## Computer 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

- **Milestones**
  - A1 (3 Units)  
    Oral Communication  
    *Must pass with a C or better*
  - D2 (3 Units)  
    American Government

- **Major**
  - GE Area B2  
    BIOL 10 (3 Units)  
    Life Sciences  
    *Not open to students with credit in BIOL 1A*
  - GE Area C2  
    PHIL 1 or 10 (3 Units)  
    Humanities  
    *See course catalog for prerequisite requirements*
  - ECE 81 OR  
    CSCI 41 (4 Units)  
    [Pre-Req: CSCI 40]
  - ECE 72 (2 Units)  
    [Pre-Req: ECE 71 or CSCI 40]
  - ECE 103 (2 Units)
  - 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*
  - 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]

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

Revised 6/2018
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## Major

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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 1**
- (1 Unit)
  - [Pre-Req: MATH 75 or MATH 75A & B]

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

**ECE 71**
- (4 Units)
  - [Pre-Req: ELM or College Intermediate Algebra (C or better); trigonometry]

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

**ECE 90**
- (3 Units)
  - [Pre-Req: MATH 77 or MATH 75]

**ECE 90L**
- (1 Unit)
  - [Pre-Req: ECE 90 or MATH 77]

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

**ECE 108**
- (3 Units)
  - [Pre-Req: ECE 90]

**ECE 108L**
- (1 Unit)
  - [Pre-Req: ECE 108L or 176]

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

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

**ECE 106**
- (3 Units)
  - [Pre-Req: ECE 85 or equivalent]

**ECE 118**
- (3 Units)
  - [Pre-Req: ECE 85, ECE 71 OR CSCI 40]

## Lab Elective
- (1 Unit)
  - [Pre-Req: 30 units of ECE or instructor permission; UDWS (may be taken concurrently)]

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

**ECE 118**
- (3 Units)
  - [Pre-Req: ECE 106]

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

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**Major**

- **Freshman**
  - **Fall**: PHYS 4BL (1 Unit) [Pre-Req: Corequisite: PHYS 4B]
  - **Spring**: MATH 81 (3 Units) [Pre-Req: MATH 77] OR ENGR 101 (3 Units)

- **Sophomore**
  - **Fall**: ECE 118L (1 Unit) [Prerequisite or corequisite: ECE 118]

- **Junior**
  - **Fall**: Technical Elective (3 Units)
  - **Spring**: UDWS (0-4 Units) *Upper Division Writing Exam OR "W" Course (must pass with a C or better)

- **Senior**
  - **Fall**: Technical Electives (6 Units) *See footnotes
  - **Spring**: Technical Electives (6 Units) *See footnotes

### Additional Graduation Requirements

- **Freshman**: Additional Graduation Requirements
- **Sophomore**: Additional Graduation Requirements
- **Junior**: Additional Graduation Requirements
- **Senior**: Additional Graduation Requirements

### 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 Computer Engineering. The following prerequisite courses must be completed with a letter grade of C or better: ECE 72, 71, 85, 85L, 90, 90L.

**Technical Area (9 units):** Select at least 9 units from ECE 114, 126, 132, 134, 135, 138, 138L, 140, 146, 148, 155, 172, 173; CSCI 144, or 156.

**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.