I have encouraged students to get involved in independent research projects and to present their findings at meetings off campus. I pointed out that all the graduating seniors who had participated in research and presented off-campus knew where they were going (i.e., had a job or admission to graduate or a professional school) by their exit interview. I also said that we would find a way to fund these students to travel to off-campus meetings. This year we have a number of students wanting to travel to conferences. It was suggested that my encouragement has "backfired." It seems to me that my encouragement is far from backfiring, it is working! That is great! I want to encourage everyone to keep up the research! I do caution all faculty members that travel support should be limited to the primary author on a presentation or poster. I also do not think that we should support travel to multiple conferences for the same presentation. Determine the best meeting for the work and present it once. As the research supervisor, it is your job to determine who is the primary author of the work. As the supervisor, you should also determine if enough work has been done to make one or two off-campus presentations (to allow travel to one or two meetings). These are not decisions that I, as the Department Head can make.

One a related note: If you have students wanting to travel to conferences, please see the notice for Kinsaul travel support below and make certain that your students apply.

One final bit of related news: I meet with the Graduate Deans later this month. My proposal for a Masters of Science Research is getting some traction. That will really help with departmental research efforts. I will keep you informed!

-- Lou

**Department News**

**Holiday Luncheon TODAY**

On the bridge between Martin and McGee Halls, we will have our annual Holiday Pot Luck Luncheon starting at 11:30 AM today. If you were unaware of this, my sincere apologies. I forgot to put into in to previous newsletters. Some very prominent people were aware of the luncheon. If you are one of those prominent individuals, please accept my apologies and show for the luncheon. There is always plenty of food.
Final Grades are Due 1:15 PM on Tuesday 13 December
Special note on students receiving an F: You must put the last attendance date or banner will not recognize ANY of the grades. When you go back in to view your grades, they will be gone. If you don’t know the last date of attendance....enter an approximate date.

Fall Commencement on 16 December
Fall Commencement will be at 4:30 p.m. for the College of Arts & Sciences at Pete Mathews Coliseum on Friday, December 16, 2011. We have four students graduating. David Hunter Davis (Chemistry), Brian Ogendi (Chemistry), Victoria Gosnold (Geography) and Brian Morgan (Geography). Congratulations to all the graduating students.

Board of Trustees Report Items to Lou by 16 December
Please send to Lou your scholarly accomplishments for the time period of October, November and December 2011 by Friday, 16 December, so that I can compile them and forward them to the Dean.

Student News

Spring 2012 College Of Arts and Sciences Symposium
The symposium will be February 15 & 16, 2012. All students are encouraged to participate. If you have presented a poster of your work at other meetings, consider an oral presentation at the symposium. The deadline for the submission of abstracts is January 31st 2012. To submit your abstract, use the following link:
http://www.jsu.edu/cgi-bin/apps/symposium

Student Travel Grants
We have funding from Sam Kinsaul to support student travel to present research work at conferences. Applications are due by 31 December. See Lou or Tracy if you need an application. Requests up to $500 can be made.

Bama Grad Expo 2012
The University of Alabama (UA) will host Bama Grad Expo 2012 on 12-14 January, 2012. This is a great opportunity to explore the graduate options at UA. If you complete an application for one of UA’s graduate programs, all expenses - travel, lodging and meals - will be paid for your visit. See Tracy if you want a brochure. You can also get more information on-line at:
http://www.BamaGradExpo.ua.edu
Study Leave News

Bananas to the market

Harvesting the rice

Dancing

Students and Faculty at Adikavi Narmaya University, one of Joe's talk venues
Top Ten List

This week we have the top ten Physics videos. Links are provided

10. **Musical Tesla Coil**. Steve Ward can tune his Tesla coil so that the crackle of each spark sounds like a musical note.
   [http://www.youtube.com/watch?v=3ff_AXVlo9U&feature=player_embedded](http://www.youtube.com/watch?v=3ff_AXVlo9U&feature=player_embedded)

9. **Mythbusters Play with Helium Sulfur Hexafluoride**. The chemists try to claim this, but it is physics. Adam Savage compares helium to sulfur hexafluoride?
   [http://www.youtube.com/watch?v=d-XbjFn3aqE&feature=player_embedded](http://www.youtube.com/watch?v=d-XbjFn3aqE&feature=player_embedded)

8. **Boomerang in Zero Gravity**. Japanese astronaut Takao Doi proves that a boomerang will always return to the person who threw it — even in outer space. (Weren't we taught that gravity had and important role in return of a boomerang?)
   [http://www.youtube.com/watch?v=q2ozs0tPr4k&feature=player_embedded](http://www.youtube.com/watch?v=q2ozs0tPr4k&feature=player_embedded)

7. **Helium Superfluid**. At extremely low temperatures, some liquids stop playing by their usual rules.
   [http://www.youtube.com/watch?v=2Z6UJbwxBZI&feature=player_embedded](http://www.youtube.com/watch?v=2Z6UJbwxBZI&feature=player_embedded)

6. **Halo of Water Vapor Appears Around Supersonic F-14 Jet**. The shockwave surrounding a supersonic jet can compress air so much that the ambient moisture will form a cloud. (You have probably seen the photograph. While the photo is neat, the video is awesome!)
   [http://www.youtube.com/watch?v=QjpikTn2qAk&feature=player_embedded](http://www.youtube.com/watch?v=QjpikTn2qAk&feature=player_embedded)

5. **Sound Waves on Fire**. Reuben’s tube is a classic way to demonstrate the concept of a standing wave. Pump some flammable gas into one side of a tube, and attach a speaker to the other side, and watch what happens to the columns of flames that issue from small holes along the top. (Gives a whole new meaning to “Baby, Light by Fire!”)
   [http://www.youtube.com/watch?v=HpovwbPGEoo&feature=player_embedded](http://www.youtube.com/watch?v=HpovwbPGEoo&feature=player_embedded)
4. **Water Droplets in Zero Gravity.** An amazing set of experiments performed on the international space station. (Zero G looks like too much fun!) 

3. **Fun with Ferrofluid.** Magnetic fields creating dynamic sculptures. (Physics can make even the worst music tolerable.) 
[http://www.youtube.com/watch?v=I5Ti6PeGdNQ&feature=player_embedded](http://www.youtube.com/watch?v=I5Ti6PeGdNQ&feature=player_embedded)

2. **How Superconducting Levitation Works.** A fantastic lesson about exotic materials and magnetism in just over six minutes. 
[http://www.youtube.com/watch?v=Z4XEQVnIFmQ&feature=player_embedded](http://www.youtube.com/watch?v=Z4XEQVnIFmQ&feature=player_embedded)

1. **Large Hadron Collider Rap.** Kate McAlpine and her friends filmed this amazingly informative song within the caverns of the Large Hadron Collider at CERN. (You can watch physicists dance—off beat.) 
[http://www.youtube.com/watch?v=j50ZssEojtM&feature=player_embedded](http://www.youtube.com/watch?v=j50ZssEojtM&feature=player_embedded)

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**Contact Details**

If you have items of news or interest that you would like included in the Department of Physical and Earth Sciences newsletter, then contact Tracy Casey before noon on Thursdays at: tscasey@jsu.edu or phone (256) 782-5232.