

Department

- Home of Mining, Nuclear and Explosives Engineering
- Mining Engineering: Largest program in US from the 2007 SME Statistics
- Nuclear Engineering: 5th largest undergraduate program in the US based on the 2007ANS Statistics
- Explosives Engineering: The only such program in the US
- Nuclear Reactor & Experimental Mine Facilities for Research and Education



The Future

- Growth and Excellence in Research and Education
- Stronger Partnerships with Industry, Alumni and the Academy
- Well Diversified Programs



Nuclear Camp



Botswana



Explosives Camp

Students

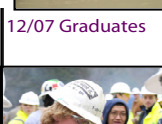
- 293 undergraduates, 77 graduate students (61%/98% growth since 2004)
- \$250K in departmental scholarships given out in AY07-08
- 100% placement; \$60K starting salary



12/07 Graduates



Nuclear Engineering Students



Looking into Mars



An Old Drilling Technology



FS2009 Botswana Students

Faculty

- 14 FTE T/TT Faculty
- 2007-08 Recognition

| | |
|----------|--|
| Apel | Assoc Professor with Tenure SOMEER Teaching Award |
| Frimpong | Chair, UNESCO Sustainable Energy; Board Member of NASULGCC; Associate Editor: ASCE JEE, IJME |
| Galecki | WJTA Board Member |
| Mueller | SOMEER Teaching Award |
| Summers | Honorary Diploma by Koszalin University of Poland Life Time WJTA Member |
| Taylor | 2006 UMR-MSM Alumni Staff Person of the Year |
| Tien | Member, Federal Technical Panel on Mine Safety and Health |
| Worsley | SOMEER Teaching Award |

NEW FACES IN DEPARTMENT



Dr. Jason Baird
Assoc. Prof.



Dr. K. Awuah-Offei
Assist. Prof.

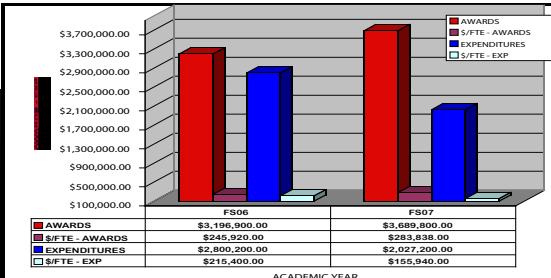


Dr. Carlos Castano
Assist. Prof.

- Two Senior Faculty Members join the Department in Fall 2008

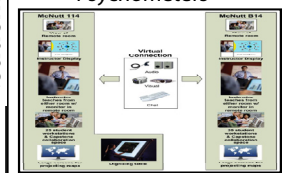
Research

- FY 2007-08 Awards, Expenditures, and FTE \$ Values in Figure Below.
- Department is Partner with 5 Universities on a DHS COE of \$2.5M/year for 5 Years
- DoD-Funded Demilitarization Project = \$3.65M
- \$4M CDC-NIOSH Center with CSM, UT, MT
- AmerenUE-DOE \$500K for Callaway Nuclear Plant Life Extension

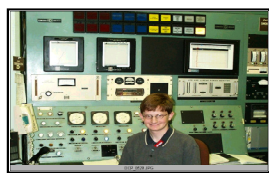


Academy Initiatives

- Academy has provided \$80K for critically needed undergraduate lab equipment.
- A new \$300K McNutt CLC is being funded by the Academy for ABET accreditation
- NucEng Equipment: 2 Digital Multimeter, BH-1 Tail Pulse Generator, 12 Glass Geiger Muller tubes, 0-3KV High Volt Power Supply, MCS PCI Multichannel Scaler
- MinEng Equipment: Total Stations, Vent Lab PC, Wilfley 13A Concentrating Table, Trimble HD50 Meters, 4 Sling Psychrometers



McNutt CLC



Nuclear Facility

May 2008

Chair's Corner



Dear SOMM Academy Members,

Greetings from the Academy, and welcome to the first edition of the SOMM Academy Newsletter. The annual meeting on April 17th was productive and fun, and the Executive Committee felt all Academy members might want to know about the good news being shared at the meeting. In this Newsletter you will find updates from each of the departments highlighting the great things the students and faculty have achieved over the past year, and a copy of the minutes from the meeting. Overall our departments are alive and well, and I think we can all be proud of our alma mater. All indicators are growing, including enrollment, placement, scholarship support, and research funding.

Academy Scholars: This year the scholarship committee decided to award scholarships to one student from each of the seven SOMM disciplines. In past years only two were awarded. Considering the overwhelming response from the students and their families, the desired effect of gaining greater visibility with the students has been achieved.



The 2008 SOMM Academy Scholars: (from left) Kyle Rackers (MetE), Jeff Joggerst (NucE), Kyle Te (GeoE), Julie Baumann (CerE), Kyle Rybacki (GeoSc), Matt Bowers (PetE) and Tanya Stephan (MinE).

The Academy has transformed into a group of alumni who are taking action to ensure the long term viability of our home departments. The question is, How can the Academy help ensure the future viability of the SOMM departments ?

- Facilities: by providing resources for undergraduate equipment, laboratory/computer facilities, or seeking donations
- Recruiting: by providing endowed scholarships, and giving presentations at K-12 schools near you.
- Placement: by hiring permanent, coop and summer interns, or providing leads to employment opportunities
- Advising: by serving on departmental and university-wide advisory committees
- Inspiration: by your continued support of the Academy Scholars program, and speaking at seminars

Your help and involvement is needed in as many ways as possible, and the best way to learn about what is the best fit for you would be to come to the Academy meetings. The format has changed since last fall – department chairs now present not only what's new and exciting, but also the key challenges the departments are facing in making sure student success remains a top priority. At the Fall meeting we will visit all three departments and look at their facilities and equipment. With this in mind we are interested in your ideas about what is meaningful to you, and how attendance at the Academy meetings can be improved. Please e-mail us at mmacademy@mst.edu

I am hopeful history will show that the SOMM Academy was the group that galvanized not only support for the SOMM disciplines, but also spurred on a greater involvement by other Academies on campus to become more active in helping students achieve their dreams.

Dianna Tickner

The SOMM Academy now has a new and permanent home in the Department of Mining and Nuclear Engineering. Judy Russell is the main contact for the Academy; however, as any miner knows, we work in teams! Shirley Hall and Barbara Robertson are helping when the need comes up. Barb is watching the financial side. Judy's number is 573.341.7652 or you can reach her via email at jrussell@mst.edu. If you are on campus, stop by and meet the three Ladies!

SAVE THE DATE! The next SOMM Academy meeting will be held on October 17, 2008 - in conjunction with Homecoming. **WE WANT YOU** - we need your help and are looking for volunteers. The Academy is changing and we can use all the help we can get! Please join us.

Students

- 180 undergrad, 65 graduate students (76% / 14% growth since 2004)
- ≈ \$300K in endowed departmental scholarships given out in AY07-08; ≈ \$75K in competitive scholarships from professional organizations
- 100% placement rate; ≈\$55K starting salary



It's a Girl Thing

December 08 Graduates



Faculty

- 17 fulltime T/TT faculty (Undergraduate student: faculty ratio =10.6:1)
- In 2007, the average MSE faculty member:
 - Taught 9.2 hours & earned a 3.1 CET score

Over past four years, more 'Outstanding Teaching Awards than any department on campus

- Generated \$258K in research expenditures

1st on campus- Over past four years, more 'Faculty Excellence Awards' than any department on campus.

2007 Fellow of the American Ceramic Society



Bill Fahrenholtz

AFS Award of Scientific Merit



Von Richards

Research

FY 08 Research #s thru October (most recent data available)

- Proposals Awarded: \$4.34M (22.6% of campus total)
- Expenditures: \$2.18M (16.3% of campus total)

with 6.3% of the faculty on campus

Environmentally Sound Aircraft Coatings



Advanced Steel Castings for Improved Weapons

What's New

- The SOMM Academy provided over \$150K to obtain pieces of equipment critically needed for ABET accreditation:

- MoSi₂ box furnace (\$20K)
- Two annealing furnaces (\$5K)
- TMA-retrofit unit (\$5K)
- MTS compression platens (\$4K)



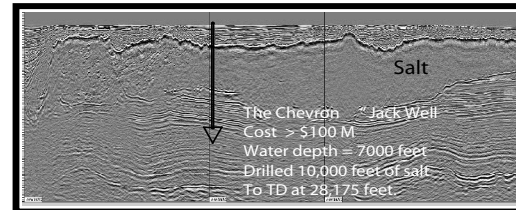
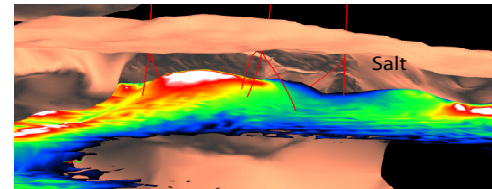
Microtrac / Nanotrak installed in January (\$45K)

Research

FY 08 Research #s thru March, 2008 (last nine months)

- Proposals Awarded: \$1.88 M
- Proposal Submitted: \$6.91 M
- Geographic Information Systems

- Mechanical Earth Modeling \$1.70 M



Students

- 130 undergrads, 90 graduate students, 220 total.
- ≈ \$225 K in endowed departmental scholarships given out in AY07-08;
- Starting salaries:
 - PE over \$75,000
 - GE over \$45,000
 - Geol/Geop averaging \$82,000
 - 0-2 years in petroleum industry.

Field Trips:
Guatemala, Machu Picchu
Oklahoma, Utah, South Africa
Bahamas, Lake Superior



Utah Summer field trip



Brackbill Computer Lab

Faculty

- 17 full time T/TT faculty
- Two new faculty in the fall.
- And searching for a senior level PE.
- Six adjunct faculty teaching regularly.

In 2007, the average GSE faculty member:

- Taught 12.0 hours (four lectures) & earned a 3.25 CET score. Most (3/4) also taught at least one lab each year.
- Generated \$74 K in research expenditures



Just a few of Our 17 faculty members

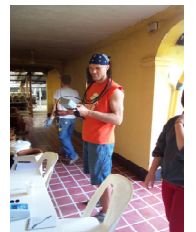
Research

- The SOMM Academy provided over \$75 K to obtain pieces of equipment critically needed for ABET accreditation:

- Core Porosimeter
- Fluid Surface Tensiometer
- Falling Ball Viscometers
- EDP Water Sampling System
- Geoprobe Testing Equipment
- Ground Penetrating Radar System
- Microscope and photo adapter
- Rock Fall Mapping System
- Many more small items



Polarizing microscope with projection system.



Student using water sampling equipment in Guatemala.

Research

What's New