ECE Curriculum Committee Meeting Minutes for February 18, 2010

Members present: Tangul Basar, Todd Coleman, Lynford Goddard, Mark Hasegawa-Johnson, Douglas Jones, Stephen Levinson, Jonathan Makela, Sean Meyn, Michael Oelze

1. The Minutes of the January 28, 2010 meeting were approved with minor corrections.
2. The Minutes of the February 4, 2010 meeting were approved with minor corrections.
3. The Minutes of the February 11, 2010 meeting were approved with minor corrections.
4. The Committee began work to develop a list of essential core computing topics for both Electrical and Computer Engineers. Doug Jones presented his list of suggested topics supplemented by those from the incomplete list already compiled two years ago by the Curriculum Committee. The Committee decided to use this list as a starting point for the discussion. Steve Levinson argued that Electrical Engineers need more applications programming; Jonathan Makela agreed, and after considerable discussion, summarized the concern with the observation that our students struggle to translate an analytical description of a computation into a program. The Committee agreed that this ability to apply programming to other engineering applications should be added to the essential computing core.

   Erhan Kudeki argued that implementation of basic numerical computations is essential. Jones and Meyn felt that this is not core material, but most of the Committee agreed with Kudeki and added this to the list.

   The Committee agreed that programming should be taught in a language commonly used in practice. Some suggested that Python might be a better choice today than C, but others disagreed. Kudeki argued that numerical programming in an application-specific language such as Matlab is essential; others disagreed, but the majority agreed that Matlab should be introduced early in the core curriculum.

   The Committee completed its initial discussion and selection of topics in programming, networking, and computing applications; the evolving list can be found [here](#).
5. The Committee adjourned at 2:56 PM.

These minutes drafted by D.L. Jones, February 18, 2010; Last updated February 18, 2010