

School of engineering

**Program wrap-up session**

Spring 2013

Program \_\_Electrical Engineering\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course \_EE335 / ECE 435\_\_\_ Course name \_\_\_Microelectronics

Instructor \_\_Ryan Munden\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **High points of the course (“successes”):**

Pedagogy employed\_\_Primarily integrated lab, with some lectures. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Homework - level of student response and feedback \_\_\_Only a few homeworks, including a writing assignment. Most students responded well, faced some difficulty with international students’ writing. They did not know how to construct an essay.

Exams and Projects – level of student response and feedback \_\_2 exams. 1 PCB design project, the students did layout, Batch PCB spin, hand population, and testing of an electronic design to learn design rules and best practices through hands-on interaction. This went well, but had a few bumps with Ultiboard “new-ness”. We had some demos of thick film process, and PCB router.

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Student Attendance and overall Performance\_Nearly all students attended all classes, and performed adequately. A couple did a very good job.

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Any exceptionally good students? \_\_Kim Sasso (lots of prev. experience). \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Any exceptionally poor students? \_\_\_.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Problems encountered:**

Textbook \_\_\_ Charles A. Harper. Electronic Packaging and Interconnection Handbook. 4th ed. CRC Press. (2004) ISBN: 978-0-07-1430487

Return on Assignments \_\_\_Good, most HW turned in on time. Projects turned in on Mentor. There were some delays with project turn in, because of learning curve with Ultiboard primarily.\_\_

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Instruction method – was it student-centered? \_\_\_Yes, very hands-on, in class lab and instruction.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Have you had the chance to try new methods, e.g. inductive learning? Did it work? \_\_\_\_\_\_\_\_\_\_

\_\_all new, I think the students enjoyed the lab oriented approach.

Problems with Course prerequisites\_prereq courses are adequate, some took concurrently with EE331, they did okay, but definitely it is better to have finished that course first.

Student feedback\_\_Generally positive, and we had good dynamic in class, with frequent discussions about topics of interest, particularly feedback!.

Student Performance, on the average.\_\_good,.

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Grade distribution\_\_still grading\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Action steps**

State of completion of Course Portfolio\_\_all course work is available, working on assessments of ABET outcomes quantitatively linked to course assignments\_\_\_\_\_\_

Has the course syllabus addressed Goals and Outcomes (as in Form A), and has class time per outcome been allocated as scheduled (Form F)? \_\_\_syllabus addresses goals and outcomes, Form A & F will be completed as needed (if needed).

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Change course prerequisites? \_\_No\_\_Comments\*\_\_\_. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Change course content? \_No\_\_\_\_Comments\*\_\_\_ pace is quick, content is dense. May need to reduce number of projects by 1 next semester. \_\_\_\_\_\_\_\_\_\_\_\_\_

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Change course objectives and/or outcomes\_No\_Comments\*\_Course objectives and outcomes are aligned with ABET outcomes, seems good.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Recommendations for further improvement\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_Need to improve support for labs a little more. Chris was stretched a little thin because of Mechanics Lab. Need to improve useability of microelectronics lab for thick film, buying more screens, development chemicals, etc. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Any advice to your fellow faculty?\_\_\_\_DO PROJECTS!

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1. **instructional environment**

Please comment on any problems that were encountered because of inadequacies in the classroom environment, lack of supplies, inadequate service from staff:

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\_\_\_Batch PCB was great, has now been bought out, but should still be useable. Will be just slightly more expensive, but not bad.

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Were the problems brought to the attention of the Dean? \_\_\_\_NA\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Were the problems corrected in a timely fashion? \_\_\_NA\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* use an additional sheet if necessary.