University of Washington Bothell
Electrical Engineering Curriculum

AY23/24

Name: _____   **Student#** _____   **B EE Policies**

B EE Core: 55 credits	
B EE 215: Fundamentals of Electrical Engineering	5
B EE 233: Circuit Theory	5
B EE 235: Continuous Time Linear Systems	5
B EE 271: Digital Circuits & Systems	5
B EE 331: Devices & Circuits I	5
B EE 332: Devices & Circuits II	5
B EE 341: Discrete Time Linear Systems	5
B EE 361: Applied Electrodynamics	5
B EE 425: Microprocessor System Design	5
B ENGR494: Engineering Desing & Innovation	3
B EE 495: Capstone Project in EE I	3
B EE 496: Capstone Project in EE II	4

B EE Electives: 15 credits	
	5
	5
	5

Mathematics: 35 credits	
*STMATH 124: Calculus I	5
*STMATH 125: Calculus II	5
*STMATH 126: Calculus III	5
STMATH 207: Intro to Differential Equations	5
STMATH 208: Matrix Algebra w/ Applications	5
STMATH 224: Multivariable Calculus	5
STMATH 390: Probability & Statistics in Engineering	5

Computer Programming: 10 credits	
CSS 132 (C++ I, preferred) or CSS 142 (Java I)	5
CSS 133 (C++ II, preferred) or CSS 143 (Java II)	5

Natural Science: 21 credits	
*B CHEM 143/144: General Chemistry I w/ Lab	6
*B PHYS 121: Mechanics	5
*B PHYS 122: Electromagnetism & Oscillatory Motion	5
B PHYS 123: Waves	5

Writing/Composition: 15 credits	
*B WRIT134: Composition	5
Technical/Research Writing	5
CSS 301: Technical Writing for Computing Professionals	5

Arts & Humanities (A&H): 15 credits	
	5
	5
	5

Social Science (SSc): 15 credits	
	5
	5
	5

Diversity Course: 5 credits	
	5

Free Electives to reach 180 credits required for degree	

*Program Prerequisites

B EE Policies

A minimum grade of 2.0 is required in each departmental requirement and prerequisite.

Students can take up to 15 EE credits elsewhere such as at UW Seattle with the department's approval.

BENGR494, BEE495, and BEE496 must be taken in consecutive quarters.

CSS requires that students taking CSS 132/142 and 133/143 take the 1 credit corresponding CSSSKL course.

UW Policies

Residency - 45 out of the final 60 credits must be earned at your home campus.

Cross Campus Enrollment - after earning 15 crdits at your home campus, students are able to take up to 15 credits a year at another UW campus.

The Advisory Board for the Bachelor of Science in Electrical Engineering degree at University of Washington Bothell has developed, adopted, and maintain a well-defined set of educational objectives and desired student outcomes.

Educational Objectives The educational objective of the EE degree is to prepare students:
- to become engineers who can assume leadership roles, technical or managerial, in electrical engineering and related fields
- to become successful in pursing advanced studies in electrical engineering and related fields
- to become contributing citizens who are conscientious of ethical and societal responsibilities
- to become effective communicators in professional and non-professional environments and be able to function as a team member.

Student Outcomes   The Advisory Board for the BSEE degree has adopted a set of student outcomes. Each student in the BSEE program will demonstrate meeting the following outcomes by the time of graduation.

> **Outcome (a):** An ability to apply knowledge of mathematics, science, and engineering
>
> **Outcome (b):** An ability to design and conduct experiments, as well as to analyze and interpret data
>
> **Outcome (c):** An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
>
> **Outcome (d):** An ability to function on multi-disciplinary teams
>
> **Outcome (e):** An ability to identify, formulate, and solve engineering problems
>
> **Outcome (f):** An understanding of professional and ethical responsibility
>
> **Outcome (g):** An ability to communicate effectively
>
> **Outcome (h):** The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
>
> **Outcome (i):** A recognition of the need for, and an ability to engage in life-long learning
>
> **Outcome (j):** A knowledge of contemporary issues
>
> **Outcome (k):** An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice including remote interaction through internet