. Ceramics, Geological, Metallurgy, Mining, Nuclear and Petroleum Engineering and Geology/Geophysics have all expanded in enrollment capacities. This expansion requires space, faculty and laboratory resources to meet the challenges to maintain prominence as the best cluster of materials, minerals and energy resources engineering disciplines of any university in the nation. A total of 1,768 students were enrolled in the 7 academic programs based on the 4th Week Enrollment Statistics published by the Registrar with a distribution of 48.4%, 15.8% and 35.8% for the Departments of Geosciences, Geological and Petroleum Engineering (GGPE), Materials Science and Engineering (MSE) and Mining and Nuclear Engineering (MNE), respectively. The three departments also graduated 196 B.S., 136 M.S./M.E. and 20 Ph.D. graduates for industry and academia, with a distribution of 56.5%, 12.8% and 30.7% for GGPE, MSE and MNE, respectively.

Two faculty members, Dr. Carlos H. Castano (MNE) and Dr. Runar Nygaard (GGPE), were promoted to Associate Professor with tenure and Dr. Grzegorz Galecki (MNE) was tenured at the rank of Associate Professor. Several faculty members received Outstanding Teaching Awards by the Committee of Effective Teaching and Global Learning. These faculty members include Ralph Flori, Steve Gao of GGPE; Matt O’Keefe, Greg Hilmas and Bill Fahrenholtz of MSE; and Drs. Gary Mueller, Jason Baird, Kwame Awuah-Offei and Maochen Ge of MNE. As part of its strategic initiatives, Missouri S&T has selected 4 best-in-class areas to focus attention on advancing strategic research initiatives. These areas include (i) advanced manufacturing; (ii) advanced materials for sustainable infrastructure; (iii) structural materials for extreme environments; and (iv) smart living: the next frontier toward a secure sustainable society. MSE is leading the efforts in area (iii) and participating in areas (i) and (ii) and MNE is participating in the efforts in areas (ii) and (iii).

The major challenge facing the seven programs is space. To solve the space problem, a new building (with 120,000 square feet of space) has been proposed to ease the current congestion at the V.H. McNutt Building by MNE. Another extension to McNutt (with 19,860 square feet of space) has also been proposed by MSE to provide space for Glassblowing and Blacksmithing Studio. These additions will provide solutions to one of the important challenges for maintaining excellence at Missouri S&T.

I would like to invite all of you to support these initiatives to maintain excellence in the seven academic disciplines we serve. I look forward to seeing you at the spring academy meetings.

Ted Ruppert
November 2014

Chair’s Corner
SPRING 2014: GSE Growth Continues

- 698 Total GSE Students
- 437 Undergrad Students (includes FEP)
  - 104 G&G / 97 GE / 236 Petroleum
- 169 Graduate Students (on campus)
  - 61 G&G / 38 GE / 70 Petroleum
- 92 Ft Wood/Distance GE Grad Students

GSE: Now the 3rd Largest Dept at S&T

GSE received approval to search for a new faculty member in Petroleum Engineering in Reservoir Characterization.

GSE received funds for a new G&G Microscope Lab (with new microscopes, digital cameras, and projection facilities ideal for student collaboration).

Malaysia Exchange Program

Petroleum Engineering students Caitlin Darnall and Colin Woolums are in Malaysia at UTP in Spring 2014. At right Caitlin takes a bite of Durian, a very strange local fruit.

New Name: Department of Geosciences and Geological and Petroleum Engineering

Two New Colleges with Deans: Where does Geology and Geophysics belong?

In fall 2013 Chancellor Schrader decided that S&T would go back to two colleges, each with a dean. One college was to be Engineering and Computing, and the other college was to be Arts, Sciences and Business. This raised the question:

Technically G&G is a science program, but it is a key pillar of the GSE department. The Chancellor gave the GSE faculty the opportunity to choose.

After an excellent and fruitful discussion regarding the strategic future of the department and the relative contributions of the three programs, it was nearly a unanimous vote to keep the Geology and Geophysics program within GSE.

GSE received funds for a new G&G Microscope Lab (with new microscopes, digital cameras, and projection facilities ideal for student collaboration).

As of Spring 2014 fourth week enrollment, the top departments in female student numbers are:

- Geol Sci and Engrg (147 females)
- Biological Sciences (139)
- Civil, Arch E and Envir E (131)
- Mechanical and Aero (11)
- Chemical Engrg (104)
- MET and AERO (984 students)
- Electrical and Computer Engrg (673)
- Geol Sci and Engrg (501)
- Computer Science (491)
- Civil, Arch E and Envir E (432)

New Faculty member in MSE

Ron O’Malley
- Former Chief Metallurgist of Nucor
- Ph D from MIT

Dr. Thomas J. O’Keefe
Lecturer
Dr. William E. Horst
MetE B.S. 51, M.S. 52
Professor Emeritus, Univ. of AZ

Keramos & Material Advantage win National Awards at MS&T 2014

Proposed McNutt Addition Plans for a Glassblowing and Blacksmithing Studio

The Sixth Annual
Dr. Thomas J. O’Keefe
Lecturer
Dr. William E. Horst
MetE B.S. 51, M.S. 52
Professor Emeritus, Univ. of AZ

GSE Benefits from Campus Strategic Plan

The S&T campus conducted a campus-wide strategic planning effort during the 2012-13 academic year. GSE was awarded funds from two competitive initiatives from this plan.

GSE received approval to search for a new faculty member in Petroleum Engineering in Reservoir Characterization.

GSE received funds for a new G&G Microscope Lab (with new microscopes, digital cameras, and projection facilities ideal for student collaboration).

Starting salaries: Met: $63,306
Cer: $58,770

Keramos & Material Advantage Groups win National Awards at MS&T 2013 in Montreal

Professor Greg Hilmas delivered the Arthur Friedberg lecture at MS&T 2013

New Faculty member in MSE

Ron O’Malley
- Ph.D. in MetE from MIT
- New Iverson Chair of Steelmaking Technologies

SPE Energy Symposium: April 7, 2014

Mark your calendars and plan to attend the Third Annual Energy Symposium, organized and sponsored by the SPE student chapter. This one-day event features presentations by industry speakers, plus the annual Petroleum Engineering Banquet that evening (Monday, April 7).

GSE Advisory Board Meets: April 25, 2014

GSE chair Ralph Flori is organizing a combined advisory board meeting for the GSE department on Friday, April 25. Some invitations have gone out. If you are interested in participating, please contact Dr. Flori at reflori@mst.edu.