

# University of Washington Bothell

## Electrical Engineering Curriculum

AY24/25

Name: \_\_\_\_\_

Student# \_\_\_\_\_

<b>B EE Core: 55 credits</b>	
B EE 200: Electric Circuits Lab	2
B EE 215: Fundamentals of Electrical Engineering	4
B EE 233: Circuit Theory	4
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 Electromagnetics	5
B EE 425: Microprocessor System Design	5
B ENGR494: Engineering Design & Innovation	3
B ENGR 495: Capstone Project in Engineering I	3
B ENGR 496: Capstone Project in Engineering II	4

<b>B EE Electives: 15 credits</b>	
	5
	5
	5

<b>Mathematics: 35 credits</b>	
*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

\*Program Prerequisites

<b>Natural Science: 21 credits</b>	
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

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

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

<b>Arts &amp; Humanities (A&amp;H): 15 credits</b>	
	5
	5
	5

<b>Social Science (SSc): 15 credits</b>	
	5
	5
	5

<b>Diversity Course: 5 credits</b>	
	5

<b>Free Electives to reach 180 credits required for degree</b>	

### 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, BENGR495, and BENGR496 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 credits at your home campus, students are able to take up to 15 credits a year at another UW campus.

## **The Bachelor of Science in Electrical Engineering (BSEE) program at University of Washington Bothell is a fully ABET-accredited program.**

### **After three to five years of completing their degrees, EE program graduates:**

1. will have growing professional careers in electrical engineering or related fields in the public or private sector.
2. will remain engaged in continuing education, including advanced degrees, in electrical engineering and related fields.
3. will become contributing citizens who are conscientious of ethical and societal responsibilities.
4. will become effective communicators in professional and non-professional environments and be able to function as a team member.

### **The EE program has the following student outcomes:**

**Outcome 1:** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**Outcome 2:** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**Outcome 3:** An ability to communicate effectively with a range of audiences.

**Outcome 4:** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**Outcome 5:** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**Outcome 6:** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**Outcome 7:** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.