UNIVERSITY *of* WASHINGTON

Michael K. Young
President

October 16, 2013

Dean Michael B. Bragg
College of Engineering
Box 352180

Dear Michael:

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

I am writing to inform you that the Department of Human Centered Design and Engineering is authorized to specify these requirements beginning autumn quarter 2013.

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: Ms. Stephanie White (with enclosure)
Mr. Robert Corbett (with enclosure)
Ms. Virjean Edwards (with enclosure)

301 Gerberding Hall • Box 351230 • Seattle, Washington 98195-1230 • 206.543.5010 • Fax 206.616.1784 • president@uw.edu

UNIVERSITY OF WASHINGTON

CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

JUN 18 2013

OFFICE USE ONLY

Control #

HCDE-20130423

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** HCDE	**Date** 4/23/2013

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 Human Centered Design & Engineering within the Bachelor of Science.
- ☒ Revised Program Requirements for the Major in Human Centered Design & 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 13**

Contact Person: Stephanie White	Phone: 1-6230	Email: whitesj@uw.edu	Box: 352315

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*).

HCDE is proposing to change CSE 142 from a graduation requirement to an admission requirement, with CSE 140 as an alternative option to CSE 142. The purpose of adding CSE 140 or 142 as an admission requirement is to make sure students are entering the department with common, foundational, technical skills which benefits the HCDE core curriculum and student success.

Additionally, we are adding direct freshman admission language and combining our early and upper admission language. HCDE has been accepting direct freshman applications for the past two years and want that reflected in the UW catalog copy. In addition, the requirements for early and upper admission were nearly identical. To be clearer and make the admission process easier for students, we decided to combine both processes into one process called "Regular Admission," which is the same language used by other programs with only one admission cycle for current UW students (i.e. Informatics).

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:

HCDE 4-23-13

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.

Please see attachment A: Department Admission Requirements

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.

Please see attachment B for edited admission requirements and attachment C for fully edited catalog copy.

APPROVALS

Chair/Program Director:	Date: 5/28/2013
College/School/Campus Curriculum Committee:	Date: 6.4.13
Dean/Vice Chancellor:	Date: 6/5/13
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date: 10/11/13

POST TRI-CAMPUS APPROVAL (when needed)

HCDE 4-23-13

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

Undergraduate Program

Adviser
~~423C~~ 428 Sieg, Box 352315
~~(206) 543-1798~~ (206)543-2567
~~tcadvise@uw.edu~~ hcde@uw.edu

The Department of Human Centered Design and Engineering (HCDE) offers the following programs of study:

- Bachelor of Science in Human Centered Design and Engineering degree
- A minor in technical Japanese

Bachelor of Science in Human Centered Design and Engineering

Suggested First-Year College Courses: at least 5 credits of composition and approved mathematics or statistics (see list on HCDE website), approved science (see list on HCDE website)

Department Admission Requirements

~~Applicants are considered in two groups: Early admission and upper-division admission.~~ Admission is competitive. Completion of minimum requirements does not guarantee admission. All applicants have the right to petition and appeal the department's admission decision.

Direct Freshman Admission

The department enrolls up to 30% of its incoming class directly from high school, prior to completion of University-level prerequisites. Students accepted to the UW who indicate Human Centered Design and Engineering as their preferred major on the freshman application are automatically considered. Competitive applicants have taken or are taking calculus and at least two years of laboratory science (physics, chemistry preferred) in high school. Admission is for autumn quarter only.

~~*Early Admission*~~

~~1. *Course requirements:* 35 credits to include 10 credits of approved mathematics or statistics; 15 credits of approved natural science; and 10 credits of approved written and oral communication. All courses must be completed before the July 1 application deadline.~~

~~2. Applicants must be currently enrolled at the UW and must have completed a minimum of 15 credits taken in residence at the UW. Application deadline is July 1 for autumn quarter only.~~

~~3. *Grade requirements:* Minimum 3.00 GPA in written and oral communications~~

~~courses and minimum 2.00 cumulative GPA~~

~~*Upper Division*~~ *Regular Admission*

1. *Course requirements:* 10 credits of approved mathematics or statistics; 15 credits of approved natural science; ~~and~~ 10 credits of approved written and oral communication; and CSE 140 or CSE 142. All courses must be completed prior to the July 1 or February 1 application deadlines.
2. ~~60 credits completed by~~ Application deadline: July 1 for autumn quarter and February 1 for spring quarter.
3. Students applying in the senior year must spend a minimum of four quarters in the program.
4. *Grade requirements:* Minimum 3.00 GPA in written and oral communications courses and minimum 2.00 cumulative GPA.

Graduation Requirements

180 credits as follows:

General Education Requirements (93 credits)

1. *Written and Oral Communication (13 credits):* 5 credits of English composition from the University list; HCDE 231; 5 credits of oral/written communication from HCDE list (see adviser)
2. *Visual, Literary, & Performing Arts (VLPA), and Individuals & Societies (I&S) (30 credits):* Minimum of 10 credits is required in each area
3. *Mathematics and Natural Science (50 credits):*

a. *Mathematics (minimum 15 credits; see list of qualifying courses on HCDE website)*

b. *Science (minimum 15 credits; see list of qualifying courses on HCDE website)*

Major Requirements (83-87 credits)

1. *HCDE Core (52 credits):* HCDE 300, HCDE 303, HCDE 310, HCDE 313, HCDE 321, HCDE 411, HCDE 417, HCDE 418, HCDE 437, HCDE 493, HCDE 495 (3), HCDE 496 (2)
2. *Technical/Analytical (12 credits):* Must include CSE 140 or CSE 142
3. *Area of Concentration (19-23 credits):* Students may choose a transcriptable option in Human-Computer Interaction (HCI) or select a coherent and relevant list of approved electives to create a non-transcripted, individualized area of specialization, aligned with their personal interests or career goals. See adviser for

transcriptable options and individualized area of specialization.

Free Electives (1-5 credits)

Minor

Minor Requirements: Technical Japanese: Minimum of 25 credits to include HCDE 461 (5), HCDE 462 (5), HCDE 463 (5), plus 10 credits from the approved list of elective courses. For more information, contact the Technical Japanese Office, 13 Engineering Library.

Student Outcomes and Opportunities

- *Learning Objectives and Expected Outcomes:* The department has identified several areas of competency for students. By achieving mastery in all these areas, upon graduation HCDE students are well prepared to advance to careers in ~~technical communication~~ human centered design and engineering (HCDE), apply to top graduate programs, and conduct research in the field. Graduates are able to:

  - Understand the HCDE field
  - ~~Write and edit at a professional level~~
  - ~~Analyze communication situations and problems in scientific and technical settings~~
  - ~~Identify and work with the major genres of technical communication~~
  - ~~Use appropriate tools and technologies to develop communication solutions~~
  - ~~Understand and use principles for effective display of information~~
  - ~~Understand and practice effective content development~~
  - ~~Manage HCDE projects effectively~~
  - ~~Work effectively on teams~~
  - ~~Be sensitive to relevant larger contexts and environments~~
  - Conduct user research, using quantitative and qualitative methods, to:

    Identify needs and potential opportunities for new systems

    Identify strengths and weaknesses of existing systems
  - Ideate based on understanding of users and their context.
  - Design new systems or refinements to existing systems based on an understanding of people's wants and needs.
  - Evaluate potential ideas, concepts or designs according to a variety of perspectives (e.g., including economic, usability, experience, and value-sensitive evaluations), including evaluation of scenarios and prototypes of varying levels of fidelity.
  - Build prototypes of varying levels of fidelity and for various purposes, such as

look and feel prototypes and functional prototypes.
- Understand the relationships between social and technical elements of systems, and how interventions that change one component may affect the other components.
- Communicate user needs and design proposals in written, spoken, and multimedia forms, to clients and other stakeholders including
- Potential investors
- Engineers who could conduct detailed design and development of proposed solutions
- Stakeholders who would be affected by the implementation or adoption of the proposed solutions
- Identify and learn new skills, perspectives, and tools that will help them and others accomplish their work.
- Accomplish above activities while maintaining an ethical perspective and awareness of their own skills and abilities.

- The Department of Human Centered Design and Engineering prepares students to assume positions of intellectual leadership in industry, government, and non-profit organizations. Students also specialize in science writing or website design. The Technical Japanese program provides a unique opportunity to develop cross-cultural experience and expertise. Whatever their professional direction, HCDE students learn the newest communication technologies and practices, the most effective information-design strategies, and the research skills appropriate to their interests. They also learn the enduring theory and principles that enable them to understand the constant changes they will encounter throughout their careers. Finally, their coursework takes place in the context of social and political issues and human needs.

- *Instructional and Research Facilities:* Department facilities include the HCDE ~~Computer~~ Design Lab, Laboratory for Usability Testing and Evaluation (LUTE), and the Technical Japanese Computer Lab, ~~Laboratory for Usability Testing and Evaluation (LUTE), and the Engineering/iSchool Writing Center (EiWC)~~.
- *Honors Options Available:* With College Honors (Completion of Honors Core Curriculum and Departmental Honors). With Honors (Completion of Departmental Honors requirements in the major). See adviser for requirements.
- *Research, Internships, and Service Learning:* All HCDE undergraduates are required to complete at least one 3-credit internship. The supervised internship ~~in a publications organization~~ must be approved by the faculty adviser. As an internship substitution, students may elect to take part in a six-month co-op, sponsored by the Engineering Co-op program. Additionally, undergraduates are invited to work in research groups with HCDE graduate students and faculty.
- *Department Scholarships:* Annually, HCDE selects one recipient of a College of Engineering Scholarship. The criteria for this scholarship are the applicant's prior academic history and likelihood for success in the ~~technical communication~~

human centered design and engineering field. Additionally, the Society for Technical Communication (STC) offers annual scholarships open to all students enrolled in a HCDE-related program.

- *Student Organizations/Associations:* Students in the HCDE degree program often participate in the ~~Student Chapter of the Society for Technical Communication (STC)~~ HCDE Student Association, the Minority Science and Engineering Program (MSEP), and Women in Science and Engineering (WISE).

Of Special Note: The HCDE department is a small, academic community. Students generally call their professors by their first name and have the opportunity to work individually on projects and research supervised by HCDE faculty. Undergraduate students are encouraged to work in research groups and to attend conferences and professional meetings.

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Early Admission

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2. Applicants must be currently enrolled at the UW and must have completed a minimum of 15 credits taken in residence at the UW. Application deadline is July 1 for autumn quarter

only.

3. *Grade requirements:* Minimum 3.00 GPA in written and oral communications courses and minimum 2.00 cumulative GPA

Upper-Division Admission

1. *Course requirements:* 10 credits of approved mathematics or statistics; 15 credits of approved natural science; and 10 credits of approved written and oral communication. All courses must be completed prior to the July 1 or February 1 application deadlines.
2. 60 credits completed by application deadline: July 1 for autumn quarter and February 1 for spring quarter
3. Students applying in the senior year must spend a minimum of four quarters in the program.
4. *Grade requirements:* Minimum 3.00 GPA in written and oral communications courses and minimum 2.00 cumulative GPA

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