## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING OR BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

**COMBINED MAJOR - ELECTRICAL AND COMPUTER ENGINEERING**

**CURRICULUM OUTLINE - CLASS OF 2021, 2022, 2023, 2024**

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

### FALL

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2 AA</th>
<th>Year 2 BB</th>
<th>Year 3 AA</th>
<th>Year 3 BB</th>
<th>Year 4 AA</th>
<th>Year 4 BB</th>
<th>Year 5 AA</th>
<th>Year 5 BB</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1341 Calculus 1 for Engrs.</td>
<td>MATH2341 Diff. Eq./Lin. Alg.</td>
<td>PHYS1155 Physics 2 for Engrs.</td>
<td>CS1B00 Discrete Structures</td>
<td>ECECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>MATH1351 General Chem. for Engrs.</td>
<td>PHYS1155 Physics 2 for Engrs.</td>
<td>PHYS1156 Physics 2 Lab</td>
<td>CS1B00 Discrete Structures</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>MATH1361 Recitation for MATH1351</td>
<td>PHYS1156 Physics 2 Lab</td>
<td>PHYS1157 ILS for PHYS1155</td>
<td>CS1B00 Discrete Structures</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>GE1200 Intro to Eng'g.</td>
<td>CS1B00 Discrete Structures</td>
<td>EECE21x0 ECE2150 OR ECE2160</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>GE1501 Cornerstone of Engineering 1</td>
<td>CS1B00 Discrete Structures</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>ENGW1111 College Writing</td>
<td>4/5</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
<td>EECExxxx EE or CE Fundamentals</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

### SPRING

<table>
<thead>
<tr>
<th>SUMMER 1</th>
<th>SUMMER 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1342 Calculus 2 for Engrs.</td>
<td>Vacation</td>
</tr>
<tr>
<td>PHYS1161 Physics 1 for Engrs.</td>
<td>Vacation</td>
</tr>
<tr>
<td>PHYS1152 Physics 1 Lab</td>
<td></td>
</tr>
<tr>
<td>PHYS1153 ILS for PHYS1151</td>
<td></td>
</tr>
<tr>
<td>GE1502 Cornerstone of Engineering 2</td>
<td></td>
</tr>
<tr>
<td>EECExxxx EE or CE Fundamentals</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

### SUMMER 2

#### Year 1
- PHYS1111 General Chem. for Engrs.
- MATH1341 Calculus 1 for Engrs.
- GE1200 Intro to Eng'g.
- GE1501 Cornerstone of Engineering 1
- GE1502 Cornerstone of Engineering 2
- ENGW1111 College Writing

#### Year 2 AA
- PHYS1155 Physics 2 for Engrs.
- PHYS1156 Physics 2 Lab
- PHYS1157 ILS for PHYS1155
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 2 BB
- PHYS1155 Physics 2 for Engrs.
- PHYS1156 Physics 2 Lab
- PHYS1157 ILS for PHYS1155
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 3 AA
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 3 BB
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 4 AA
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 4 BB
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 5 AA
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

#### Year 5 BB
- CS1B00 Discrete Structures
- MATH2321 Recitation for CS1B00
- EECE21x0 ECE2150 OR ECE2160
- Elective

### Capstone Design Courses
- (EECE4790 - Summer 1 and EECE4792 - Spring) OR (EECE4790 - Summer 2 and EECE4792 - Fall)

### Notes
- The Capstone Design Courses are taken as follows: (EECE4790 - Summer 1 and EECE4792 - Spring) OR (EECE4790 - Summer 2 and EECE4792 - Fall)
- * ENGW3315 is an acceptable substitution for engineering majors.

- NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use General Electives to do so. General Electives are academic, non-remedial, non-repetitive courses.
- Required General Electives

- Technical Elective Requirements: 4 ECE technical electives:
  - EECE2750, EECE3354, EECE3332, EECE3410, EECE4512-EECE4698, EECE4991-EECE4993, EECE5515-EECE5698, GE4608, ENGR5670

- 2 CS courses from the following approved list may be taken toward the ECE technical elective requirement: Approved List: CS2550, CS3200-CS3500, CS3540-CS3800, CS4100-CY4770, CS4850, (IS4200-54700)

- Please check with your advisor when taking a general elective in overlapping disciplines:
  - Approved List: CY2550, (CS3200-CS3500), (CS3540-CS3800), (CS4100-CY4770), CS4850, (IS4200-54700)

- The registrar’s website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.