UNIVERSITY *of* WASHINGTON

Michael K. Young
President

March 10, 2014

Dean Elaine Scott
School of Science, Technology, Engineering and Mathematics
University of Washington, Bothell
Box 358538

Dear Elaine:

Based upon the recommendations of the Executive Council, the General Faculty Organization has recommended approval of a Bachelor of Science in Computer Engineering degree. A copy of the approval is attached.

I am writing to inform you that the School of Science, Technology, Engineering, and Mathematics is authorized to specify these requirements beginning autumn quarter 2014.

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. Mike Stiber (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

DEC 04 2013

OFFICE USE ONLY

Control # CSS-2013/017

After college/school/campus review, send a signed original and 1 copy 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 UW Bothell	**Department/Unit** Computing and Software Systems	**Date** 10-17-2013

New Programs

X Leading to a Bachelor of **Science** in **Computer Engineering** 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 ___ within the Bachelor of ___.

☐ Revised Requirements for the Option in ___within the major in ___.

☐ Revised Requirements for the Minor in ___.

Other Changes

☐ Change name of program from ___ to ___.
☐ Change delivery method or location of program.
☐ New or Revised Continuation Policy for ___.
☐ New Honors Requirements for ___.
☐ Eliminate program in ___.

Proposed Effective Date: **Quarter:** X Autumn ☐ Winter ☐ Spring ☐ Summer **Year: 20 14**__

Contact Person: Mike Stiber	Phone: 425-352-5280	Email: Stiber@u.washington.edu	Box: 358534

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*).

Proposal Attached

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:

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Department/Unit:	Chair/Program Director:	Date:
[illegible]		12/11/13

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.

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.

The Bachelor of Science in Computer Engineering, jointly offered by the Electrical Engineering and Computing and Software Systems faculty, educates professionals who can work at the intersection of computing hardware and software. It accomplishes this through an interdisciplinary curriculum that combines foundational knowledge in physical and mathematical sciences and cognitive practice in interpersonal and management skills with technical competencies in software development, hardware design, systems, and business. A capstone sequence will allow students to synthesize learning in a comprehensive hardware/software design experience.

APPROVALS

Chair/Program Director: [signatures] Chair Pl Scott	Date: 10/21/13
College/School/Campus Curriculum Committee: [signature]	Date: 11-5-13
Dean/Vice Chancellor: [signature]	Date:
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: [signature]	Date: 11-5-13

POST TRI-CAMPUS APPROVAL (when needed)

Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:
[signature]	1-31-14

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Department/Unit:	Chair/Program Director:	Date:
IAS/T&L		12/11/13

Bachelor of Science in Computer Engineering

University of Washington Bothell

School of Science, Technology, Engineering, and Mathematics

University of Washington Bothell

Table of Contents

I. Degree program description and rationale

"It's a joy to work with students, especially in these courses. They are eager to learn new skills and are excited to contribute to research."[1]

The University of Washington Bothell proposes to offer a Bachelor of Science degree in Computer Engineering (BSCE). The existence of the field and profession of computer engineering for over 25 years recognizes that modern computing systems include inextricable combinations of hardware and software. This requires workforce members who are knowledgeable in both domains, and understand how the domains interact, restrict or enable the interdependent capabilities. As we enter an era in which small computing systems — sensor motes, RFID chips, mobile computing platforms, embedded systems, etc. — become ubiquitous, demand for individuals with backgrounds in both hardware and software will continue to increase.

The goal of the UW Bothell Computer Engineering (CE) degree is to create broadly-educated professionals who can work at the intersection of computing hardware and software. We will accomplish this through an interdisciplinary curriculum that combines foundational knowledge in physical and mathematical sciences, cognitive practice in interpersonal and management skills with technical competencies in programming, hardware design, systems and business. A capstone sequence will allow students to synthesize learning in a comprehensive hardware/software design experience.

This degree leverages existing UWB degrees in Computing and Software Systems (CSS) and Electrical Engineering (EE), and will draw much of its core and elective courses from existing CSS and EE courses while adding specialized CE courses where appropriate. As such, it will incorporate the strengths of both programs, including strong ties with area industry and institutional experience with the ABET accreditation process. Accordingly, CSS and EE will seek ABET accreditation for the CE degree program when it is eligible.

II. Relationship to institutional and unit priorities

We have an overriding commitment to providing our students with the best possible university education through challenging programs of study and innovative methods of instruction. We value engaging our students

[1] Hazeline Asuncion, UW Bothell CSS Professor: http://www.uwb.edu/getattachment/about/annualreports/annual-report-uwb11.pdf.

in transformational learning experiences that challenge their expectations, broaden their horizons, and stimulate their ambitions. UWB Core Value Statement[2]

A. UW Bothell Mission

UW Bothell mission reads, "We provide access to excellence in higher education through innovative and creative curricula, interdisciplinary teaching and research, and a dynamic community of multicultural learning." Our mission further holds that we, "Encourage and support collaborative, interdisciplinary and cross-program initiatives." The BSCE degree program espouses UW Bothell's mission.

The degree is inherently interdisciplinary and cross-programmatic and will be jointly administered by the CSS and EE faculties. The Program builds on UW Bothell's commitment to access and support for a diverse student body and will work to ensure greater participation of underrepresented groups in high-demand science, technology, engineering, and math (STEM) professions.

B. UW Bothell Undergraduate Learning Goals

In 2012, UW Bothell faculty addressed the strategic priority of developing campus-wide undergraduate learning goals. The ***Undergraduate Learning Goals*** approved on June 1, 2012, reflect the campus' core values and national research on best practices in undergraduate education:

1. Knowledge of academic and professional theories, practices, and identities within disciplinary and interdisciplinary fields of study
2. Understanding of diversity in cultures, identities, backgrounds, and experiences among individuals and groups
3. Critical analysis of information from multiple perspectives including intercultural, global, and ecological
4. Ethical reasoning in application to self, occupation, citizenship, and society
5. Proficiency in:

    - Communication including writing, speaking, and fluency in a range of media and genres
    - Information and technology literacy
    - Quantitative and qualitative reasoning
    - Creative thinking and problem solving
    - Collaboration and leadership

[2] http://www.uwb.edu/about/vision, accessed 1.2011

The BSCE Program will incorporate the campus-wide learning goals to affirm student success at UW Bothell and support professional growth upon graduation.

III. Need for Program

"While some would make the case that it makes more sense to have other states educate engineers and computer and life scientists and then bring them here; the reality is that we are doing a disservice to our own citizens by not expanding degree granting capacity, especially in STEM related degrees, at Washington's four year institutions. This is because Washington state companies are still creating high-paying jobs in fields that require STEM related bachelor's degrees or higher. The regions that educate their workforces that are geared toward solving big problems will be the regions that will be prosperous over the next several decades."[3]

According to the US Department of Labor, eighty percent of the jobs created in the next ten years will require STEM education. The National Association of Colleges and Employers (NACE) 2012 Job Outlook Survey also indicates growth demand for computer engineers. [4] The survey reports that employers hiring new college graduates express most interest in business, engineering and computer science graduates.

A. National Demand

"What kinds of jobs get outsourced? In a nutshell, jobs that satisfy clearly defined functions in the context of mature sectors with intense competition. Functions that require constant adjustment to changing consumer tastes or client demands are poor candidates for outsourcing. For example, it's often efficient to outsource the writing of blocks of software code but it isn't efficient to outsource the process of defining the software's features, design and documentation."[5]

According to the occupational Outlook Handbook (OOH), computer engineers held approximately 0.9 million jobs in 2010. Additionally, computer engineers are employed in a wide range of industries; however, 32 percent

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[3]http://washingtontechnology.org/community/blogs/wsagovtaffairs/archive/2010/10/13/1822.aspx

[4]http://www.naceweb.org/Press/Releases/Employers_Report_Demand_for_Business,_Engineering,_Computer_Sciences_Graduates.aspx

[5] http: //goldsea.com/Text/index.php?id=2288, accessed June 2012.

were employed in computer systems design and related services. The range of employers includes software publishers, manufacturers of computers and related electronic equipment, financial institutions, and insurance providers. [6]

The job outlook for computer engineers forecasts a faster than average rate of increase for all occupations. Thus, job prospects are excellent with the best opportunities available for individuals with practical experience and at least a bachelor's degree in a computer-related field.[7]

Earnings for engineers vary significantly by specialty, industry, and education. Even so, as a group, engineers earn some of the highest average starting salaries among those holding bachelor's degrees. According the U.S. Department of Labor, Bureau of Labor Statistics, the median income for computer engineers is $88,470. In terms of starting salaries, the average starting salary for computer engineers who have earned a Bachelor's degree is 56,201, while Master's level is $60,000. Computer engineers with Ph.Ds.' receive average starting salaries of $92,500.[8] The following wage table reports salary information for U.S. and Washington State.[9]

Location	Pay Period	2011				
		10%	25%	Median	75%	90%
United States	Hourly	30	37	46	58	71
	Yearly	62,500	77,700	96,600	120,500	147,000
Washington	Hourly	37	41	46	56	69
	Yearly	76,700	84,300	95,700	116,500	143,900

Table I: 2011 US & WA Wage Table

[6] OOH: http://www.bls.gov/oco/ocos303.htm, accessed July 2012

[7] Ibid.

[8] http://www.careercornerstone.org/pdf/compeng/compeng.pdf, accessed July 2012.

[9] US Department of Labor: https://d5nxst8fruw4z.cloudfront.net/atrk.gif?account=Vfvvf1a0mz00g8" style="display:none" height="1" width="1" alt="" />, accessed August 2012.

United States	Employment		Percent Change	Job Openings
	2010	2020		
Software Developers, Systems Software	392,300	519,400	32%	16,800
Washington	Employment		Percent Change	Job Openings
	2008	2018		
Computer software engineers, applications	25,000	30,240	21%	760
Computer software engineers, systems software	18,560	22,470	21%	560
Computer programmers	11,500	13,730	19%	460

Table II: National Employment Matrix Employment Projection Data

B. Washington State

The past year has seen a positive change in demand for jobs in Washington State. Jobs in computer and math related professions are second only to health care occupations in terms of projected growth through 2019. It is essential now more than ever that Washington support and strengthen its technology sector. Labor Market Economic Analysis (LMEA) reports show that information technology occupations are "recession proof". Computer Engineering positions also require education beyond high school including baccalaureate degrees with 94% of the openings requiring more education than a high school degree.[10] Demand data for Washington State includes:

- Between 2009 and 2019, it is estimated that for computer hardware engineers there will be 48 openings annually due to new positions and 51 openings annually from workers leaving this occupation.

- Between 2009 and 2019, it is estimated that for applications computer software engineers there will be 991 openings annually due to new positions and 281 openings annually from workers leaving this occupation.

[10] *Roubinchtein, Alex & Mary Ayala (2008).* "Identifying Washington's Recession-Resistant Industries" in *Washington Labor Market Quarterly Review*, LMEA, 32(4), p15.

- Between 2009 and 2019, it is estimated that for systems software computer software engineers there will be 473 openings annually due to new positions and 158 openings annually from workers leaving this occupation.

Industry growth supports the need for more graduates. The industry added $497.2 million to the state economy, which equates to a growth rate of 14.4 percent, more than double Washington's overall growth. Enterprise Seattle has identified over 150 companies and divisions dedicated to the Computing Industry in our state with the largest employers located in King County. The demand outpaces graduates almost at a rate of 10 to 1 for the state.

C. Regional and Community Demand

The proposed BSCE program is enhanced by UW Bothell's location in the "Technology Corridor." According to LMEA, King, and Snohomish are two of three counties in the state to post job growth since 2009.[11] This is significant when reviewing the impact of the 2008 recession. It underscores the importance of this region in contributing to the economic health of the State.

The Economic Development Council of Snohomish County lists three industry clusters as the focus of the county: Aerospace, Life Sciences (Biotech & Medical Devices), and Clean Technology. These clusters provide the employment foundation for the county. It is worth noting that innovation, growth, and stability in all three sectors will be enhanced with STEM graduates including graduates with degrees in Computer Engineering. The State also uses demand/decline reports to determine where resources should be allocated. Under this program, resources are allocated first to individuals whose unemployment is the result of structural changes in the economy and technological advances which have rendered their skills obsolete. This may also result in a decline for a given occupation. Information is used to prioritize benefits for training where demand is apparent. The reports confirm that computer engineers are in demand in both King and Snohomish counties.[12]

IV. Relationship to UW Programs

A. UW Seattle

UW Seattle offers a Bachelor of Science Degree in Computer Engineering. The program is situated in the College of Engineering and is ABET accredited. It requires 180 credits for graduation and includes pathways for

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[11] 2010 WA State Labor Market and Economic Report, p VI.

[12] Qualifying Occupations, http://www.wilma.org/wdclists/wdaArea.asp?area=000000.

specializations. The degree curriculum requires 33 credits in Computer Engineering with 2 courses listed as prerequisites, and 39 credits in CE Senior Electives. Additional requirements include 41 credits in Mathematics & Natural Sciences with 25 credits listed as prerequisites – 3 Math courses and 2 Physics courses. The program prepares students for careers in industry, academia, and public service, providing technical leadership by solving significant problems across a broad range of application areas.[13] Admission to the program is competitive. As can be seen in the table below, degree production (at the BS level) is moderate and has been stable for the last several years (from historical data, this is true for at least the last 10 years).

UW Seattle						
Academic Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Graduates	41	55	37	51	55	48

Table III: UWS Computer Engineering degree production 2007 - 2012

B. UW Tacoma

UW Tacoma offers a Bachelor of Science degree in Computer Engineering and Systems (CES). The degree combines elements of EE and CS grounded in the theoretical and practical foundations for problem solving in computing. The program curriculum includes 50 credits in core courses, 40 credits in CSS senior electives, and 5 credits in free electives. Students are encouraged but not required to complete prerequisites that include a calculus sequence, a physics sequence, and two engineering courses. The program admits students in the autumn quarter and as indicated by the chart below, enrollment has steadily increased from 2007 – 2012. The program also counts students (pre-majors) that are completing prerequisites for the CES program (see chart). UW Tacoma's CES program educates students to be responsible and productive engineers who can effectively apply emerging technologies to meet future challenges.[14]

UW Tacoma						
Academic Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Pre-Majors	NA	12	12	3	8	12
Majors	4	19	31	49	52	65
Graduates	0	4	6	13	11	10

Table IV: UWT CES enrollment and degree production 2007 - 2012

V. Student Demand

[13] http://www.cs.washington.edu/public_files/ugrad/curriculum/CE_reqs_au11.pdf

[14] http://www.tacoma.uw.edu/institute-technology/curriculum-0

Demand for a degree program with a focus on CE is documented in three ways on campus: 1) enrollment in courses with CE focus, 2) informal surveys, and 3) recruitment and advising reports.

A. Course Enrollment

Computing and Software Systems has seen an extraordinary increase in enrollments in the last two years with more than 230 declared majors in its current programs. Although most courses are open to all students, average class size for upper level courses in the 2011 – 2012 academic year was approximately 30, nearing the capacity of a typical UWB classroom. This has increased with Autumn 2012 enrollment. The popularity is due, in part, to the innovative interdisciplinary approach that prepares students with relevant competencies resulting in industry-ready graduates that are in high demand in our region. The CE program will create opportunity and increase access for more students to reach their educational goals.

Computing & Software Systems Course Total Enrollment Academic Year 2011 - 2012	
Course	# Enrolled
CSS 301	148
CSS 342	134
CSS 343	99
CSS 360	111
CSS 422	90

Table V: Example UW Bothell CSS Course Enrollment

B. Survey

Curriculum ideas are tracked by an informal survey that students or potential students can access when they visit the UW Bothell website. If students are looking for information on degree programs that UW Bothell does not currently offer, they are directed to a survey that asks them to indicate the degree program. Information from the general survey helps to identify degrees that are not named in the survey by asking students to name which degree programs are of interest. Responses have included Computer Engineering which is not listed with potential degree programs in the general survey. However, a survey specific to CE was posted November 2010.

The survey for Computer Engineering has had 26 respondents since its posting; of this number 70% were male and 30% were female. UW Bothell students make up 35% of the respondents with 7% of this number identifying as juniors, 50% as sophomores and 36% as freshmen. The remaining students indicated that they were from Bellevue College – 30%, Cascadia CC – 40%, Shoreline - 10%, and other -10%. Responses to the following two questions support that CE is a strong degree to pursue at UW Bothell:

1. Are you interested in pursuing a BS in Computer Engineering? 100% of the respondents replied yes.
2. How important is it to your decision to enroll at UW Bothell or to remain at UW Bothell if a Computer Engineering degree is not available? The responses are as follow:

- Very - 77%
- Somewhat - 19%
- Not at all – 4%

A sampling of comments includes the following:

- I would be very interested in attaining a Bachelor's degree in Computer Engineering from UWB. I believe many of the classes overlap with Electrical Engineering, so it shouldn't be too difficult to add a Computer engineering degree program.
- Since UWB already offers degrees in Computing & Software Systems and Electrical Engineering, I would think that a Bachelor's degree in Computer Engineering would be easier to implement than other degrees. I am very interested in attending UWB for either a degree in Computer Engineering or Mechanical Engineering.

All of the respondents were confident that they would be able to find employment with a BSCE degree. It should be noted that 40% of the respondents expressed interest in obtaining a professional certificate or attending graduate school.

C. Diversity

Diversity is a core value at UW Bothell. We are committed to understanding and embracing human differences across campus while promoting inclusiveness in a constructive and positive space that encourages the expression of ideas.

Ethnic and gender diversity, or lack thereof, is a persistent issue in STEM fields in general and the computing profession in particular. Our existing undergraduate and graduate degrees have had some success in addressing this issue (for example, 32% of matriculated CSS graduate students are women, compared to the national average of 25% for computer science masters degrees[15]). Diversity goals in general are addressed through a variety of means, including marketing, personal outreach, mentoring of undergraduates, curriculum design, personnel, etc.

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[15] "Computing Degree and Enrollment Trends From the 2010-2011 CRA Taulbee Survey", Computing Research Association, www.cra.org

- We will work to ensure that degree materials, such as brochures and web sites, are helpful to diverse audiences in terms of content and are welcoming through use of imagery (that we model the environment that we wish to build). We will target a wide range of venues for marketing.
- Program staff and faculty will conduct outreach and consult with civic and professional organizations to reach a broad base of potential students.
- We will continue to work with UW Bothell pre-majors to help them think of long-term career goals and the role that a computer engineering degree can play.
- We will use courses designed for pre-majors to build a more diverse pool of potential applicants.
- We will invite diverse speakers to our program's speaker series.
- We continue to emphasize diversity and the ability to work with diverse populations in our faculty and staff searches. CSS has successfully used this approach to hire six women out of 14 total full-time faculty (43%).
- We have plans to pursue scholarship programs to reduce financial barriers to students.
- We will be building continuing relationships with alumni that we can leverage to improve the breadth of our student recruiting (such as having alumni serve as student ambassadors).
- We have a joint hire with the UWB Division of Enrollment Management who focuses on computer science and engineering recruiting. This individual will allow us to build partnerships with feeder institutions throughout the state of Washington, allowing us to reach and influence a more diverse population of potential applicants.
- We are in the process of building partnerships with area school districts and community organizations to provide in-classroom assistance and teacher training relevant to computing education for K-12 schools that lack the expertise to do this themselves.

VI. CE Program

The proposed program is interdisciplinary in focus and designed to leverage curriculum from CSS & EE. Courses developed for the program will contribute to enhancing STEM curriculum on campus. Students will also have an opportunity to choose electives that reinforce their interests and develop soft-skills.

A. Program Educational Objectives

The CE program is designed from the outset to include educational objectives so that faculty and students' academic and programmatic expectations are aligned. Program graduates will be able:

- To become engineering/computing professionals who can assume leadership roles, technical or managerial, in computer engineering and related fields;
- To perform tasks associated with every aspect of a hardware/software product lifecycle;
- To become successful in pursuing advanced studies in computer engineering and related fields;
- To become contributing citizens who are conscientious of ethical and societal responsibilities; and
- To become effective communicators in professional and non-professional environments and be able to function as a team member.

B. Computer Engineering Degree Requirements

Written & Oral Communication (10 credits)

English Composition[16]

Second composition course or Introduction to Technical Writing.

Mathematics & Natural Sciences (40 credits)

BCUSP 124, 125, and 126 (Calculus I, II, & III)[17]

CSS 161 and 162 (Programming I & II)[16]

B PHYS 121 and 122 (Mechanics, Electromagnetism and Oscillatory Motion)[16]

B CHEM 142 (General Chemistry I)

Mathematics (20 credits)

STMATH 307: Introduction to Differential Equations

STMATH 308: Matrix Algebra with Applications

STMATH 324 Multivariable Calculus

STMATH 390: Probability and Statistics in Engineering

Core Classes (65 credits)

CSS 301: Technical Writing for Computing Professionals

B EE 215: Fundamentals of EE

B EE 233: Circuit Theory

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[16] Denotes prerequisites (must be completed before the application deadline).

[17] Denotes prerequisites (must be completed before the application deadline).

B EE 235: Continuous Time Linear Systems

B EE 271: Digital Circuits and Systems

B EE 331: Devices and Circuits

CSS 342: Data Structures, Algorithms, and Discrete Math I

CSS 343: Data Structures, Algorithms, and Discrete Math II

CSS 360: Software Engineering

One of:

CSS 422: Hardware and Computer Organization

or

B EE 425: Microprocessor System Design

CSS 427: Embedded Systems

CSS 430: Operating Systems

COMP E 495: Design Capstone I (2 credits)

COMP E 496: Design Capstone II (3 credits)

Business/Management (5 credits: choose one of the following)

CSS 350: Management Principles for Computing Professionals

B EE/CSS 371: The Business of Technology

CSS or B EE Electives (10 credits)

Electives may be selected from B EE and CSS courses. All CSS/B EE electives must be at or above the 300 level. Of these 10 credits:

- 5 credits must be at or above the 400 level
- a maximum of 5 credits combined can be CSS or B EE special topics courses
- a maximum of 5 credits combined can be CSS or B EE Independent Study or Undergraduate Research

Areas of Knowledge (30 credits)

Visual, Literary, and Performing Arts (VLPA): 15 credits

Individuals and Societies (I&S): 15 credits

C. Quarterly Schedule Worksheet

The following chart exhibits an example pathway for students to progress through the CE degree program. Courses for transfer students or students entering the program with 65 – 90 credits will be evaluated for the best fit with the required CE curriculum.

AUTUMN		WINTER		SPRING		SUMMER	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
BCUSP 124	5	BCUSP 125	5	BCUSP 126	5		
DC 1 (VLPA/IS)	5	DC 2 (VLPA/IS)	5	DC 3 (VLPA/IS)	5		
Composition	5	B PHYS 121	5	B PHYS 122	5		
Quarter Total	15	Quarter Total	15	Quarter Total	15	Quarter Total	

AUTUMN		WINTER		SPRING		SUMMER	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
CSS 161	5	CSS 162	5	CSS 301	5		
CSSSKL 161	1	CSSSKL 162	1	B EE 271	5		
STMATH 324	5	STMATH 390	5	CSS 342	5		
B CHEM 142	5	Adv. Comp (BCUSP 135)	5				
Quarter Total	16	Quarter Total	16	Quarter Total	15	Quarter Total	

AUTUMN		WINTER		SPRING		SUMMER	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
CSS 343	5	CSS 360	5	BEE 235	5		
BEE 215	5	BEE 233	5	BEE 331	5		
CSS/BEE 371 or	5	STMATH 307	5	BEE 425/CSS 422	5		
CSS 350							
Quarter Total	15	Quarter Total	15	Quarter Total	15	Quarter Total	

AUTUMN		WINTER		SPRING		SUMMER	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
CSS 427	5	COMP E 495	2	COMP E 496	3		
CSS/BEE Elec	5	VLPA/IS	5	VLPA/IS	5		
CSS 430	5	CSS/BEE Elec	5	STMATH 308	5		
		VLPA/IS	5				
Quarter Total	15	Quarter Total	17	Quarter Total	13		

D. Faculty

Although the degree program will leverage existing CSS & EE faculty, STEM plans one new hire of a full-time senior lecturer who will have responsibility for ABET accreditation. As noted above, the program will be delivered by STEM faculty.

Laurie Anderson, Senior Lecturer

Dr. Laurie Anderson has worked for two decades in the high-tech computer marketplace as a software developer, network manager, competitive analyst, product manager, and technical and marketing writer. Working with small and large computer organization, including DEC, SUN, and IBM, she has experience in all aspects of the product development cycle with mini-, micro-, and personal-computers, operating systems, networking, and computer security. Her varied experience brings a practical, real-world view of computer technology and business communications that she applies to her teaching.

Hazeline Asuncion, Assistant Professor

Dr. Asuncion received her Ph.D. in computer science from the University of California, Irvine, in 2009. Prior to coming to UW Bothell, she was a Postdoctoral Researcher in the Institute for Software Research at the University of California, Irvine. Her research emphasis is on traceability and she has developed a novel software traceability approach that automatically links distributed and heterogeneous information. She has investigated the tracing of software license conflicts in heterogeneously composed software systems. Dr. Asuncion is also interested in investigating the traceability challenges in other domains such as e-Science and health care.

Arnie Berger, Associate Professor and Chair, Engineering & Mathematics

Dr. Berger spent the majority of his professional career working for the Hewlett-Packard Corporation in Colorado Springs, CO as a hardware engineer and R&D manager. He was fortunate to have started with the company when both Bill Hewlett and Dave Packard were still active in the company. At the time, HP was a company that believed in, and practiced, high standards for ethical conduct and intellectual honesty. These values were codified into what was called, *The HP Way.* Many of these core values have profoundly influenced his teaching philosophy and have given him a very clear direction for what kind of an education students need to have in order to become successful Electrical Engineers and citizens.

Seungkeun Choi, Assistant Professor

Seungkeun Choi is currently an assistant professor in the Science and Technology Program at the University of Washington, located in Bothell, Washington, USA. His research interests range from the development of multidisciplinary sensors and actuators based on microelectromechanical systems (MEMS), to the design, fabrication and testing of lightweight flexible optoelectronics devices such as photovoltaics and light-emitting diodes.

He was born and raised in Seoul, Korea, and is an US permanent resident. He served in the military from 1991 to 1993. He studied at the Soongsil University in Seoul where he received a B.E. degree in Electrical Engineering in 1997. From 1997 to 1998, he was a semiconductor process engineer at the LG Semicon, Korea. He came to the State to attend the Pennsylvania State University in University Park, PA where he received M.S. in Electrical Engineering, specialized in image processing in 2000. He received the Ph.D. degree from the Georgia Institute of Technology, Atlanta, GA in 2007. For his Ph.D., he developed a low-power consuming resonant magnetic field sensor that can detect the direction of the Earth's magnetic field. In 2007, he joined the Center for Organic Photonics and Electronics (COPE) in the same institute as a postdoctoral fellow where he developed large-area organic solar cells and light-emitting diodes. He published more than 15 peer reviewed journal articles and conference proceedings. He joined the faculty of the Science and Technology Program at the University of Washington Bothell in 2012.

Frank Cioch, Professor Emeritus

Dr. Cioch is a software engineer, with degrees in math, statistics and computer engineering, and a doctorate in Computer and Communications Sciences from the University of Michigan. After obtaining his Ph.D. in 1985, he taught at Oakland University in the greater Detroit area. He moved to Seattle and started teaching at Bothell in 2000. After 25 years in the classroom, he retired from teaching in 2010.

Dr. Cioch's technical interests derive from his basic interest in software comprehension, both as it relates to software's internal characteristics and to its utilization in a particular environment. His specialty is assessing the degree of fit of software engineering techniques, tools and methods to any given situation, and tailoring their application to enhance their effectiveness. His practical experience includes serving as a contractor for the U.S. Army, consulting for auto-related companies and participating in the failure of two start-up companies.

Dr. Cioch enjoys teaching because his classes are usually filled with practitioners who are interested in applying what they learn to solve problems they are facing. This affords him an opportunity to make a difference in how they approach their career, a challenge to earn their respect, and a continual source of motivation to keep abreast of current developments.

William Erdly, Associate Professor

Dr. Erdly is a graduate of the University of Washington where he earned a M.S. and Ph.D. in social and organizational psychology. He has been involved in the computing field since the mid-seventies, and his interests include software risk management, quality assurance, human-computer interaction, database design, computer-aided software engineering, workflow management systems, and organizational analysis techniques. He has extensive software development and research experience in the aerospace and health care industries and has served as an independent consultant.

Munehiro Fukuda, Associate Professor and Associate Chair, Computing & Software Systems

Dr. Fukuda received a B.S. from the College of Information Sciences and an M.S. from the Master's Program in Science and Engineering at the University of Tsukuba in 1986 and 1988. He received his M.S. and Ph.D. in Information and Computer Science at the University of California at Irvine in 1995 and 1997, respectively. He has worked in the hardware development of shared-memory multiprocessors at IBM Tokyo Research Laboratory from 1988 to 1993. During his Ph.D. and Postdoc study at UC Irvine from 1993 to 1997, he has focused on software technologies to coordinate parallel and distributed computations, using a navigational autonomy approach. During 1998-2001, he was an Assistant Professor in the Institute of Information Sciences and Electronics at the University of Tsukuba, where he has designed the M++ self-migrating threads to realize parallel execution of multi-agent applications. His research interests include mobile agents, multi-threading, cluster computing, grid computing and distributed simulations.

Tadesse Ghirmai, Assistant Professor

Dr. Ghirmai obtained a B.S. in electrical engineering from Addis Ababa University in 1988, an MSEE in electrical engineering from University of South Florida in1995, and a Ph.D. in electrical engineering from Stony Brook University, New York, in 2004. He is currently an Assistant Professor in the Electrical Engineering program of UWB. His expertise is in communication and signal processing. Dr. Ghirmai has 13 years of experience teaching and developing electrical and computer engineering courses at different institutions. Moreover, he has two years of industrial experience working as a systems engineer with NeXT Wave Wireless Inc., San Diego. Dr. Ghirmai is a member of IEEE, and has published over 20 papers in peer-reviewed journals and conference proceedings.

Rania Hussein, Lecturer

Rania Hussein has a Ph.D. in electrical engineering and M.S. in computer science from Old Dominion University and a B.S. computer engineering from the Arab Academy for Science and Technology. She is a dedicated educator with experience teaching different computer science and engineering courses at undergrad/grad level besides her dedication to promote STEM education to middle and high school students.

Before joining UWB, she worked as a Research Engineer in Advanced and Emerging Technologies at the Walt Disney Company and as a faculty member at DigiPen, where her research focused on image processing, gamification, and data mining of the social web. Additionally, she was a founding board member and a secretary to a new non-profit organization that promotes collaboration between the United States and Egypt in Science, Technology, and Education.

Dr. Hussein is a community activist to develop collaborative diverse communities and promote dialogue among groups of different backgrounds.

Charles Jackels, Professor Emeritus

Dr. Jackels is a graduate of the University of Washington where he earned a Ph.D. in physical chemistry. For many years, Dr. Jackels' research had focused primarily on application of large-scale computational science methods to chemical and physical problems involving the ground and excited state properties of small molecules, especially those that are of importance in Earth's atmosphere. These studies employed large-scale CASSCF, configuration interaction, and perturbation theory calculations.

Recently his scholarship has moved in an entirely different direction, involving collaboration in an international project to conduct service-based chemistry research for improvement of coffee quality with Nicaraguan small-

holder coffee farmers. This project has involved field work on farms in Nicaragua and laboratory studies in both Seattle and Managua.

Mark Kochanski, Senior Lecturer

Mark Kochanski is a graduate of Purdue University where he studied both geology and computer sciences leading up to an M.S. in Economic Geology with a computer application-based thesis in 1984. Mark started working in the computing industry during high school in the mid-70s. From the mid-80s through early 90s, Mark worked in the petroleum industry developing application, enterprise, and industry-wide data models, databases, and user-friendly, data-oriented applications. In 1993, Mark started his successful independent consulting company, Albion Technology, which has provided technology expertise and IT support to a variety of business and organizations. In Mark's 25+ years in the computing field, he has provided computing expertise for a variety of companies from Exxon to startups, educational institutions, non-profit organizations, and the U.S. Government; worked in a variety of computing environments from palm to mainframe and from standalone to massively distributed; developed from device drivers, database engines, and middleware, to business and technical/scientific applications.

Mark's industry background and on-going experience with clients reinforces Mark's desire to help train quality software developers who can grow into technical leads, software architects, and beyond. Mark's technical interests includes anything database, user-friendly applications, component-based systems, XML, and other technologies that lead to creative solutions to difficult real-world problems.

Lawrence Lam, Lecturer

Dr. Lam earned his Ph.D. in Electrical Engineering from the University of Washington, Seattle and a Postdoc in Material Science from the Cornell University. He worked for National Semiconductor to help to develop the world's first BiCMOS SRAM used in the Cray Supercomputer. His research interests are in human machine interface, sensors, OLED display, MEMS and silicon-based optoelectronics. In addition, he practices psychotherapy and is a licensed mental health counselor.

Brent Lagesse, Assistant Professor

Dr. Lagesse received his Ph.D. in computer science from the University of Texas at Arlington in 2009. Prior to coming to UW Bothell, he held positions as a research scientist in the cyber security research groups at Oak Ridge National Laboratory and BBN Techologies.

Dr. Lagesse's expertise is in the areas of cyber security and pervasive systems. His dissertation research was focused on developing trust in pervasive systems, such as mobile peer-to-peer or dynamic service composition. Through game theoretic techniques, he enabled more reliable and secure access to services and resources in pervasive computing environments. Further, he established a framework for increasing code and information reuse in distributed trust mechanisms and for easing the deployment of these mechanisms. His current research focuses on formal methods, internet voting, device and wireless privacy, and secure online machine learning.

Danielle Lee, Assistant Professor

Dr. Danielle Lee received a M.S. degree in Telecommunication and Network Management from Sangmyung University and Syracuse University in 1998 and 2001, respectively. She received her Ph.D. in Information Science at the University of Pittsburgh in 2013. Before pursuing her doctoral degree, she has worked for Samsung SDS Inc., as a software engineer.

Dr. Lee's research interests lie on interdisciplinary research focusing on knowledge management and social media. Her past research revealed an in-depth understanding of knowledge-sharing patterns on various social media applications. She also developed personalized recommendations using social networks, highlighting the potential for new types of social recommendations expandable to more diverse social networks. Her current research focuses on information personalization technologies on social media and the nature of socially constructed metadata.

Joseph McCarthy, Senior Lecturer

Joe McCarthy is an irrepressible instigator, connector and evangelist, interested in the ways that people connect technologies and the ways that technologies connect people. Joe's research and development experience spans the areas of artificial intelligence, natural language processing, machine learning, ubiquitous computing, human-computer interaction and computer-supported cooperative work. After 15 years in the corporate world, Joe renewed his early passion for education, returning to academia in 2011 to empower students to program rather than be programmed. He currently enjoys teach introductory programming courses as well as senior-level computer science courses in operating systems, computer networks, human-computer interaction and social robotics.

Joe's most recent corporate position was founder and director of Strands Labs Seattle, where he led an applied R&D team for Oregon-based Strands Labs, Inc. Prior to joining Strands, Joe was a principal scientist at Nokia, and a senior researcher at Intel and Accenture. He holds a Ph.D. in Computer Science from the University of Massachusetts, and his career includes earlier roles as entrepreneur, professor and consultant. Joe has authored

or co-authored over 40 technical publications, given over 50 presentations, and has served as Conference Co-Chair of CSCW 2002, General Chair of UbiComp 2003, Program Co-Chair of UbiComp 2008, and Chair of the UbiComp Steering Committee from 2003-2009. He currently serves as Editor of the Social Mediator Forum at ACM Interactions magazine.

Clark Olson, Associate Professor

Dr. Olson received the B.S. degree in computer engineering in 1989 and the M.S. degree in electrical engineering in 1990, both from the University of Washington, Seattle. He received the Ph.D. degree in computer science in 1994 from the University of California, Berkeley. After spending two years doing research at Cornell University, he moved to the Jet Propulsion Laboratory, where he spent five years working on computer vision techniques for Mars rovers and other applications. Dr. Olson joined the faculty at the University of Washington, Bothell in 2001. His research interests include computer vision and mobile robotics. He teaches classes on the mathematical principles of computing and database systems, and he continues to work with NASA/JPL on mapping and localization techniques for Mars rovers.

David Socha, Assistant Professor

A fellow Husky, Dr. Socha received his Ph.D. in Computer Science and Engineering from the University of Washington. He also received his B.S. in Zoology from the University of Wisconsin and M.S. in Computer Science from the UW.

He has worked in a variety of software organizations as a programmer, architect, manager, teacher, ScrumMaster, product designer, change agent, and agile coach. His interests have consistently been focused on "how to" effectively design software and human systems, with the focus on the human and social aspects of software development.

"I am a pragmatist. A collaborator. An optimist. I look for simple solutions that address underlying design forces."

Michael Stiber, Professor and Interim Chair, Computing & Software Systems

Dr. Stiber received a BS in Computer Science and a BS in Electrical Engineering from Washington University, Saint Louis, in 1983, and his MS and PhD in Computer Science from the University of California, Los Angeles, where he was a Research and a Teaching Assistant. He has held positions with Texas Instruments (Dallas, Texas), Philips (Eindhoven, Netherlands), and the IBM Los Angeles Scientific Center. He was an Assistant Professor in the Department of Computer Science at the Hong Kong University of Science & Technology during 1992-96 and a

Research Assistant Professor in the Department of Molecular and Cell Biology at the University of California, Berkeley in 1996-97. Dr. Stiber is a frequent visitor to the Department of Biophysical Engineering at Osaka University (Japan). His research interests include: scientific data management and visualization, computational neuroscience, biocomputing, neuroinformatics, simulation, scientific computing, neural networks, autonomous systems, computer graphics, computer vision, nonlinear dynamics, and complex systems.

Dr. Stiber is on the executive committee of the Seattle chapter of the IEEE Computer Society, has served on organizing committees, chaired sessions, and reviewed papers for neural network and computational neuroscience conferences, and is a reviewer for Physica D, The Journal of Computational Neuroscience, and the Bulletin of Mathematical Biology.

Kelvin Sung, Professor

Dr. Kelvin Sung received his Ph.D. in Computer Science at the University of Illinois at Urbana-Champaign in 1992. His background is in computer graphics, hardware and machine architecture. He came to UW Bothell from Alias|Wavefront in Toronto, where he played a key role in designing and implementing the Maya Renderer, a new generation image synthesis system. He also co-designed a patented motion blur algorithm. Images generated based on that algorithm can be found in movies including Independence Day and Wing Commander. Before joining Alias|Wavefront, Kelvin was an Assistant Professor with the School of Computing, National University of Singapore. Kelvin's research interests are in studying the role of technology in supporting human communication. Currently he is studying how different media delivered by technology can better support the presentation of ideas.

Geethapriya Thamilarasu, Assistant Professor

Dr. Thamilarasu received her Ph.D. in computer science and engineering from the State University of New York at Buffalo in 2009. Before coming to UWB, she was an Assistant Professor of Computer and Information Science at the SUNY Institute of Technology, where she directed the wireless sensor and networking security research lab and led development of their MS in Network and Computer Security degree.

Dr. Thamilarasu's research focus is in the field of wireless ad hoc and sensor networks with emphasis on network security and cross-layer optimizations. Her past research addressed the building of robust intrusion detection systems in wireless ad hoc and sensor networks using cross-layer optimizations to provide secure and reliable

wireless networked systems. Her current research is mainly directed towards addressing security in biomedical wireless sensor networks, cloud computing, and vehicular networking.

Carol Zander, Principal Lecturer

Dr. Zander received an M.S. degree in mathematics from the University of Colorado and a M.S. and Ph.D. in computer science from Colorado State University. She has worked in the software industry at Hewlett-Packard and IBM, and her interests include object-oriented programming and design, programming languages, and computer science education. After her original Ph.D. work in Distributed Artificial Intelligence, she was drawn to the education aspect and currently focuses on Computer Science Education research. Her primary research group includes colleagues from the US, Sweden, and Wales.

VII. Accreditation

The curriculum for the CE program is designed to meet requirements for ABET accreditation. The curriculum includes probability and statistics, including applications appropriate to the program name; mathematics through differential and integral calculus; sciences (defined as biological, chemical, or physical science); and engineering topics (including computing science) necessary to analyze and design complex electrical and electronic devices, software, and systems containing hardware and software components. The curriculum also includes include discrete mathematics as required by ABET[18]. The CE program will apply for accreditation when it is eligible.

VIII. Administration and Structure

A. Administration and Advising

The CSS and S&T programs have experienced and dedicated administrative support in place for their undergraduate programs. Program staffing includes undergraduate advisors, a coordinators, and an internship coordinator and advanced systems engineer in CSS. The CSS program also has tutors assigned to courses and that are available to students for general consultations as well.

[18] http://www.abet.org/engineering-criteria-2012-2013/

CSS and EE advisors assist students in the application process and planning current coursework for all of their degrees. Students are encouraged to meet with their advisor once a quarter to check their progress and course planning.

B. Facilities

CSS and EE utilize innovative technology and research tools as an integrated part of their curricula. Enrolled students can access our labs during regular quarters. Lab hours are the same as building hours.

Labs

The Computing and Software Systems Program is committed to maintaining laboratories that reflect the best that computer science has to offer. Their design reflects our understanding that they are not merely places to house computers -- they also serve as hubs for collaboration, discussion, seminars, and social activities. From a technical point of view, our laboratories offer a diverse mix of platforms and software that go beyond typical desktop computing. We maintain four computer laboratories

Windows Lab

Our Windows lab contains 17 Intel Core i7 and Xeon systems running Windows 7 (including three collaborative software development setups) and three Xbox 360 gaming consoles. A full suite of software development software, plus specialized software to support various CSS courses, is available.

Linux Lab

Our Linux lab has 16 2.8GHz Pentium Core 2 Duo desktop machines (three configured for group work) and a cluster of 8 dual-2.8GHz Pentium Core 2 Duo 1U rack-mounted servers, all running Red Hat Enterprise Linux v5. As with the Windows lab, a wide range of development tools and software that is more specialized is installed. The Linux lab also has a small refrigerator and microwave.

Embedded Systems & Networking Lab

The Embedded Systems and Networking Lab contains a variety of Intel workstations running Windows XP, Windows 2000, and Linux. It also contains Hewlett-Packard Logic Analyzers and 68000/ColdFire single-board computers with student project expansion hardware, plus a range of networking hardware and isolated in-laboratory networking infrastructure.

Advanced Projects Lab

The Advanced Projects Lab is available to student groups who are actively working on research projects with CSS faculty. It provides teams with a rich collaborative environment which consists of conference table, soft seating, mobile whiteboards, and tables with whiteboard surfaces.

C. Campus Support Services

The academic life of a student is paramount at UW Bothell; the campus provides a range of services and has an Office of Student Services that supports academic success through programs and resources tailored to academic and co-curricular needs.

Academic Transition Program

The University of Washington Bothell has in place a bridge program, Academic Transition Program (ATP) designed to transition historically disadvantaged, low-income, and first generation college students to college-level coursework. ATP is a year-long program that provides intensive concentration in areas such as university culture and resources, study skills, writing and quantitative skills. ATP includes a Mentorship Program that pairs students with a staff or faculty mentor whom provides general support and assistance as students become familiar with campus resources.

Counseling Services

Confidential, short-term personal counseling is available to UW Bothell students free of charge. Students may access counseling for a wide range of personal concerns such as anxiety, depression, relationship difficulties, or adjustment issues. Services are offered in a safe and supportive environment.

Disabled Student Services

The University of Washington Disability Support Services office (DSS) is committed to ensuring that students with documented disabilities are provided with an equal opportunity to participate in the variety of educational, recreational, and social opportunities available at the University. The primary functions of DSS are academic accommodations for students with a documented, permanent or temporary physical, mental, or sensory disability; resource and referral information; and advocacy support as necessary and appropriate. Academic accommodations for each student are determined on an individual basis with input from the diagnostician or physician (usually from the diagnostic report), the student and the Counselor or Director of the DSS office.

Library

UW Bothell Library is part of the University of Washington Library system, which provides access to over seven million volumes, over 50,000 serials, and hundreds of research databases. Reference services are available during regular library hours and 24/7 through online chat. One of the main features of the UW Bothell Library is an Information Commons, which offers 50+ computer workstations, providing access to the UW Libraries Catalog and online resources, the internet, and a limited suite of productivity software. In alignment with the goals of the UWB CSS program, student access to research librarians is necessary to foster student preparation, retention and achievement.

Media Center

The Campus Media Center (CMC) provides a variety of services to UW Bothell students, faculty and staff. In addition to maintaining and circulating the local media collection, staff members also provide media research and procurement services. The CMC also assists in the development of media-related materials for instruction and provides training to faculty and students in the use of media and technology. The CMC also provides support to UW Bothell's highly technical classrooms. Each room is equipped with state-of-the-art instructional technology including an electronic podium with an on-board instructor, computer and media playback devices.

Quantitative Skills Center

The Quantitative Skills Center is open to anyone who wants academic support with a quantitative question for one or more of their classes. The assistance offered by the QSC is for all students at any time; there is no requirement that a student be in a math class to receive help at the QSC. The QSC offers free tutoring for all UW Bothell students, staff, faculty, and alumni.

Writing Center

The UW Bothell Writing Center supports student writing in all academic programs by providing individual and group consultations (face-to-face and online), workshops, and classroom instruction. The WC will assist a student through the entire writing process. This includes organization, research, conducting reviews and the revision process.

D. Draft Budget

DRAFT Budget	2013-2014	2014-2015	2015-2016
Program Expenses	YEAR ONE	YEAR TWO	YEAR THREE
Admin Faculty Salaries (.12/.20/.20 FTE) Benefits @27.2 %	12,960	20,023	22,915
Faculty Salaries (1.0/2.0/2.5 FTE) Benefits @27.2%	137,376	282,995	364,354
Admin Staff (.2/.25/.3 FTE) Benefits @33.6%	10,688	13,761	17,008
Advising Salaries (.5/.5/.5 FTE) Benefits @33.6%	30,060	30,962	31,891
Library Salaries (.25/.25/.25 FTE) Benefits @ 33.6%	18,700	19,635	20,617
Travel	1,500	1,500	1,500
Equipment	10,000	10,000	10,000
Other — ABET Accreditation Process	-	-	20,000
Library Materials & Resources	10,000	5,000	4,000
Facilities renovation	-	-	-
Replacement/maintenance costs	1,000	1,000	1,000
Faculty Search & Startup Costs	6,000	20,000	-
Total Costs	238,284	404,876	493,285
Projected Enrollment	30	55	65

Undergraduate Curriculum Review Process for New Programs

Bothell: Bachelor of Science in Computer Engineering degree (CSS-20131017)

uwcr
uwcr
Board owner

Posted Jan 6, 2014 12:15 PM

Please review the attached 1503 pdf requesting to establish a Bachelor of Science in Computer Engineering degree at the Bothell campus and post comments by 5:00 pm on Friday, January 24th.

If you have any problems viewing the attachment or need disability accommodations, please contact the University Curriculum Office at uwcr@uw.edu.

Attachments:

CSS-20131017.pdf 6.1M
Download View

Undergraduate Curriculum Review Process for New... > Bothell: Bachelor of Science in Computer Engine...

Your Tools

Undergraduate Curriculum Review Process for New Prograr

Board Participants Profile (anderap)

Bothell: Bachelor of Science in Computer Engineering degree (CSS-201310

uwcr

Board owner

New! *Posted Jan 6, 2014 12:15 PM*

Please review the attached 1503 pdf requesting to establish a Bachelor of Scie Engineering degree at the Bothell campus and post comments by 5:00 pm on

If you have any problems viewing the attachment or need disability accommoc the University Curriculum Office at uwcr@uw.edu.

Attachments:

CSS-20131017.pdf 6.1M
Download View

Undergraduate Curriculum Review Process for New... > Bothell: Bachelor of Science in Computer Er

UNIVERSITY CAMPUSES UNDERGRADUATE PROGRAM REVIEW PROCEDURES**

CHECKLIST

Title of Proposal: Bachelor of Science in Computer Engineering degree (CSS-20131017)

Proposed by (unit name): School of STEM

Originating Campus:

___UW, Seattle

_X_ UW, Bothell

___UW, Tacoma

I. **Phase I. Developed Proposal Review** (to be completed by Originating Campus' Academic Program Review body)

A. Review Completed by: (list name of program review body)

Chaired by:

11/05/13Date proposal received by originating campus's review body

12/04/13 Date proposal sent to University Registrar

01/06/14 Date proposal posted & email sent to standard notification list

01/31/14 Date of originating campus's curriculum body approval
(Note: this date must be 15 business days or more following date of posting)

B. _0___ Number of comments received. Attach the comments and a summary of the consideration and responses thereof : (1-2 paragraphs)

II. **Phase II. Final Proposal Review** (to be completed by FCTCP)

A. Review Completed by:
_x_ FCTCP subcommittee
___ FCTCP full council
Chaired by: William Erdly

2/11/14 Date request for review received from University Registrar
3/6/14 Date of FCTCP report

B. Review (attached)

YES NO
_x_ ___ Was notice of proposal posted on UW Website for 15 business days?
_x_ ___ Was notice of proposal sent to standard mailing list 15 business days in advance of academic program review?
_x_ ___ Were comments received by academic program review body?
_x_ ___ Was response to comments appropriate? (explain, if necessary)
___ _x_ Was final proposal reviewed by FCTCP within 14 days of receipt?
_x_ ___ Was there adherence to the University Campuses Undergraduate Program Review Process? (explain, if necessary)

Report slightly delayed as a high volume of proposals received.

C. Recommendation

_x_ Forward for final approval
___ Forward to Provost because of University issues (Explain)
___ Return to campus council because of insufficient review (Explain).

**Endorsed by Faculty Senate Executive Committee, 1/10/05, modified 1/31/06; These procedures apply to new undergraduate degrees, majors, minors (and certificates) and substantive changes to same