

### UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

June 5, 2006

Acting Dean Mani Soma College of Engineering Box 352180

Dear Mani:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the revised requirements for a Bachelor of Science in Electrical Engineering degree. A copy of the changes is attached.

I am writing to inform you that the Department of Electrical Engineering is authorized to specify these requirements beginning autumn quarter 2006.

The new requirements should be incorporated in printed statements and in individual department websites as soon as possible. The *General Catalog* website will be updated accordingly by the Registrar's Office.

Sincerely yours,

Mark A. Emmert

President

Man

Enclosure

cc: Helene Obradovich (with enclosure)

Mr. Robert Corbett (with enclosure)

Dr. Deborah Wiegand (with enclosure)

Todd Mildon, J.D. (with enclosure EE-20060502)

EE - 2006 0502



## **Creating & Changing Undergraduate Academic Programs**

College: <u>Engineering</u> Depart	tment or Unit: <u>Electric</u>	al Engineering Date: 5/2/06	
New Programs  Leading to a Bachelor of	in	in degree	
Leading to a Dachelor of	uegree with a major Option within the existino ma	in	
Leading to a Minor in			
<ul> <li>□ Revised Admission Requirements</li> <li>□ Revised Program Requirements for Electrical Engineering.</li> </ul>	for the Major in or the Major in Electrical Ention in	within the major in	
Other Changes			
Change name of program from		to	
New or Revised Continuation Pol			
Eliminate program in	***************************************	77-41-19	
Proposed Effective Date: (quarter/year) Autumn 2006			
Contact Person	Phone Num	ber Email	
Helene Obradovich	616-4909	helene@ce.washington.edu	

1. Explanation of and Rationale for Proposed Change: (Please use additional pages if necessary. For new programs, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support, and departmental handouts.)

The Department of Electrical Engineering proposes to modify its undergraduate curriculum requirements to address the following issues: (a) the current curriculum, while successful, is 17 years old and has no room to present the newest topics and technologies in Electrical Engineering; and (b) fewer than half of our faculty were here when the current curriculum was created. Significant research and development activities in our Department – Nanofabrication, Genomics, Speech Recognition – are essentially absent in our undergraduate curriculum, because the current curriculum must be supported, and we do not have the teaching resources to simply add more classes. Furthermore, the students could not take them and hope to graduate with only 180 credits. Thus the current curriculum has become a hindrance to our faculty to bring their research to the students, and an obstruction to our undergraduates in learning the most contemporary material. Since Electrical Engineering is a continually evolving field, the department will face this as a routine challenge and the curriculum must be flexible to accommodate this.

The current curriculum is distinguished by a large core requirement (9 courses) which are typically not completed until the end of the senior year, and a shorter follow-on "capstone" course sequence which leaves little or no space available for electives within Electrical Engineering or more broadly within Engineering. The proposed curriculum reduces the core and extends and diversifies the more focused senior capstone paths, as well as allowing for more electives. The proposed curriculum is modeled upon that of Carnegie-Mellon's ECE Department. CMU's curriculum has been in place for about a decade, and has proven to be successful, robust, and popular.

<sup>\*</sup> For information about when and how to use this form please go to http://www.washington.edu/faculty/facsenate/councils/fcas/1503/.

### Creating & Changing Undergraduate Academic Programs

### 2. Catalog Copy

A. Catalog Copy as Currently Written (Include only sections/ paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.)

### Major Requirements (80-81 credits)

- 1. Engineering Fundamentals (17 credits): CSE 142, CSE 143, E E 215, and E E 235
- 2. Electrical Engineering Core (35-credits): See adviser for details.
- 3. Electrical Engineering Electives (25-credits): See adviser for list of acceptable courses.
- 4. Statistics (3-4 credits): STAT/MATH 390 or IND E 315.
- 5. Grade Requirements: Minimum 2.00 GPA in all E E courses with no grade below 1.0 in any of these courses.

B. Proposed Catalog Copy, Reflecting Requested Changes (Include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications.)

### Major Requirements (80-81 credits)

- 1. Computer Programming (9 credits): CSE 142 and CSE 143.
- 2. Electrical Engineering Core (13 credits): E E 215, E E 233, and E E 235.
- 3. <u>Electrical Engineering Electives (45 credits)</u>. See adviser for list of acceptable courses.
- 4. <u>Engineering Electives</u> (10 credits): See adviser for list of acceptable courses.
- 5. Statistics (3-4 credits): STAT/MATH 390 or IND E 315.
- 6. Grade Requirements: Minimum 2.00 GPA in all E E courses with no grade below 1.0 in any of these courses.

## 3. Signatures (required)

Chair/Program Director	Date	Dean	Date
Janes & Watt	5/2/06	El A: Mushing.	5/24/06
College Committee	Date	Faculty Council on Academic Standards	Date
Bull R7fl	5/23/01		6-2-00
7 1 10			

DRAFT \$Id: new-ee-curric.html,v 1.11 2006/04/27 17:17:17 jdsahr Exp jdsahr \$ DRAFT

### [ N.B. Upon approval, this document will replace the "BSEE Degree Requirements" on the EE WWW site.]

#### General Information

To qualify for the BSEE degree you must successfully complete 180 credit hours of course work. Transfer students must complete at least 90 of these credits from four-year institutions (including the UW); a minimum of 45 credits must be earned in residence at the UW in order to receive the BSEE degree. In addition, students must take at least 30 credits of specific EE coursework in residence at the UW.

The EE Advising Office maintains a <u>curriculum chart [CHANGED; SEE LINK]</u> for each student in the Department (like the one in Appendix 2). This record shows each curriculum area as well as required courses within each area. In addition, you may obtain a DARS (Degree Audit Reporting System) report via the MyUW option on the UW web page (<a href="http://myuw.washington.edu/">http://myuw.washington.edu/</a>). Please note that DARS reports do not always accurately reflect fulfillment of degree requirements; if you have any questions about discrepancies, please contact advisers in the EE Advising Office (543-2142). In addition to meeting regularly with an adviser, you are strongly encouraged to maintain your own record of progress toward your degree using the curriculum chart in Appendix 2. Requirements for the BSEE degree are distributed into nine areas of study:

- Mathematics
- Statistics
- Natural Science
- Computer Programming [CHANGED]
- EE Core [CHANGED]
- EE Major Paths [CHANGED]
- EE Electives [CHANGED]
- Additional Engineering Electives [CHANGED]
- Written and Oral Communication
- Non-EE Approved Electives
- Visual, Literary and Performing Arts/Individuals & Societies
- Free Electives

Each of these areas is described in further detail in succeeding pages of this handbook.

#### Mathematics (24 credits)

The following Mathematics courses are required:

- MATH 124, 125, 126 Calculus with Analytical Geometry 1,2,3 (5 cr. each) (please note that the UW Math department offers several different series of calculus; if you wish to take a different series, consult the EE Advising Office for applicability toward this requirement)
- MATH 307 Introduction to Differential Equations (3cr.) OR Amath 351 Introduction to Differential Equations and Applications (3 cr.)
- MATH 308 Linear Algebra (3cr.) OR Amath 352 Applied Linear Algebra and Numerical Analysis (3 cr.)
- MATH 324 Advanced Multivariable Calculus (3cr.)

#### Statistics (3 credits)

Choose one of the following classes:

- STAT/MATH 390 Probability and Statistics in Engineering and Science (4 cr.)
   (Students intending to obtain a minor in Math should take STAT/MATH 390.)
   (Students who take STAT/MATH 390 will earn 1 more credit than necessary for this requirement; excess credit will apply to Free Electives)
- IND E 315 Probability and Statistics for Engineers (3 cr.)

#### Natural Science (20 credits)

The following natural science courses are required:

- PHYS 121 Mechanics (5 cr.)
- PHYS 122 Electromagnetism & Oscillatory Motion (5 cr.)
- PHYS 123 Waves (5 cr.)
- CHEM 142 General Chemistry (5cr.)

### Computer Programming (9 credits) [CHANGED see [1]]

The following computer programming courses are required of all students:

- CSE 142 Computer Programming I (4cr.)
- CSE 143 Computer Programming II (5cr.)

### Electrical Engineering Core (13 credits) [NEW]

The following fundamental courses are required of all students:

- EE 215 Introduction to Electrical Engineering (4 cr.)
- EE 233 Circuit Theory (5 cr.)
- EE 235 Countinuous Time Linear Systems (4 cr.)

#### Electrical Engineering Major Paths (at least 24 credits) [CHANGED]

Students must select one of the following major pathways, which emphasize depth, and some adjacent breadth in Electrical Engineering: in some cases, one of the courses may originate in a different Department. Each of the paths culminates with a significant design project in a "capstone" course. It should be possible for students to complete several of the paths in their entirety, however only one is required.

- 1. Analog Circuits
- 2. Digital Integrated Circuits
- 3. Digital Computer Circuits
- 4. Electromagnetics
- 5. Signal Processing
- 6. Communications
- 7. Wireless Communications
- 8. Energy Systems
- 9. Controls
- 10. Student-Designed
- Analog Circuits: [Double Check with ECDT] This path emphasizes the design and application of modern semiconductor microelectronics to process continuous signals in continuous time. Examples include stereo amplifiers, instrumentation sensors, and radio receivers:
  - · EE331[5]
  - EE332[5]
  - EE473[4]
  - · EE433[\*5]
  - · EE361[5]
    - suggested additional courses: EE271[5], EE341[5], EE482[4], EE486[3]
- Digital Integrated Circuits: [Double Check with Digital] This path emphasizes the technology of designing digital
  microelectronic circuits which could be implemented as a single integrated circuit with millions of transistors. Example
  applications include computer memory, logic gates, digital ASIC (application specific IC) and various programmable gate array
  systems:
  - EE271[5]

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EE331[5]
EE332[5]
EE476[5]
EE477[*5]
suggested electives: EE341, EE361
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• Digital Computer Circuits: [Double Check with Digital] This pathway emphasizes the design of digital circuits at a somewhat higher level. The design of logic circuits is partially abstracted into various logic families, with considerations of speed, power, and other performance measures.

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EE271[5]
EE331[5],
EE332[5],
EE472[5],
EE478[*5]
suggested electives: EE471[5], EE341[5]
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Flectromagnetics: [Okay'd by FM] This pathway emphasizes the progation

• Electromagnetics: [Okay'd by EM] This pathway emphasizes the progation of electromagnetic waves in space, in transmission lines, and in other structures. There is a short segment on electrostatics as well. We provide a capstone course in antennas, which convert electrical signals to and from electromagnetic waves.

EE271[5]
EE331[5]
EE361[5]
EE480[4]
EE481[4]
EE467[\*4] [[ N.B. should become 5 credits ]]
suggested electives: EE332[5], EE416[4]

• Digital Signal Processing: [Okay'd by SIP] In Signal and Image Processing, we develop powerful methods to process both continuous and discrete signals using mathematical techniques to perform transformations and/or extract information. We deal with a variety of signal forms such as music, video, speech, language, images, sonar, seismic vibrations, medical, and biological. It is a vital technology in many areas: communications, information processing, consumer electronics, control systems, radar and sonar, medical imaging, seismology, and scientific instrumentation. Examples of signal processing tasks include removing noise from voice signals, automatic recognition of human speech for voice activated devices, enabling satellite imaging systems to resolve tiny objects on the ground, enhancing internal organs in CAT scans, compressing music signals for portable music players (such as lpods), and compressing video for DVD and videoconferencing.

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EE341[5]
EE416[4]
EE440[4]
EE442[3]
EE443[*5]
CSE473[3]

suggested electives: EE271[5], EE461[4]
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• Communications: [Okay'd by COMM] This pathway emphasizes modern analysis for transporting information from one place to another through wired or wireless communications, and from one time to another, as in data storage.

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EE341[5]
EE461[4]
EE416[4]
EE417[4]
EE418[3]
EE420[*4]

suggested electives: EE361[5]
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• Wireless Communications: [Okay'd by COMM & EM] This pathway emphasizes the intersection of communications theory and the electromagnetic physical layer. Students who complete this path will be well prepared for design of many

radio systems, cell phones, GPS, WiFi, BlueTooth, etc. This is a challenging path; students will effectively complete the Comm, EM, and Analog Circuits paths.

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EE341[5]
EE361[5]
EE331[5]
EE332[5]
EE481[4]
EE467[*4] or EE420[*4]
EE416[4]
EE417[4]

suggested electives: EE480[4], EE420[4], EE433[5], EE473[4]
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- Energy Systems: [Awaiting Energy Response]
- Controls: [Okay'd by Controls] In this path way we investigate means for controlling dynamic systems through (primarily) electrical signaling, mostly digital, but occasionally analog means. Applications include aircraft controls, force-feedback (haptic) displays, vibration reduction, and prosthetic limbs.
  - EE271[5]
    EE341[5]
    EE472[5]
    EE447[4]
    EE448[3]
    EE449[\*4]
  - suggested electives: (none yet)
- Student-developed curriculum.
   Students may propose a custom path after consulting with faculty and the Advising Office. Such one time paths must be approved by the Associate Chair for Education.
- Under development: (Not Part of Proposal)
  - Automation (Controls; Hannaford):
    - EE271[5]
    - EE484[4]
    - EE472[4]
    - EE447[4]
    - EE448[4]
    - EE449[\*4]

Bio-Control (Controls; Klavins):

- Bioen301[4]
- Bioen302[4]
- EE341[5]
- EE472[5]
- EE447[4]
- EE448[3]
- EE449[\*4]

If you are unable to take the designated capstone course from your selected Major Path due to unusual circumstances, an independent design project (at least 4 credits) may be approved as a replacement. A proposal for such a replacement must be approved by the Group Chair for your specialization area and the Faculty Undergraduate Program Coordinator. Consult the undergraduate adviser for more information on this process.

#### **EE Electives [CHANGED]**

In addition to completing the <u>Electrical Engineering Core</u> and at least one of the <u>Major Paths</u>, students must take additional EE courses so that their total of EE credits equals or exceeds 58.

Descriptions of the six specialization areas are available on the EE web site at: <a href="http://www.ee.washington.edu/undergrad/areas.html">http://www.ee.washington.edu/undergrad/areas.html</a>. In addition, the EE Advising Office holds regular information sessions in which faculty members describe and discuss the various areas.

#### **EE Seminar Courses**

Students may be able to use one credit of an approved EE 400 level seminar and/or one credit of an approved 500 level EE seminar towards her/his 25 credits of EE 400 level course work. Approved seminars are:

#### **Approved 400-Level Seminars**

EE400L Intellectual Property, Chizeck
EE400RS Undergraduate Research Seminar, Riskin

#### **Approved 500-Level Seminars**

A variety of seminars are labelled EE500 (with a suffix), typically representing the efforts of a particular lab or research area. In addition we offer

EE592 Graduate Research Seminar

Please check with your academic counselors for suitability of other seminars [CHANGED].

#### **Graduate Courses Applied to EE Electives**

Under special circumstances you may petition, as an undergraduate, to apply up to 4 credits earned in graduate courses (other than graduate seminars and courses labeled EE 500) toward your EE Electives requirement. Before such a request can be approved, you must demonstrate that you have the required background for the graduate courses. Note that additional special requirements may apply if you wish to claim any engineering design credits for these graduate courses. Consult the EE Advising Office for additional information.

#### Additional College of Engineering Electives

You may count up to ten credits from technical courses from other Departments in the College of Engineering. The sum of the credits from the EE Core, EE Path, EE Electives, and College of Engineering Electives, must equal or exceed 68.

### Written and Oral Communication (12 credits)

This requirement includes two components described below: English Composition and Additional Writing Requirements

#### **English Composition**

At least 5 credits of English Compostion must be taken from the UW's approved list of composition courses. These courses include:

- C LIT 240 (5) -- Writing in Comparative Literature
- ENGL 104, and 105 -- Introductory Composition (both courses must be completed to receive credit, but you may only apply 5 credits to the BSEE degree)
- ENGL III -- Composition; Literature
- ENGL |2| -- Composition: Social Issues
- ENGL |3| -- Composition: Expositon
- ENGL 182 -- The Research Paper
- ENGL 197 -- Interdisciplinary Writing/Humanities (VLPA)
- ENGL 198 -- Interdisciplinary Writing/Social Sciences (I&S)
- ENGL 199 -- Interdisciplinary Writing/Natural Sciences(NW)
- ENGL 281 -- Intermediate Expository Writing

If you have transfer credit that you think is similar to the courses above, but which did not transfer exactly as any of the courses above, please check with the EE Advising Office.

#### **Additional Writing Requirements**

The following Technical Communication classes are required for graduation:

- TC 231 -- Introduction to Technical Writing (3 cr.)
- TC 333 -- Advanced Technical Writing and Oral Presentation (4 cr.)

#### Approved Non-EE Electives (10 credits)

The following courses satisfy the approved non-EE electives requirement;

- AMATH 300 and above except 351 and 352
- ASTRONOMY 301
- BIOLOGY 180, 200, 220, 400 and above
- BOTANY 400 and above
- BUSINESS 300 and above
- CHEMISTRY 152, 162, 223, 224, 237, 238, 239, 241, 242, 300 and above
- ECONOMICS 300 and above
- ENGINEERING (ENGR) 360
- OTHER ENGINEERING DEPTS: (please note that course cross-listed with EE courses, such as CSE/EE 461, can not be applied to the non-EE electives requirement.)
  - A&A 210, 280, 300 and above
  - CHEM E 260, 300 and above
  - CEE 220, 300 and above
  - CSE 300 level and above except CSE 370.
  - IND E 250, 300 and above except IND E 315
  - ME 230, 300 and above
  - MSE 300 and above
- EARTH AND SPACE SCIENCES 495 (previously GPHYS 425)
- MATH 300 and above, except except 444 and those already required/allowed for degree (307, 308, 324, 390)
- OCEAN 200, 300 and above
- PBIO 300 and above
- PHYSICS 224, 225, 227, 228, 300 and above except 405, 406, 407, 408, 409, 410, 411, 412 and 413

You may petition to substitute Natural Science classes not listed (such as Atmospheric Sciences, Astronomy, Earth and Space Sciences, etc.), at the level of 300 and above. Courses not listed above must be approved for substitution before they will be allowed to count toward this requirement.

### Visual, Literary and Performing Arts and Individuals and Societies (25 credits)

A total of 25 credits is required, with a minimum of 10 credits in each separate area. VLPA/I&S courses are designated in the quarterly time schedule and the UW course catalog. In addition, a list of current VLPA/I&S classes can be found on-line.

#### Free Electives (9 credits)

These credits can be fulfilled by any courses for which the University of Washington gives credit, except courses which duplicate or parallel courses for which you have already received credit. Up to 4 credits given for Co-op experience may apply to this requirement. This is the only degree requirement to which you may apply Co-op credits. Please note that students who choose to take STAT/MATH 390 for the Statistics requirement need only earn 8 Free Elective credits.

#### S/NS and CR/NC Grading

You may not apply any courses graded Satisfactory/Non-Satisfactory (S/NS) to any distribution or major requirement, but you may use them as Free Electives. You may apply courses graded Credit/Non-Credit (CR/NC) where appropriate.

#### Registration

You should plan your quarterly schedule of classes well in advance of your assigned registration day. You should also meet an adviser

to discuss any questions regarding your schedule or to confirm that your schedule of courses covers your requirements. Staff in the EE Advising Office can also answer questions regarding course availability, scheduling, etc. Be sure to register for courses on your assigned registration day as many EE courses tend to fill up quickly. If you need to take a course that has closed, check the on-line time schedule several times a day to see if someone has dropped the course. Waiting lists are only started on the request of an instructor and are kept in the EE Advising Office. If you still haven't gained a space by the first day of classes, plan to attend the class for the first week to see if a space opens up or if the instructor will let you overload.

#### Graduation

In order to graduate with the BSEE degree, you must fulfill the program of study and the requirements described in this handbook. You should apply for graduation up to two quarters in advance of your anticipated graduation date. Doing so will give you Graduating Senior Priority (GSP) status for your last two quarters of registration. The absolute deadline to apply for graduation is no later than the end of the third week of the quarter in which you plan to graduate.

### **Applicability of Requirements**

The requirements in this handbook apply to all students admitted to the department in or after Autumn quarter 2000 and until such time as a new handbook or amendment is issued. Students admitted while this handbook is in effect will not be subject to additional degree requirements except those necessary to comply with accreditation requirements.

If you are a returning student who was originally admitted to the department in a previous quarter, different requirements may apply to you. Please consult the EE Advising Office for guidance.

Changes in policy and administrative procedures can be applied to students admitted before the effective date of this handbook, as long as such changes do not modify the total number of credits required for the BSEE degree and the distribution of those credits.

Updates or corrections to this page should be sent to helene@ee.washington.edu.

----- END OF PROPOSAL -----Curriculum Planning Worksheet: The original curriculum planning worksheet would need to be modified. Some of the sections are suggested below. EE215 \_\_\_\_ EE233 \_\_\_\_ EE235 \_\_\_\_ \_\_\_\_ credits (must equal 13 credits) subtotal A: Path: \_\_\_\_\_ EE\_\_\_\_ EE\_\_\_ \_\_\_ EE\_\_\_\_ EE\_\_ \_\_ EE\_\_ \_\_ EE\_\_ \_\_ EE\_\_ \_\_ subtotal B: credits (must equal or exceed 24 credits) EE Electives: EE\_\_\_\_

EE\_\_ \_\_

EE\_\_ \_\_\_ EE\_\_ \_\_\_

EE	
subtotal C:	credits
total A + B + C	EE credits (must equal or exceed 58)
ENGR Electives:	
subtotal D:	Other College of Eng. credits. Maximum countable = 10
total A + B + C + E	EE/Technical credits (must equal or exceed 68)
Notes:	The state of the s

[1] These four sections replace "EE/Engineering Fundamentals, EE Core Courses, EE Electives" in the current curriculum

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# Comparison of current and proposed curricula

### Core courses required of all EE students:

- Current: 9 courses, 43 credits: EE215, EE233, EE331, EE332; EE235, EE341; EE351; EE361; EE271
- Proposed: 3 courses, 13 credits: EE215, EE233, EE235, a total of 13 credits

## Minimum EE credits required of all EE students:

- Current: 68 credits
- Proposed: 58 credits
  - up to 10 credits from other ENG departments would be counted. rationale: permits greater engineering breadth, multidisciplinarity, helps double majors.
  - at least 68 credits would come from the College of Engineering.

### Role of Capstone:

- Current: at least three courses from one area of specialization, 12 credits minimum, one of which must be a capstone design course.
- Proposed: at least 24 credits of courses culminating in a capstone design course.

## Depth Requirement:

- Current: capstone plus prerequisites
- Proposed: capstone plus prerequisites

## **Breadth Requirement:**

- Current: explicit,
  - through 9 core courses
  - through 7 credits outside of specialization
- Proposed:

implicit, by exhausting courses in a Path, leading to other EE and ENGR courses completing the 68 credits. implicit, by permitting the flexibility to complete more than one Path; an "intermediate breadth" e.g. "wireless communications path"

## Individual course revisions required:

- Current: none
- Proposed: none

Likely that EE215, EE233, and EE235 will come under scrutiny for future revision.

A three course core will be easier to collectively manage than a nine course core. The current core courses are almost open-loop with respect to coordination of the core.

## Implementation Issues:

- Current: none
- Proposed: negligible

No major course modifications needed immediately,

- · Current courses in core, but not in new core, would become electives, and continue to be taught.
- No change in teaching assignments for 06-07, hence trivial completion of curriculum for existing students.
- Gradual adjustment of teaching assignments for 07-08 and beyond, as students adjust their demand.
- This Can Be Implemented in Autumn 2006!

## Freshman Course Requirement:

- Current: none
- · Proposed: none
  - The EE faculty voted in Spring 2005 to **not** require a freshman course in the new curriculum, because it would consume "higher level" EE credits. Perhaps this will be revisited.
  - There are two fledgling efforts to teach a freshman course; one is scheduled to be taught Winter 2007 (Ostendorf).

    A freshman course has been taught a few times, "Secret Life of Electron" with mixed success.

2 of 2 5/1/2006 1:04 PM

A committee of 3-4 faculty, composed of the course coordinators for each, would oversee the core. This committee would be responsible for selecting texts, generating course changes for consistency among the core courses (e.g. Laplace Transform), addressing dependencies among the core courses (e.g. should the core be taken in the order EE215, EE233, EE235, or could EE235 be taken asynchronously with both.

This committee would also be responsible for liaison with other Departments which require our core courses (e.g. CSE, ME).

## Oversight of Paths

Creation, modification, and deletion of Major Paths would be performed by proponents of the change, and presented to the EE Curriculum Committee for approval.

## Oversight of Student-designed Paths

Student generated proposals for custom, "one-off" paths would be overseen by the Faculty Undergraduate Coordinator.

## College Oversight at CEP.

This proposal has been created in such a way that the EE faculty can freely experiment with the various curriculum paths, subject to the oversight of the Curriculum Committee, without needing to involve the College Council on Educational Policy (CEP).

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# **Oversight**

The proposed curriculum contains a description of a curriculum. It does not contain a description of the oversight and management of that curriculum. The following is suggested; it has been discussed briefly by the Curriculum Committee.

## **Oversight of the Three Core Courses**

A committee of 3-4 faculty, composed of the course coordinators for each, would oversee the core. This committee would be responsible for selecting texts, generating course changes for consistency among the core courses (e.g. Laplace Transform), addressing dependencies among the core courses (e.g. should the core be taken in the order EE215, EE233, EE235, or could EE235 be taken asynchronously with both.

This committee would also be responsible for liaison with other Departments which require our core courses (e.g. CSE, ME).

## Oversight of Paths

Creation, modification, and deletion of Major Paths would be performed by proponents of the change, and presented to the EE Curriculum Committee for approval.

## **Oversight of Student-designed Paths**

Student generated proposals for custom, "one-off" paths would be overseen by the Faculty Undergraduate Coordinator.

## College Oversight at CEP.

This proposal has been created in such a way that the EE faculty can freely experiment with the various curriculum paths, subject to the oversight of the Curriculum Committee, without needing to involve the College Council on Educational Policy (CEP).

1 of 1

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Date: Thu, 25 May 2006 16:56:02 -0700
From: Stephen Graham <graham@ee.washington.edu>
To: Stephen W. Keith <swkeith@u.washington.edu>
Cc: 'John Sahr' <jdsahr@u.washington.edu>,
    Captain Stephen Keith <swkeith@u.washington.edu>,
    Curriculum Office <uwcr@u.washington.edu>,
    'Debbie Wiegand <wiegand@u.washington.edu>, Don Janssen <dnjan@msn.com>,
    George L. Dillon <dillon@u.washington.edu>,
    Jennifer Payne <jap2@u.washington.edu>,
    Mariko Navin <mnavin@u.washington.edu>,
    Matthew Winslow <mwinslow@u.washington.edu>,
    Michelle Trudeau <michtru@u.washington.edu>,
    Phillip Ballinger <philipba@u.washington.edu>,
    Robert Corbett <rcorbett@u.washington.edu>,
    Scott Winter <swinter@u.washington.edu>,
    Todd Mildon <tmildon@u.washington.edu>,
    Whitney Thompson <iwt@u.washington.edu>
Subject: RE: Lead Time on Presenting Change of Program Proposals to FCAS
That's an excellent suggestion. We'd like to adopt that.
At 02:24 PM 5/25/2006, Stephen W. Keith wrote:
> Stephen Graham,
> Thanks for all the information on your change. I've looked at the proposal
> and it seems very straightforward. It makes a lot of sense to me, and adds
> tremendous flexibility for students and faculty. I am forwarding your info
> to the rest of SCAP as well, and unless they register big problems with it,
> I don't think we'll have any trouble reviewing it for you.
> The only question I have is whether you want to mention the pathway in the
> catalog copy under EE Electives. Maybe something like "...(45 credits,
> including at least 24 in a specified major pathway): See advisor..." What
> do you think?
> thanks, Steve Keith
```