

Electrical Engineering, B.S. (124 Units)
Valid for Catalog Years: 2018/2019 to Present
*Official planning guide approved by the Lyles College of Engineering

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

| | Freshman | | Sophomore | | Junior | | Senior | |
|--------------------------|--|--|---|--|--|---|---|--|
| | Fall | Spring | Fall | Spring | Fall | Spring | Fall | Spring |
| Units | 14 | 17 | 14 | 17 | 16 | 16 | 14 | 16 |
| Milestones | | | | | | | | |
| General Education | A1 (3 Units) Oral Communication *Must pass with a C or better | | | D2 (3 Units) American Government | | | D1 (3 Units) American History | |
| | A2 (3 Units) Written Communication *Must pass with a C or better | | | | | | | |
| Major | GE Area B2 BIOL 10 (3 Units) Life Sciences *Not open to students with credit in BIOL 1A | GE Area B1 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] |
| | 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 | 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) | ECE 121 (3 Units) [Pre-Req: ECE 128] | ECE 134 (3 Units) [Pre-Req: ECE 124; ECE 125 (may be taken concurrently)] | GE Area MI PLSI 120 OR BA 104 (3 Units) Multicultural / International *See course catalog for prerequisite requirements |

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| | Freshman | | Sophomore | | Junior | | Senior | |
|---|---------------------------|---|---|--|---|--|---|---|
| | Fall | Spring | Fall | Spring | Fall | Spring | Fall | Spring |
| Units | 14 | 17 | 14 | 17 | 16 | 16 | 14 | 16 |
| Major | ECE 1 (1 Unit) | 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; CSCI 40 or ECE 71] | ECE 124 (4 Units) [Pre-Req: ECE 2, ECE 90; MATH 81 or ENGR 101] | 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)] | MATH Elective (3 Units) *See footnotes |
| | | 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 118(may be taken concurrently), 85L] | ECE 126 (3 Units) [Pre-Req: MATH 81 (may be taken concurrently); ECE 90] | ECE 138 (3 Units) [Pre-Req: ECE 102, 128] | Senior Lab (1 Unit) *See footnotes | Senior Lab (1 Unit) *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] OR ENGR 101 (3 Units) | ECE 128 (3 Units) [Pre-Req: ECE 90] | ECE 138L (1 Unit) [Pre-Req: ECE 128L; ECE 138 (may be taken concurrently)] | | |
| | | | 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] | | |
| Additional Graduation Requirements | | | | | | | Technical Area (3 Units) *See footnotes | Technical Area (6 Units) *See footnotes |

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| Units | 14 | 17 | 14 | 17 | 16 | 16 | 14 | 16 |

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.