UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

March 13, 2012

Dean Matthew O'Donnell
College of Engineering
Box 352180

Dear Matt:

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

I am writing to inform you that the Department of Computer Science and Engineering is authorized to specify these requirements beginning autumn quarter 2011.

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,

Michael K. Young
President

Enclosure

cc: Dr. Gaetano Borriello (with enclosure)
Mr. Pim Lustig (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah H. Wiegand (with enclosure)
Ms. Virjean Edwards (with enclosure CSE-20110530)

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UNIVERSITY OF WASHINGTON

CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

OFFICE USE ONLY
Control #
CSE-20110530

After college/school/campus review, send a signed original and 8 copies to the Curriculum Office/FCAS, Box 355850.
For information about when and how to use this form: http://depts.washington.edu/uwcr/1503instructions.pdf

College/Campus Engineering	**Department/Unit** CSE	**Date** 05/30/2011

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 Computer Engineering within the Bachelor of Science.
- ☐ Revised Requirements for the Option in _____within the major in _____.
- ☐ 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:** 20 11

Contact Person: GAETANO BORRIELLO	Phone: 5-9432	Email: gaetano@cs.washington.edu	Box: 352350

EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

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

This revision is part of our efforts to continually streamline and modernize our undergraduate degree programs. We are responding to a computing field that continues to grow and advance at a fast rate.

The proposed changes to the Computer Enginering major (CompE) eliminate the separate HW and SW tracks, simplify accounting of credits in the different categories, make the CompE and CS degrees more comparable in requirements and electives, better support dual majors in the College of Engineering, and meet ABET requirements while making assessments easier to implement. By reducing the number of courses all CompE majors must take, students have the opportunity (but not the requirement) to take more advanced courses in a particular subfield sooner. We have not reduced the total number of CSE courses/credits that each student must take. That is, the degree is more flexible, but not smaller.

NOTE: Unrelated to the above proposed changes, a correction to the UW catalog copy section on Upper-division Admission requirements is also included. This requirement for the CompE major was previously approved in 2003 and at some point was inadvertently replaced by the CS admission requirements.

OTHER DEPARTMENTS AFFECTED

List all departments/units/ or co-accredited programs affected by your new program or changes to your existing program and acquire the signature of the chair/director of each department/unit listed. Attach additional page(s) if necessary. *See online instructions.

Department/Unit:	Chair/Program Director:	Date:
Department/Unit:	**Chair/Program Director**	**Date:**

CATALOG COPY

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.

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). **Please note:** all copy will be edited to reflect uniform style in the General Catalog.

see attached .

APPROVALS

Chair/Program Director: Henry M. Levy	Date: 5/30/2011
College/School/Campus Curriculum Committee: Robert E. Breidenthal	Date: 5/31/11
Dean/Vice Chancellor: Ted-Kwon.	Date: 6/2/11
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: John Schaubberger	Date: MAR. 9, 2012

POST TRI-CAMPUS APPROVAL (when needed)

Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

CATALOG COPY
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.

Bachelor of Science in Computer Engineering

Department Admission Requirements

Applicants are considered in three groups: Direct Admission, Accelerated Admission, and Upper-division Admission. Admission is competitive. Completion of minimum requirements does not guarantee admission.

1. *Direct Admission:* Computer Science and Engineering enrolls up to 20 percent of its incoming class directly out of high school, prior to completion of university-level prerequisites. Freshman applicants to the University listing Computer Science or Computer Engineering as their intended major are automatically considered. Competitive applicants have taken calculus and at least one year of laboratory science (preferably physics) upon entering the University. Admission is for autumn quarter only.
2. *Accelerated Admission:* Intended as a fast track into the Computer Science and Engineering department for matriculated students who have excelled in the CSE introductory courses.
    a. *Course Requirements:* CSE 142 or equivalent, CSE 143. At least 5 additional credits toward the Computer Science Upper-division Admission course requirements.
    b. *Other Requirements:* Completion of at least 15 credits at the UW. 3.00 cumulative GPA. Competitive applicants for Accelerated Admission typically have received a high grade in CSE 143 at the UW on their first attempt.
    c. Admission is considered for any quarter.
3. *Upper-division Admission*
    a. Minimum grade of 2.0 in each of MATH 124, MATH 125, MATH 126 (or MATH 134, MATH 135, MATH 136); ~~at least five credits of Natural World, including one of the following:~~ PHYS 121, ~~CHEM 142/CHEM 144/CHEM 145, or BIOL 180 (or any approved science course that requires one of these courses as a prerequisite;~~ CSE 142, CSE 143; and at least five credits of English composition. ~~In addition to any AP credit, at least one calculus or post-calculus mathematics course and one approved Natural World course must be completed prior to applying to the department.~~

Graduation Requirements

Major Requirements (72 credits)

1. *Required Courses (~~41 credits~~):* CSE 142, CSE 143, CSE 311, CSE 312, CSE 332, CSE 351, CSE 352, ~~CSE 451, CSE 461~~; E E 215 or E E 205.
2. ~~Either a hardware or a software specialization~~
   a. ~~*Hardware Specialization (28-29 credits):* CSE 333, CSE 466, CSE 467, CSE 471, 5-credit course chosen from the list of CSE hardware capstone courses in the CS&E Handbook; and the following:~~
      i. ~~If E E 205 is not taken, then E E 233 and at least 3 credits chosen from courses in the CSE electives list in the CS&E Handbook.~~
      ii. ~~If E E 205 is taken, then at least 7 credits chosen from courses on the CSE electives list in the CS&E Handbook, including at least 3 credits from courses in the CSE or E E departments.~~
   b. ~~*Software Specialization (27-28 credits):* CSE 331, three courses chosen from CSE 401, CSE 403, CSE 421, CSE 444, CSE 466, CSE 471, and CSE 484, at least one of which must be either CSE 403 or CSE 484; 5 credit course chosen from the list of CSE software capstone courses in the CS&E Handbook; at least 7 credits chosen from courses on the CSE electives list in the CS&E Handbook, including at least 3 credits from courses in the CSE or E E departments.~~
3. ~~A total of at least 31 credits from any regularly numbered courses with a College of Engineering prefix, including credits toward the hardware or software specialization, but not including the Required Courses (above) or courses applied to the Written and Oral Communication requirements.~~
4. Minimum 2.0 grade for any course applied to the major, Natural World, or Written and Oral Communication requirements. Transfer students must earn a minimum of 24 graded credits toward the major at the UW.

Free Electives (~~21~~ 25 credits)

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2. *Accelerated Admission:* Intended as a fast track into the Computer Science and Engineering department for matriculated students who have excelled in the CSE introductory courses.
    a. *Course Requirements:* CSE 142 or equivalent, CSE 143. At least 5 additional credits toward the Computer Science Upper-division Admission course requirements.
    b. *Other Requirements:* Completion of at least 15 credits at the UW. 3.00 cumulative GPA. Competitive applicants for Accelerated Admission typically have received a high grade in CSE 143 at the UW on their first attempt.
    c. Admission is considered for any quarter.
3. *Upper-division Admission*
    a. Minimum grade of 2.0 in each of MATH 124, MATH 125, MATH 126 (or MATH 134, MATH 135, MATH 136); PHYS 121, PHYS 122; CSE 142, CSE 143; and at least five credits of English composition with a minimum grade of 2.0.

Graduation Requirements

Major Requirements (72 credits)

1. *Required Courses (33 credits):* CSE 142, CSE 143, CSE 311, CSE 312, CSE 332, CSE 351, CSE 352; E E 215 or E E 205.
2. CSE Electives (39 credits):
    a. 4 courses chosen from: CSE 401, CSE 403, CSE 444, CSE 451, CSE 461, CSE 466, CSE 467, CSE 471, CSE 484; at least one of which must be CSE 403, CSE 466, or CSE 484.
    b. 2 additional courses chosen from the CSE Core Courses list in the CSE Handbook.
    c. A Design Capstone course from the approved list in the CSE Handbook.
    d. Additional courses from the CSE Electives list in the CSE Handbook, including at least 7 credits from College of Engineering courses, to bring the total CSE Electives to 39.

3. Minimum 2.0 grade for any course applied to the major, Natural World, or Written and Oral Communications requirements. Transfer students must earn a minimum of 24 graded credits toward the major at the UW.

4. Free Electives (20-25 credits)