

**Minutes of the Meeting of the
Undergraduate Committee
Electrical and Computer Engineering Department
University of New Mexico
February 12, 2004**

The meeting was called to order at 3:43 P.M. in EECE Room 237 on February 12, 2004. Present were the following: Gregory L. Heileman, Balu Santhanam, Christopher Smith, Wennie Shu, Peter Dorato, and Roberta M. Menicucci. Absent were Charles Hawkins and Diana Huffaker.

The Committee agreed to hold future meetings at 2:00 P.M. on Wednesdays.

The Agenda Items to be discussed are:

1. ABET Mock Review and Class Assessments
2. Math Deficiencies (Balu and Peter)
3. Support for Controls Lab for ECE 446 and 446 (Peter)

Peter Dorato represents the Controls area; Balu Santhanam represents Signal Processing; Wennie Shu and Christopher Smith represent Computer Engineering; Diana Huffaker and Charles Hawkins represent microprocessing.

The first item of business concerns curriculum issues. Dr. Dorato is requesting a hands-on lab for this theory-based ECE 445 class. Dr. Heileman said he would have to check with the Chair to see if there is money in the budget to cover this.

The ABET mock review will be held on Monday, February 18, 2004. The ECE Department portion of the School of Engineering will be overseen by a man from AT&T who will be available on Monday from 1:00 to 2:00 P.M. and on Tuesday from 2:00 to 3:00 P.M. in Room 118.

There are still many faculty who have not turned in their class assessments and outcomes to Jared Herweg. From now on, faculty will have to keep these current each semester. It will be necessary to track their classes so we can show improvement over the next five years. It is important that faculty understand this.

The Chair is considering whether or not to tie whether these are kept current in with their teaching reviews. Therefore, the Undergraduate Committee agreed to set a specific time for faculty to get in these class assessments and outcomes each semester. The deadline will be the second week of the term following in which the course was taught.

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The Committee also agreed that one specific format needs to be agreed upon so everyone will submit their work in a uniform manner/

There also needs to be feedback from the course coordinators who should meet with the instructors each semester to review the assessments so we will be better prepared for the next ABET. The course coordinator is the person who is responsible for making sure the assessment is provided on a semester-by-semester basis.

The next item discussed was regarding Math Deficiencies for ECE 314 and 340. A memorandum prepared by Balu Santhanam is attached to these Minutes and made a part hereof.

Balu feels that there is a common problem in these classes. The top few students are well prepared in Math and are able to keep up with the material in 314 and 340; but the rest are very deficient in Math. Thus, the students become "dead weight" for the instructor who is there to teach 314 and 340, not Math. Instructors get impacted when they teach these courses when it comes to students filling out their ICES forms at the end of the term.

Solutions are outlined in Balu's memorandum. He would like to see external help given to students by utilizing the GA's more effectively; the possibility of giving an exam at the beginning of the class; or having recitation classes supervised by the GA's to help the students. The right GA's should also be assigned to the right classes and they should be required to hold office hours.

It is possible that we may have to change the prerequisites for these classes so we don't get trapped into remediation efforts.

Balu has proposed that students receive a B- or better in Math 162 and Math 163 before being allowed to take 314 and 340. We may want to look at each of our ECE courses and set a minimum grade on the prerequisites at the same time.

The Committee discussed starting with raising the entrance requirements in order to bring in better educated and prepared students. At the next meeting, we will discuss raising the bar to get in.

The last item discussed was getting a hands-on lab set up for the theory classes of ECE 445 and 446. Money is collected each semester in the form of \$10.00 per credit hour fees from students that comes to our department through the Dean's Office. The lab

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would require space, equipment, technicians, etc., and be recognized as part of the course.

Greg said he would check with Christos to see if there is money available to set one up.

A discussion was held as to whether or not a new class should be set up which would be a one-credit service course to teach MATLAB and other tools each semester. This would be similar to a class taught in the past on C and UNIX for those who needed to learn it. The content would be able to change whenever some new tools come out that will help students be more successful in their three-credit courses. Balu will look at creating such a class.

The meeting was adjourned at 4:45 P.M.

Gregory L. Heileman, Chair
Undergraduate Committee
Electrical and Computer
Engineering Department

Attachment