

Students & Scholarships

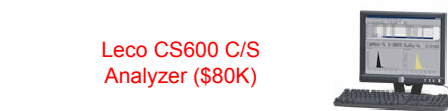
- FS 08 Enrollment: 169 undergrad, 64 graduate students (67% / 14% growth since 2004)
- ≈\$300K in endowed departmental scholarships given out in AY08-09; ≈\$125K in competitive scholarships were awarded to our students from professional organizations (FEF, WAAIME, AIST, SW ACerS, Copper Club, Modern Casting...)
- A record 69 companies were seeking CerE and MetE graduates at the fall career fair in September. December graduates are averaging an ≈\$57K starting salary

ABET Update

- On October 19-21<sup>st</sup> CerE and MetE were reviewed by ABET. Nine Criteria were reviewed:
 

1. Students	7 Facilities
2. Program Educational	8. Support
3. Program Outcomes	9. Program
4. Continuous Improvement	Criteria
5. Curriculum	
6. Faculty Objectives	
- Of these both CerE and MetE were given flying colors on criterion #1, and #4-9. We received "weaknesses" in criterion #2 and 3. Why? It was deemed that our processes for assessing achievement of our objectives and outcomes were inadequate. This is despite the fact that all measures we judge ourselves on, predominantly grades, students getting jobs and career success, are not acceptable ABET measures. We are currently engaged in revising our processes to satisfy ABET and hopefully have the "weakness" designations removed. The Academy will play a key future role in serving as evaluators.
- Success in Criterion 7 and 8 was a direct result of the Academy's assistance buying equipment for our labs – Thank you!

- MoSi<sub>2</sub> box furnace (\$20K)
- Two annealing furnaces (\$5K)
- TMA-retrofit unit (\$5K)
- MTS compression platens (\$4K)



Microtrac /  
Nanotrak  
(\$45K)

Student Groups



MS&T Conference

At the conference held in Pittsburgh in October two of our student groups brought home the national outstanding chapter awards: Materials Advantage and Keramos. This is a first for MA, and Keramos has now won 8 out of the last 10 years.



FEF College Industry Conference

The 61st annual conference was held in November in Chicago. Over 265 industry executives, students, and key professors were in attendance. In total \$54,000 in scholarships and awards were presented, and S&T student, Angela Schulte, received the Ron Ruddle Scholarship.

Professor Von Richards is a FEF Key Professor, and makes sure our students always are in the hunt for CIC and FEF scholarships and awards!

M & M Academy Newsletter

Chair's Corner

Dear M&M Academy Members,

Greetings from the Academy. The fall semester at Missouri S&T is drawing to a close, and our departments continue to excel in helping students succeed. In this Newsletter we decided to focus on departmental news related to the students - enrollment, placement, scholarships, student group awards, and ABET. I know you will be pleased with the results; our SOMM departments continue to attract the best students, and they are winning competitive national scholarships and awards! And importantly, despite the state of the economy, the job market remains strong for engineers. Over 300 companies came to the Fall Career Fair, and a record number were seeking the SOMM students. Average starting salaries are at an all-time high.

Attendance at the October Academy meeting could have been better – only 15 members were in attendance. Yet the meeting was productive, important decisions were made, and good news was shared, including.

- Seven Academy Scholars will be named again at the spring meeting, and invitations to their friends and family to attend.
- Seven new members have been nominated for membership in the Academy, and the nomination committee will be making decisions before the end of the year
- The official Academy name is now: Mines & Metallurgy Academy (M&M Academy).
- A new faculty recognition award was discussed – a proposal will be sent out with the next newsletter and a decision made at the next meeting.
- A new M&M Academy website is up. Check it out at <http://web.mst.edu/~mmacademy>.
- On a recommendation from the Academy the Executive Committee has decided to pursue honoring Professor O'Keefe permanently in McNutt Hall by commissioning a bronze bust. The cost of this will be ≈\$20K, and we will be seeking your financial help to make this pursuit a reality.

The next meeting and induction ceremony are scheduled for April 16, 2009. **Please** consider attending – through our time, connections and resources we are truly making a difference. The recent ABET Accreditation review is a perfect example – without our help the departments would not have received a passing grade on attributes related to facilities and equipment. Overall the departments did not come out unscathed – most received weaknesses in areas related to the assessment of program educational objectives and outcomes. And as I have learned from the Chairmen, the Academy will be asked to step up to the plate and serve in the capacity of evaluators. This will be an important activity during the Academy meeting in April – the departments must provide ABET with a report on improvements by late June. In our next newsletter the departments will provide further details.

The past year has clearly demonstrated that the M&M Academy can play a critical role in the future of our alma mater. The students and faculty express their sincere gratitude to us, and look for us to continue serving as a role model for what a truly effective Academy can do for the success of future generations of Miners. Can you imagine a better way to give back to the institution that enabled us to succeed?

Dianna Tickner  
December 2008



Season's Greetings

**GEOLOGY AND GEOPHYSICS NEWS:** The following 2008-2009 student awards were presented during the Geology and Geophysics Homecoming Banquet on October 16, 2008: Moikwathai Moidaki – Outstanding Graduate Student; Leslie Lansbery – Outstanding Graduate Teaching Assistant; Thomas Jerris – Outstanding Graduate Award for Service; Crystal Twenter – Outstanding Undergraduate Award for Service; Cassandra Browne – Alfred Spreng Undergraduate Research Award; Mohamed Zobaa – Alfred Spreng Graduate Research Award.



Crystal Twenter (left picture) and Cassandra Brown (right picture) being congratulated by Dr. Mohamed Adelsalam and Mr. Jay Goff, Dean of Enrollment Management



**Field Research Experience for Students in Africa:** Over the next four months Drs. Mohamed Adelsalam, Stephen Gao, Franca Oboh-Ikuenobe and John Hogan along with three graduate students and seven undergraduate students will be traveling to Egypt and Ethiopia to study the Afar Depression as it relates to the geologic history of the Egyptian Nile and sea level changes in the Mediterranean. This research and travel is funded by NSF.

The Geology and Geophysics Advisory Board met on October 16, 2008. Dr. Franca Oboh-Ikuenobe was appointed as Faculty Liaison.

**GSE ENGINEERING NEWS—ABET ACCREDITATION:** In October of this year, both Petroleum Engineering and Geological Engineering were reviewed by ABET, Inc. ABET issues three levels of criticism from “concern” to “weakness” to “deficiency.” Geological Engineering received one weakness and Petroleum Engineering received two concerns. This is great news. Both programs anticipate reaccreditation for 6 years with no further action other than refinement of the program objectives and continued collection of assessment data. Many thanks to all the alumni who helped with the ABET effort!

**PETROLEUM ENGINEERING (PE) NEWS:** Two PE students from Missouri University of Science and Technology have been selected to attend the International Petroleum Technology Conference Dec. 1-5 in Kuala Lumpur, Malaysia. Both students will have their trips to Malaysia paid for by conference sponsors, including Petronas. Rayan Adil Alghanim, an upperclassman in Petroleum Engineering was recently awarded the prestigious graduate fellowship to pursue graduate studies at King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. Rayan attended a banquet in Washington D.C. to honor the KAUST scholars who were selected from the most prestigious academic institutions in the United States. All five petroleum engineering faculty traveled to Houston for their annual industrial advisory board (IAB) meeting, October 27th. The meeting was well attended and many good suggestions were made by the IAB. The faculty honored Chevron’s Mr. Harvey Goodman, Dr. Peter Connolly and Dr. Paul Norman with plaques for their special contributions in the area of Mechanical Earth Modeling.



Mr. Harvey Goodman (left)  
Dr. Peter Connolly (right)



**GEOLOGICAL ENGINEERING (GE) NEWS:** In addition to the ABET accreditation news, many of you have seen the wind turbine at the Troop I headquarters across I-44. This is part of a Renewable Energy Demonstration sponsored by GE and the State of Missouri. Geological Engineering also has a number of field trips planned including one to Machu Picchu this spring and another to Guatemala to continue work on supplying potable drinking water supplies to remote villages in Guatemala.

## Students

- 295 undergraduates, 65 graduates (62%/83% growth since 2004).
- \$310K in departmental scholarships given in AY08-09
- A record 85 companies sought Mine and Nuke graduates at the Fall Career Fair. Starting salaries for our graduates is about \$60K.



## More Awards

- SME Student Chapter wins the New Membership Drive Award among all Schools in the USA.
- Mine Rescue at Rolla (09/08): MS&T Teams placed 5<sup>th</sup> and 7<sup>th</sup> out of 13 Teams.
- 60 Students on Academic Scholar List
- Mackenzie Sweeney, Deans Award for Outstanding Academic Achievement
- Suzanne Schreyer, Enrollment Mgmt Outstanding Leadership Award
- Dr. Gary Mueller, Outstanding Teaching Award

## Awards & Recognition

### 2008 NOTABLE SCHOLARSHIPS

- Barrick Gold Scholarships of \$30K* awarded to Mining Eng Students: 2 Seniors (\$10K), 4 Juniors (10K) and 5 Sophomores (\$10K)
- Nuclear Regulatory Commission Scholarships of \$42K* awarded to Nuclear Eng Students: 3 Seniors (6K), 5 Juniors (\$15K) and 7 Sophomores (\$21K)
- Rio Tinto Scholarship of \$7K* awarded to 1 Mining Eng Student
- International Society of Explosives Engineers Scholarship of \$13.5K* awarded to 14 Mining Engineering students.
- The Tom Holmes Endowed Scholarship of \$100K* in Mining Engineering

### THE DETONATORS

Dr. Paul Worsey, Professor of Mining Engineering lead an effort this summer to demonstrate the use of explosives for positive causes in a series called the Detonators. Series will



run on Discovery Channel for 13 weeks

## ABET Updates

### ABET EVALUATION CRITERIA

- Nine Criteria: 1. Students; 2. Program Educational Objectives; 3. Program Outcomes; 4. Continuous Improvements; 5. Curriculum; 6. Faculty; 7. Facilities; 8. Support; and 9. Program Criteria

### MINING ENG. UPDATES

- Mining Eng. met all requirements for Criteria 1, 4-9. However, the wording and assessment of objectives and Outcomes required revisions to meet Criteria 2 and 3.

### NUCLEAR ENG. UPDATES

- Nuclear Eng. met all requirements for Criteria 1, 3-9. However, the wording and assessment of objectives required revisions to meet Criteria 2.

### ACADEMY SUPPORT

- Academy support was critical in meeting the requirements for Criteria 7 and 8.

## Student Activities

### COMPETITIVE EDGE

- Men and Lady Muckers displayed their skills in the 2008 Mucking Competition in Rolla. The Co-Ed Team was 1<sup>st</sup> in its Division; Men’s Team A was 2<sup>nd</sup> & B was 3<sup>rd</sup>. Ladies’ Team A was 2<sup>nd</sup> & B was 5<sup>th</sup>.

The Members of the Missouri S&T Mucking Teams



## Awards & Events

### MORE AWARDS

- Chalk the Walk: SME-MS&T placed 2<sup>nd</sup> overall with \$100 award for the Chapter

### UPCOMING EVENTS

- April 8-10, 2009: Rolla Mining Engineering Homecoming
- February, 2009: NSSGA-SME Mine Design Competition in Denver
- April, 2009: Mucking Competition at Montana Tech
- May, 2009: Mine Rescue Team competes nationally in New Iberia, LA