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Hello, Friend:

Some interesting news occurring across campus: NCAA has ruled on the *Indian* mascot issue, there's a new General Education program, fewer total credit hours to graduate, no more Communications department, no Philosophy or Environmental Science majors, and (most importantly?) the Physics Department has hired a new astronomer: Dr. Wayne Keith. Dr. Keith has been teaching at Angelo State University in San Angelo and both he and his wife are from a variety of Texas locales. We expect that he will make great connections to the students in the Astronomy class and to our majors. I will leave the details of the other items to your McMurry news outlet. As to Dr. Keith, he and his wife have moved to Abilene and he has been on campus since June 1. So if you are in the area, feel free to stop by and introduce yourself. I would be happy to introduce you anytime.

The growth of the program and the recent successes of our alumni have allowed us to hire an adjunct to teach some engineering courses. Mr. Flip Harvey has a background in electrical engineering and is teaching Statics, Dynamics, and Digital Electronics for us. He teaches one class per term with Digital coming up this fall. It looks like he may be with us for a while.

We proudly graduated four students this term, alphabetically: Chad Mikulec, Tim Renner, Bonnie Schneider, and Jed Taylor. This is the first group with whom we have tried responding to Texas Tech's call for graduate students in engineering. You'll recall Tech came to us in 2002 encouraging us to send our physics and math students to their engineering programs. There have been some difficulties, but we are working through them as best we can. We are hoping to keep this moving smoothly because there are more students in the pipeline and it looks like a reasonable opportunity.

We are still looking at 4-6 graduates next year (May '07, another big year). We will have a few transfers to engineering undergraduate programs, but we may get as many as 8-10 graduates in Spring '08. On the other hand, our 15-student freshman class has become 1 chemistry student, 1 architecture-transfer, and 4 physics majors. The majors are actually 2 students interested in an undergraduate engineering transfer and two students who may be astronomers or physicists. Fortunately, we expect several of the original fifteen students to return this fall in a much better position to succeed in the introductory course.

Speaking of students, two of the seniors had research projects. One was an investigation into sonoluminescence – making light emit from the bursting of bubbles caused by sound vibrations on a glass beaker containing water. There were technical difficulties that we hope to iron out by inspiring the next round of students. The other project was originally intended to be a continuation of a summer REU program on gravity waves. While the people in charge of the summer project graciously allowed us to use their data, the analysis package was in Mathematicatm. After purchasing Mathematicatm, we realized that the useful portion of the code was written by somebody not involved in the summer project and unavailable to us. At the last minute, this turned into a study of the pendulum. Two lessons learned. This spring we also began investigation into a new project: a homemade bubble chamber to measure radioactivity.

Two of our students will be working on this project in the fall. This spring, they wrote up a feasibility proposal with a task schedule, budget, and background.

You may recall that this past spring, I did not schedule any alumni lectures because we had the job candidates give presentations. Amid this busy schedule, we were able to make time for a trip to the Fort Worth Lockheed-Martin, due in no small part to Dick Richardson, class of '71! The trip was wonderful and it was obvious that a lot of preparations went into hosting ten students who went. Unfortunately, Dr. Bykov (as a foreign national) had to sit out for one section of the tour. The students were quite pleased and a few are reconsidering their decisions about what they would like to do with their future. Unfortunately, all cameras were held for the duration of the visit, so there are no photos to show off the tour.

This Fall, I have not yet scheduled any alumni lectures or tours. We could use some volunteers; I will consider friends of alumni upon your recommendation. I always like to have new faces, but I understand the difficulty of travel. I would like to keep a 3-4 year gap between any individual's talks so that there is a new group of students in the audience. If you are in the neighborhood (like Dallas or Waco or Austin), then consider popping up for a day to visit campus. As I said, we need volunteers for Fall of '06: Homecoming is usually in October if any of you happen to be here that weekend. While you are here, you can see the redesigned student workspace. We have torn out a wall to make room for the new professor in the office suites. It turns out to be difficult to explain without drawing a diagram ... or without your actually coming to see. Suffice it to say that there is now significantly more room for student to work (i.e., hang out, read, do other homework, etc.) in the central space between the offices. They have finished painting and we should move in the furniture soon. Since this letter seems not to fit on two sides of a single page, I have room for a picture (below); but, it doesn't do it justice. You may recall that there used to be a wall across this space at the end of the bookshelf on the right.

As if this wasn't enough, the majors also decided to initiate a project that was begun in, I think, 2002. At that time, Tim Rackler got some people excited about building a trebuchet. The department decided to start with a scale model catapult and then, as planning was about to start, Tim decided to minor (rather than major) in Physics and the full scale one never quite got built. Well, this spring, inspiration took hold once again and the base was built. The supports were cut and we have volunteers to finish it off this summer or Fall. I hope to get some photos of the project on the web page soon. (Of course, I *meant to* get this letter out in May...) I am including two photos at the end of this letter. In the last photo, the fellow on the left is Dr. Tikhon Bykov. Mr. Harvey is in the middle. I am the one behind the camera (!). The physical constraints given to the students were: "It must fit through the shop double doors."

Furthermore, we are moving forwards on bringing in a Nobel Laureate to speak in late March. The Texas section of the joint meeting of APS (American Physical Society), AAPT (American Association of Physics Teachers) and the SPS (Society of Physics Students) is meeting across town at Abilene Christian University on Mar 22-24, 2007. Our department will be co-hosting and McMurry's Science and Math Advisory Board (SMAB) is sponsoring a Nobel Laureate to celebrate the sciences at McMurry. Mark the date on your calendars. It will be a fine time to come visit Abilene. We have asked Dr. Frank Wilczek, 2004 Nobel Prize in Physics, to come and speak to a general audience. I have many good reports on his speaking ability and I am excited to be able to have him on campus.

You might check the alumni webpage occasionally to see who else has checked in and sent us an update. I intend to post some trebuchet photos to the webpage.

<http://www.mcm.edu/academic/depts/physics/trebuchet.html>

As always, if you're in the area, even if you don't want to give a presentation, we'd love to visit if you can spare the time. I expect our students would also be grateful if you could forward

information about internship possibilities. If you need an excuse to stop by, come to check out the new office space or make plans to be in town for the Nobel speaker around Mar 23-24, 2007.

Enjoy your summer!

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