Example

University of Hawaii
Department of Electrical Engineering

Communications Circuits Track Proposal

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Summary

My interest is in designing circuits for communications. I propose to take courses to enable me to design high performance communication circuits. The topics I propose to study are communication theory, signal processing, analog circuit design, digital circuit design, and wave guides. Courses that cover these topics are

EE 341 Introduction to Communication Systems (3)
EE 341L Introduction to Communication Systems Lab (1)
EE 361 Digital Systems and Computer Design (3)
EE 361L Digital Systems and Computer Design Lab (1)
EE 366 CMOS VLSI Design (4)
EE 415 Digital Signal Processing (4)
EE 372 Engineering Electromagnetics II (3)
EE 372L Engineering Electromagnetics Lab (1)
EE 427 Computer Aided Circuit Design (3)
EE 442 Digital Communications

Communication theory is covered by EE 341, EE 341L, and EE 442; signal processing is covered by EE 415; digital circuit design is covered by EE 361, EE 361L, and EE 366; analog circuits is covered by EE 427; and wave guides are covered by EE 372 and EE 372L.

Proposed Track

The following is my proposed required set of courses. They are organized as Group I and Group II. Group I are courses that are fundamental, and come from Group I of existing Tracks. The Group I courses total 12 credits which is the same as the Group I of Systems and Computer, and one more credit than Group I of EP. Group II are specialized courses for communication circuit design. They are 7 credits total which is one more credit than required for Group II requirements in the existing Tracks.
The outside Track course is EE 415. Since the proposed Communication Circuits Track has Group I and II requirements that overlap all three Tracks and has sufficient breadth, I propose that an “outside Track” requirement does not make much sense here. Since EE 415 is four credits, this covers the outside Track as well as a lab requirement.

There is also an upper division EE Technical Elective requirement, which is planned to be filled by EE 427 if it is available. Otherwise, another EE upper division course will be taken.

**Group I**

EE 341 (3), EE 341L (1) Communication Theory  
EE 372 (3), EE 372L (1) Waveguides  
EE 361 (3), EE 361L (1) Digital Circuit Design

**Group II**

EE 366 (4) VLSI Design  
EE 442 (3) Digital Communications

**Outside Track**

EE 415 (4) Signal Processing

**Upper Division Technical Elective**

EE 427 (3) or other upper division EE course

**Future Course Schedule**

All of the courses in the proposed Communications Circuit Track are part of the Planned Course Offerings Fall 2007 to Spring 2010 with the exception of EE 427.

The following is when they will be offered

**Fall:** EE 341/L, EE 361/L, EE 415  

**Spring:** EE 366, EE 372/L, EE 442

I plan to take EE 366 and EE 372/L in the Spring of my junior year; EE 341/L, EE 361/L, and EE 415 in the Fall of my senior year; and EE 442 and an upper division EE Technical Elective in the Spring of my senior year.