

ECE Curriculum Committee Meeting Minutes for November 19, 2009

Members present: Tanguel Basar, Kent Choquette, Lynford Goddard, Douglas Jones, Erhan Kudeki, Stephen Levinson, Steven Lumetta, Michael Oelze, Sanjay Patel, Pramod Viswanath

1. The Minutes of the October 22, 2009 meeting were approved with minor corrections.
2. Doug Jones reported that he had mistakenly failed to notice IB 150, 202, 203, 204, and 302 in the required curriculum for Integrative Biology when he reviewed and recommended IB courses last year for technical elective credit, and that they satisfied our guidelines on technical electives. The Committee approved IB 150, 202, 203, 204, and 302 for the technical elective list.
3. The Curriculum Committee approved CS 125 for free elective credit.
4. The Committee approved the proposed change in the name of ECE 316 from Engineering Ethics to Ethics and Engineering.
5. Erhan Kudeki asked the Committee to consider granting technical elective credit for IB 107: Global Warming, Biofuels, Food. The Chair insisted on postponing the discussion and promised to place it on the agenda of a future meeting.
6. The proposed ECE 310 outline, to replace the old ECE 410 in the EE Advanced Core, was reviewed. Jones noted that the Signal Processing Area intends to propose a new ECE 410 consisting of the material removed in the 410 to 310 migration and material now taught only at the graduate level in ECE 551. He replied that whether a revised 551 course would continue is undecided.

Kent Choquette reiterated the Committee's philosophy that the Advanced Core courses should primarily serve the needs of the students outside the specific area, and asked whether this course and outline met that goal. Jones suggested that all topics in the Advanced Core courses should be "must see" material for at least 60% (3 of 5) of our undergraduates. A poll of all of the Committee members present found that those from the physical electronics area considered about a credit-hour's worth needed for students in their area, and that all other areas considered the bulk of the material relevant, thus reaffirming ECE 310's position in the Advanced Core. However, with the possible exception of the communications and signal processing areas, the remainder of the committee strongly felt that the course should be shortened to three credit hours. The Committee suggested the removal of downsampling and upsampling (3 hours), the applications to speech, medical imaging, and communications (3 hours), reducing the quiz/exam time from six to three hours, and some shortening of the filter design. This would bring the total lecture hours to the 43 hours consistent with a three-credit-hour course. The Committee emphasized that it would like to see the material as well as the hours reduced to maintain a reasonable workload and reflecting the maturity of third-year students.

The Committee expressed a preference for uniformity at three credit hours for the Advanced Core courses (unless they contain a significant lab component). It was also noted that migrating the above content to ECE 410 will make it easier for ECE 410 to serve incoming graduate students who take it as a first DSP course.

The Committee recommended that the course be taught on a Monday/Wednesday/Friday schedule in the expectation that students will better absorb this material in the shorter, more frequent format.

It was decided to ask Andy Singer to revise the ECE 310 proposal in light of these suggestions.

7. The Committee adjourned at 1:50 PM.

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