ELECTRICAL ENGINEERING, ECEI STREAM, B.A.SC. (CLASS OF 2026)

Elective courses in years three and four are to be chosen from Electives Lists A and B, and by consulting suggested Streams and prerequisite paths. Your complete degree program must:

1. Exceed the minimum Accreditation Units (AU) set by ECE in each CEAB category.
2. Have at least 5 courses from Electives List A.
3. Have at least 5 four-hundred level elective courses.
4. Counting required core courses and elective courses in all four years, result in a total of no fewer than 160.5 credits for the complete program.

Available combinations of elective courses are subject to timetabling constraints.

Second Year CORE 2023-2024

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 221</td>
<td>Electric Circuits</td>
<td>4.25</td>
</tr>
<tr>
<td>ELEC 224</td>
<td>Continuous-Time Signals and Systems</td>
<td>3.75</td>
</tr>
<tr>
<td>ELEC 252</td>
<td>Electronics I</td>
<td>4.25</td>
</tr>
<tr>
<td>ELEC 271</td>
<td>Digital Systems</td>
<td>4.00</td>
</tr>
<tr>
<td>ELEC 274</td>
<td>Computer Architecture</td>
<td>4.00</td>
</tr>
<tr>
<td>ELEC 278</td>
<td>Fundamentals Of Information Structures</td>
<td>4.00</td>
</tr>
<tr>
<td>ELEC 280</td>
<td>Fundamentals of Electromagnets</td>
<td>3.75</td>
</tr>
<tr>
<td>ELEC 290</td>
<td>Electrical and Computer Engineering Design and Practice</td>
<td>5.00</td>
</tr>
<tr>
<td>ELEC 292</td>
<td>Introduction to Data Science</td>
<td>3.00</td>
</tr>
<tr>
<td>MTHE 228</td>
<td>Complex Analysis</td>
<td>3.50</td>
</tr>
<tr>
<td>MTHE 235</td>
<td>Diff Equations For Elec &amp; Comp or MTHE 225Ordinary Differential Equations</td>
<td>3.50</td>
</tr>
<tr>
<td>COMM 201</td>
<td>Introduction to Business for Entrepreneurs</td>
<td>3.00</td>
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</table>

Total Units 46.00

Third Year CORE 2024-2025

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ELEC 324</td>
<td>Discrete-Time Signals and Systems</td>
<td>4.00</td>
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<tr>
<td>ELEC 326</td>
<td>Probability &amp; Random Processes</td>
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<tr>
<td>ELEC 353</td>
<td>Electronics II</td>
<td>4.25</td>
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<tr>
<td>ELEC 371</td>
<td>Microprocessor Interfacing and Embedded Systems</td>
<td>4.00</td>
</tr>
<tr>
<td>ELEC 372</td>
<td>Numerical Methods and Optimization</td>
<td>3.50</td>
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<tr>
<td>ELEC 381</td>
<td>Applications of Electromagnetics</td>
<td>3.75</td>
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</table>

Fourth Year CORE 2025-2026

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ELEC 390</td>
<td>Principles of Design and Development</td>
<td>3.50</td>
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<tr>
<td>ENPH 336</td>
<td>Solid State Devices</td>
<td>3.25</td>
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<tr>
<td>COMM 301</td>
<td>Funding New Ventures</td>
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<tr>
<td>COMM 302</td>
<td>Launching New Ventures</td>
<td>3.00</td>
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<tr>
<td>Technical Electives (choose 1)</td>
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<td></td>
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<tr>
<td>Complementary Studies List A</td>
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Total Units 41.75

Electives

Electrical Engineering: Electives (https://queensu-ca-public.courseleaf.com/engineering-applied-sciences/academic-plans/electrical-engineering/electrical-engineering-electives/)

Course Prerequisites

Normally, registration in a course offered by the ECE Department is allowed provided a mark of at least D- has been achieved in each of the prerequisites for the course. Students having one course prerequisite (numbered 200 or higher) with a mark of FR may still be able to register in a course offered by the Department provided their Engineering Cumulative GPA is at least 2.0 at the end of the previous session. Prerequisites are listed under the calendar description for each course.

Complementary Studies

ECEi students are required to take a total of five Complementary Studies courses over 2nd, 3rd and 4th year: one elective Complementary Studies course from List A (Humanities and Social Sciences) and the required four courses COMM 201 Introduction to Business for Entrepreneurs, COMM 301 Funding New Ventures, COMM 302 Launching New Ventures, COMM 405 New Business Development.
New Ventures, COMM 302 Launching New Ventures, and COMM 405 New Business Development.

Communications units are included within the design courses APSC 200 Engineering Design & Practice II and APSC 293 Engineering Communications, ELEC 390 Principles of Design and Development, and ELEC 498 Computer Engineering Project.