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

Valid for Catalog Years: 2015/2016 to 2016/2017

*Official planning guide approved by the Lyles College of Engineering

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<th>Units</th>
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| General Education | A1 (3 Units) Oral Communication  
*Must pass with a C or better | B3 (0-3 Units) Lab | D2 (3 Units) American Government | | | | D1 (3 Units) American History |
| Major | 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 | ECE 72 (2 Units)  
[Pre-Req: ECE 71 or CSCI 40] | ECE 90 (3 Units)  
[Pre-Req: MATH 77 (may be taken concurrently); PHYS 4B] | ECE 102 (3 Units)  
[Pre-Req: ECE 72 (may be taken concurrently); ECE 90; MATH 81 or ENGR 101] | CE 29, ME 29, or ME 136 (3 Units)  
*See course catalog for prerequisite requirements | GE Area D3 ECON 40 or 50 (3 Units) Social Science | GE Area IB ECE 186B (3 Units) Physical Universe & Its Life Forms  
[Pre-Req: ECE 186A; UDWS] |
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**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]

**ECE 85 (3 Units)**
[Pre-Req: ECE 1; MATH 75]

**ECE 90L (1 Unit)**
[Pre-Req: ECE 90 (may be taken concurrently); PHYS 4BL]

**ECE 103 (2 Units)**
[Pre-Req: ECE 128]

**ECE 121 (3 Units)**
[Pre-Req: ECE 128; ECE 125 (may be taken concurrently)]

**GE Area MI**
PLSI 120 or BA 104 3 Units
Multicultural/International
*See course catalog for prerequisite requirements*

**Major**

**ECE 1 (1 Unit)**
Math 76 (4 Units)
[Pre-Req: MATH 75 or MATH 75A & B]

**Math 77 (4 Units)**
[Pre-Req: MATH 76]

**ECE 118L (1 Unit)**
[Pre-Req: ECE 85; SCI 40 or ECE 71]

**ECE 126 (3 Units)**
[Pre-Req: MATH 81 (may be taken concurrently); ECE 90]

**ECE 125 (3 Units)**
[Pre-Req: ECE 124]

**ECE 186A (1 Unit)**
[Pre-Req: 30 units of ECE or instructor permission; UDWS (may be taken concurrently)]

**Technical Area (3 Units)**
*See footnotes*

**ECE 71 (3 Units)**
[Pre-Req: MATH 75 (may be taken concurrently)]

**ECE 85L (1 Unit)**
[Pre-Req: ECE 85 (may be taken concurrently)]

**ECE 118 (3 Units)**
[Pre-Req: ECE 85; ECE 85L]

**ECE 124 (4 Units)**
[Pre-Req: ECE 2, ECE 90; MATH 101 or ENGR 101]

**ECE 125 (3 Units)**
[Pre-Req: ECE 124]

**Technical Area (3 Units)**
*See footnotes*

**PHYS 4A (3 Units)**
[Pre-Req: GE B4; MATH 76 (may be taken concurrently)]

**Phys 4B (3 Units)**
[Pre-Req: PHYS 4A; MATH 77 (may be taken concurrently)]

**Math 81 (3 Units)**
[Pre-Req: MATH 77]

**ECE 128 (3 Units)**
[Pre-Req: ECE 90]

**ECE 138 (3 Units)**
[Pre-Req: ECE 102, 128]

**Senior Lab (1 Unit)**
*See footnotes*

**ECE 128L (1 Unit)**
[Pre-Req: ECE 90L; ECE 128 (may be taken concurrently)]

**ECE 155 (3 Units)**
[Pre-Req: ECE 124]

**Senior Lab (1 Unit)**
*See footnotes*

**Electives**

**PHYS 4BL (1 Unit)**
[Pre-Req: Corequisite: PHYS 4B]

**Phys 4C (3 Units)**
[Pre-Req: PHYS 4B; MATH 77]

**ECE 128L (1 Unit)**
[Pre-Req: ECE 90L; ECE 128 (may be taken concurrently)]

**ECE 155 (3 Units)**
[Pre-Req: ECE 124]

**Senior Lab (1 Unit)**
*See footnotes*

**UDWS (0-4 Units)**
*Upper Division Writing Exam OR "W" Course (must pass with a C or better)*

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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, 133, 135, 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, 135, 155L.

**MATH Elective (3 units):** Select one course from MATH 121, 123, 128, 152, 171, 172, 173, 174, or 178.

**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."