



UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

June 20, 2007

Dean Matthew O'Donnell
College of Engineering
Box 352180

Dear Matthew:

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 the Bachelor of Science in Computer Engineering degree and the revised requirements for the Hardware specialization and the Software specialization. A copy of the changes is attached.

I am writing to inform you that the College of Engineering is authorized to specify these requirements beginning autumn quarter 2007.

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

Enclosure

cc: Crystal Eney (with enclosure)
Paul Beame (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah H. Wiegand (with enclosure)
Todd Mildon, J.D. (with enclosure CSE-20070520)

MAY 23 2007



UNIVERSITY OF WASHINGTON
**CREATING AND CHANGING UNDERGRADUATE
 ACADEMIC PROGRAMS**

OFFICE USE ONLY
Control # CSE-20070520

After college/school review, send a signed original and 8 copies to FCAS, Box 355040

For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

College College of Engineering	Department or Unit Computer Science & Engineering	Date 5/20/07
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New Programs

Leading to a Bachelor of _____ in _____ degree.

Leading to a Bachelor of _____ degree with a major in _____

Leading to a _____ Option within the existing major in _____

Leading to a minor in _____

Changes to Existing Programs

New Admission Requirements for the Major in _____ within the Bachelor of _____

Revised Admission Requirements for the Major in _____ within the Bachelor of _____

Revised Program Requirements for the Major in CMP E within the Bachelor of Science

Revised Requirements for the Option in Hardware/Software within the major in CMP E

Revised Requirements for the Minor in _____

Other Changes

Change name of program from _____ to _____

New or Revised Continuation Policy for _____

Eliminate program in _____

Proposed Effective Date:

Quarter: Autumn Winter Spring Summer **Year:** 2007

Contact Person Paul Beame	Contact's Phone 206 - 543 - 5114	Contact's Email beame@cs.washington.edu
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EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

For new programs, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (Use additional pages if necessary).

see attached

CATALOG COPY

Catalogue 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.

see attached

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)

see attached

SIGNATURES (required)

Chair/Program Director	<i>Henry M. Leay</i>	Date	<i>5/21/07</i>
Dean	<i>Steve D. Krohn</i>	Date	<i>5-23-07</i>
College Committee	<i>Bobby Wolf</i>	Date	<i>5/22/07</i>
Faculty Council on Academic Standards	<i>George W. Miller</i>	Date	<i>6/15/07</i>

UoW 1503 (12/05) REVERSE

RESET FORM

Justification of Change to Computer Engineering Program

This proposed change strengthens the engineering component for the Computer Engineering degree so that the degree more clearly meets the ABET requirements for engineering content. In the Hardware track this includes an additional course, CSE 471, a course in computer architecture that is fundamental to this area. In the Software track the optional courses will now be specified in terms of total credits (18) rather than the old version which was a mix of number of courses and number of credits (which totaled between 13 and 15 credits). A new proposed course, CSE ~~464~~ Computer Security, is being added as one of the core courses among these options. This will increase the number of optional courses required for the software track from 4-5 courses, depending on credits, to 5-6 courses with the number of core courses among these options being raised from 2 to 3. Most of our majors are already taking many more courses than the minimum requirements.

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Old Computer Engineering Graduation Requirements

180 credits as follows:

General Education Requirements (81-84 credits)

1. *Written and Oral Communication (12 credits)*: 5-credit course in English composition from the University-approved list; T C 231; T C 333, or department-approved alternative.
2. *Visual, Literary, and Performing Arts (VLPA) and Individuals and Societies (I&S) (30 credits)*: A minimum of 10 credits in each required area.
3. *Natural World (39-42 credits)*:
 - a. *Mathematics (19-22 credits)*: MATH 124, MATH 125, MATH 126 (or MATH 134, MATH 135, MATH 136); MATH 308 or MATH 318 (waived if MATH 136 taken); MATH/STAT 390 or STAT 391.
 - b. *Science (20 credits)*: PHYS 121, PHYS 122, and 10 additional credits from the list of approved natural science courses in the CS&E Handbook. Courses that meet the department's science requirement include any course in biology, chemistry, physics, earth and space sciences, astronomy, or atmospheric sciences that requires PHYS 121 or CHEM 142/CHEM 145 as a prerequisite.

Major Requirements (69-71 credits)

1. *Required Courses (47 credits)*: CSE 142, CSE 143, CSE 303, CSE 321, CSE 322, CSE 326, CSE 341, CSE 370, CSE 378, CSE 451, CSE 461; E E 215
2. Either a hardware or a software specialization
3. a. *Hardware Specialization (24 credits)*: E E 233; CSE 466, CSE 467; CSE 477 (hardware capstone); and 6 credits from courses on the approved senior elective course list in the CS&E Handbook.
4. b. *Software Specialization (22-24 credits)*: CSE 403; two from CSE 401, CSE 421, CSE 444, CSE 466, CSE 471; software capstone; and 7 credits from courses on the approved senior elective course list in the CS&E Handbook.
5. Transfer students must earn a minimum of 24 graded credits toward the major at the UW.

Proposed Computer Engineering

Graduation Requirements

180 credits as follows:

General Education Requirements (81-84 credits)

1. *Written and Oral Communication (12 credits)*: 5-credit course in English composition from the University-approved list; T C 231; T C 333, or department-approved alternative.
2. *Visual, Literary, and Performing Arts (VLPA) and Individuals and Societies (I&S) (30 credits)*: A minimum of 10 credits in each required area.
3. *Natural World (39-42 credits)*:
 - a. *Mathematics (19-22 credits)*: MATH 124, MATH 125, MATH 126 (or MATH 134, MATH 135, MATH 136); MATH 308 or MATH 318 (waived if MATH 136 taken); MATH/STAT 390 or STAT 391 (or **STAT 394, STAT 395**).
 - b. *Science (20 credits)*: PHYS 121, PHYS 122, and 10 additional credits from the list of approved natural science courses in the CS&E Handbook. Courses that meet the department's science requirement include any course in biology, chemistry, physics, earth and space sciences, astronomy, or atmospheric sciences that requires PHYS 121 or CHEM 142/CHEM 145 as a prerequisite.

Major Requirements (74-75 credits)

1. *Required Courses (47 credits)*: CSE 142, CSE 143, CSE 303, CSE 321, CSE 322, CSE 326, CSE 341, CSE 370, CSE 378, CSE 451, CSE 461; E E 215
2. Either a hardware or a software specialization
3. a. *Hardware Specialization (28 credits)*: E E 233; CSE 466, CSE 467, **CSE 471**; **5-credit course chosen from the list of CSE hardware capstone courses in the CS&E Handbook**; and 6 credits from courses on the approved **Computer Engineering** senior elective course list in the CS&E Handbook.
4. b. *Software Specialization (27 credits)*: CSE 403; **18** credits from the approved **Computer Engineering** senior elective course list in the CS&E Handbook, including at least **three** courses from CSE 401, CSE 421, CSE 444, **CSE 484**, CSE 466, CSE 471; **5-credit course chosen from the list of CSE software capstone courses in the CS&E Handbook**.
5. Transfer students must earn a minimum of 24 graded credits toward the major at the UW.

A minimum grade of 2.0 is required in any course applied to Major, Natural World, or Written and Oral Communication requirements.

Free Electives (21-25 credits)