## Electrical Engineering, B.S. (124 Units)

**Valid for Catalog Years: 2018/2019 to Present**

*Official planning guide approved by the Lyles College of Engineering*

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### General Education

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**Milestones**

- **A1 (3 Units)** Oral Communication  
  *Must pass with a C or better*

- **D2 (3 Units)** American Government

- **D1 (3 Units)** American History

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### GE Area B2

- **CHEM 3A (4 Units)** Physical Sciences  
  [Pre-Req: GE B4 (may be taken concurrently)]  
  *No credit for CHEM 3A after CHEM 1A*

### GE Area B1

- **ECE 72 (2 Units)**  
  [Pre-Req: ECE 71 or CSCI 40]

### Major

- **GE Area B4**  
  - **MATH 75 (4 Units)** Quantitative Reasoning  
    [Pre-Req: Elementary geometry, intermediate algebra, & trigonometry OR precalculus. Passing score on department's Calculus Readiness Test; ELM]

- **GE Area C2**  
  - **PHIL 1 or 10 (3 Units)** Humanities  
    *See course catalog for prerequisite requirements*

- **GE Area D3**  
  - **ECE 102 (3 Units)**  
    [Pre-Req: ECE 72 (may be taken concurrently); ECE 90; MATH 81 or ENGR 101]

- **GE Area IB**  
  - **ECE 186B (3 Units)** Physical Universe & Its Life Forms  
    [Pre-Req: ECE 186A; UDWS]

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**For assistance or to schedule an advising appointment, please contact the Department of Electrical and Computer Engineering at 559-278-2726, Engineering East 254A**

**Lyle College of Engineering Advising Center:** 559-278-1076, Engineering East 383

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**General Education**

- **A1 (3 Units)** Oral Communication  
  *Must pass with a C or better*

- **D2 (3 Units)** American Government

- **D1 (3 Units)** American History

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**GE Area B2**

- **CHEM 3A (4 Units)** Physical Sciences  
  [Pre-Req: GE B4 (may be taken concurrently)]

- **GE Area B1**

  - **ECE 72 (2 Units)**  
    [Pre-Req: ECE 71 or CSCI 40]

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**Major**

- **GE Area B4**

  - **MATH 75 (4 Units)** Quantitative Reasoning  
    [Pre-Req: Elementary geometry, intermediate algebra, & trigonometry OR precalculus. Passing score on department's Calculus Readiness Test; ELM]

- **GE Area C2**

  - **PHIL 1 or 10 (3 Units)** Humanities  
    *See course catalog for prerequisite requirements*

- **GE Area D3**

  - **ECE 102 (3 Units)**  
    [Pre-Req: ECE 72 (may be taken concurrently); ECE 90; MATH 81 or ENGR 101]

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<td>ECE 1</td>
<td>ECE 71 (3 Units) [Pre-Req: MATH 75 (may be taken concurrently)]</td>
<td>ECE 85L (1 Unit) [Pre-Req: ECE 85 (may be taken concurrently)]</td>
<td>ECE 118 (3 Units) [Pre-Req: ECE 85; CSCI 40 or ECE 71]</td>
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<td>MATH 76 (4 Units) [Pre-Req: MATH 75 or MATH 75A &amp; B]</td>
<td>MATH 77 (4 Units) [Pre-Req: MATH 76]</td>
<td>ECE 118L (1 Unit) [Pre-Req: ECE 118 (may be taken concurrently), 85L]</td>
<td>ECE 126 (3 Units) [Pre-Req: MATH 81 (may be taken concurrently); ECE 90]</td>
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<td>PHYS 4A (3 Units) [Pre-Req: GE B4; MATH 76 (may be taken concurrently)]</td>
<td>PHYS 4B (3 Units) [Pre-Req: PHYS 4A; MATH 77 (may be taken concurrently)]</td>
<td>MATH 81 (3 Units) [Pre-Req: MATH 77] OR ENGR 101 (3 Units)</td>
<td>ECE 128 (3 Units) [Pre-Req: ECE 90]</td>
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<td>PHYS 4BL (1 Unit) [Pre-Req: Corequisite: PHYS 4B]</td>
<td>PHYS 4C (3 Units) [Pre-Req: PHYS 4B; MATH 77]</td>
<td>ECE 128L (1 Unit) [Pre-Req: ECE 90L; ECE 128 (may be taken concurrently)]</td>
<td>ECE 155 (3 Units) [Pre-Req: ECE 124]</td>
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<td>Technical Area (3 Units) *See footnotes</td>
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**Additional Graduation Requirements**
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**FOOTNOTES:**

**Prerequisites/Corequisites:** Other restrictions may apply. Please see your course catalog for detailed prerequisite/corequisite requirements. Students violating any course prerequisites may be required to take an additional course (if they earned a C) or repeat a course (if they earned a D or less.) Repeated violations of prerequisites may trigger disciplinary action.

**Grade Requirements:** Courses in mathematics, the physical sciences, or engineering taken CR/NC are not counted toward fulfillment of degree requirements in Electrical Engineering. The following prerequisite courses must be completed with a letter grade of C or better: ECE 71, 72, 85, 85L, 90, 90L.

**Technical Area (9 units):** Select 9 units from ECE 106, 107, 114, 115, 132, 135, 136, 140, 146, 148, 151, 152, 153, 162, 166, 168, 171, 176, 172, 173, 174, or 178.

**Senior Lab (2 units):** Select 2 units from ECE 119L, 121L, 134L, 136L, or 155L.

**MATH Elective (3 units):** Select one course from MATH 121, 123, 128, 152, 171, 181, or 182.

**Upper Division Writing Skills requirement (UDWS):** All undergraduate students must demonstrate competency in writing skills by passing the Upper Division Writing Exam (UDWE) or by obtaining a C or better in an approved upper division writing course, identified by the letter "W."

**Substitutions:** If substitutions/exceptions/waivers are made for any major courses that also meet GE and/or the Multicultural/International graduation requirement, the student is responsible for completing additional courses to satisfy the respective areas (GE and/or MI). This also includes the upperdivision writing requirement.