# Bachelor of Science in Electrical Engineering

## Degree Map & Planning Information

## Admissions Information

This program is a minimum requirements major.  Upon completion of all prerequisites, applicants may submit a major application through the UWB website.

The Electrical Engineering (EE) major admits students for entry in Autumn and Winter quarters.

All prerequisite courses must be completed before applying, except for applicants seeking Autumn quarter entry who are completing their prerequisites during the preceding Spring quarter. In such cases, admission decisions will be made after Spring quarter grades have been posted.

Minimum requirements for current UW Bothell students:

- Minimum cumulative GPA of 2.7 or higher
- A minimum grade of 2.3 in STMATH 124 Calculus I
- A minimum grade of 2.3 in STMATH 125 Calculus II
- A minimum grade of 2.3 in B PHYS 121 Mechanics
- A minimum average GPA of 2.6 across STMATH 124, STMATH 125, and B PHYS 121
- A minimum grade of 2.0 in B WRIT 134 Composition

## Curriculum Information

### General Education

To be eligible for graduation from the University, with the baccalaureate degree, a student must complete a minimum of 180 academic credits and satisfy all other specific requirements. The University of Washington Bothell has established minimum general education requirements for baccalaureate degrees. These minimum requirements are:

English Composition – 5 credits (A minimum grade of 2.0 is required)
Additional Writing – 10 credits
Reasoning (RSN) – 5 credits
Natural Sciences (NSc) – 15 credits
Arts and Humanities (A&H) – 15 credits
Social Sciences (SSc) – 15 credits
Diversity – 5 credits (can overlap with General Education requirements above)

### Major Requirements

For the EE major, students must complete the following courses with a minimum grade of 2.0 in each course:

EE Core Courses - 55 credits

- B EE 200: Electric Circuits Lab (2 credits)
- B EE 215: Fundamentals of Electrical Engineering (4 credits)
- B EE 233: Circuit Theory (4 credits)
- B EE 235: Continuous Time Linear Systems (5 credits)
- B EE 271: Digital Circuits & Systems (5 credits)
- B EE 331: Devices & Circuits I (5 credits)
- B EE 332: Devices & Circuits II (5 credits)
- B EE 341: Discrete Time Linear Systems (5 credits)
- B EE 361: Applied Electromagnetics (5 credits)
- B EE 425: Microprocessor System Design (5 credits)
- B ENGR 494: Engineering Design & Innovation (3 credits)
- B ENGR 495: Capstone Project in Engineering I (3 credits)
- B ENGR 496: Capstone Project in Engineering II (4 credits)

EE Electives - 15 credits

Foundational Courses - 51 credits

- STMATH 126: Calculus III (5 credits)
- STMATH 207: Introduction to Differential Equations (5 credits)
- STMATH 208: Matrix Algebra with Applications (5 credits)
- STMATH 224: Multivariable Calc (5 credits)
- STMATH 390: Probability & Statistics in Engineering (5 credits)
- B CHEM 143 + 144: General Chemistry I with Lab (6 credits)
- B PHYS 122: Electromagnetism & Oscillatory Motion (5 credits)
- B PHYS 123: Waves (5 credits)
- CSS 132 & 133: Computer Programming for Engineers I & II (10 credits; C++) **or** CSS 142 & 143: Computer Programming I & II (10 credits; Java)
  - Note: C++ is preferred. Enrollment in the corresponding CSSSKL course is required.

College Level English Composition & Writing - 10 credits

- B WRIT 135: Research Writing (5 credits)
- CSS 301: Technical Writing for Computing Professionals (5 credits)

# Sample 4-year Course Plan

## Year 1

| Autumn | Winter | Spring | Summer |
|---|---|---|---|
| STMATH 124 (5) | STMATH 125 (5) | STMATH 126 (5) | |
| B PHYS 121 (5) | B PHYS 122 (5) | B PHYS 123 (5) | |
| B CORE (5-A&H or SSc) | B WRIT 134 (5) | A&H or SSc (5) | |

## Year 2

| Autumn | Winter | Spring | Summer |
|---|---|---|---|
| STMATH 207 (5) | STMATH 224 (5) | STMATH 208 (5) | |
| B CHEM 143 (4) | B WRIT 135 (5) | A&H or SSc (5) | |
| B CHEM 144 (2) | A&H or SSc (5) | A&H or SSc (5) | |
| A&H or SSc (5) | | | |

## Year 3

| Autumn | Winter | Spring | Summer |
|---|---|---|---|
| B EE 215 (4) | B EE 200 (2) | B EE 271 (5) | |
| STMATH 390 (5) | B EE 233 (4) | B EE 331 (5) | |
| CSS 132 (5) | CSS 133 (5) | CSS 301 (5) | |
| CSSSKL 132 (1) | CSSSKL 133 (1) | | |

## Year 4

| Autumn | Winter | Spring | Summer |
|---|---|---|---|
| B EE 235 (5) | B ENGR 494 (3) | B ENGR 495 (3) | B ENGR 496 (4) |
| B EE 332 (5) | B EE 341 (5) | B EE 361 (5) | B EE elective (5) |
| B EE elective (5) | B EE 425 (5) | B EE elective (5) | |

This is a sample schedule of courses based on degree requirements. The actual degree plan may differ depending on the course of study selected, the number of starting credits, or the starting admission point. This guide is not a substitute for academic advising. For more information, contact your academic advisor or visit www.uwb.edu/advising.