

2017-2018 ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

Students must **pick one Depth** to complete the EE Major requirements.

Due to six different college requirements, only **major** requirements are listed below. Students must speak to their college advisor for questions regarding General Education requirements.

ALL courses used to satisfy major requirements must be taken for a **letter grade and passed with a C- or better**.

ELECTRONIC CIRCUITS AND SYSTEMS

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 102, 103, 107, 109
Depth: ECE 164, 165, 166
Technical Electives: five upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

ELECTRONIC DEVICES AND MATERIALS

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 102, 103, 107, 109
Depth: ECE 135A-B, 136L, 183
Technical Electives: four upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

PHOTONICS

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 103, 107, 109
Depth: ECE 181, 182, 183 and either ECE 184 or 185
Technical Electives: five upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

2017-2018 DEPTH REQUIREMENTS CONTINUED ON NEXT PAGE →

COMMUNICATION SYSTEMS

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 102, 107, 109
Depth: ECE 153, 154A-B-C, 158A
Technical Electives: four upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

MACHINE LEARNING AND CONTROLS

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 107, 109
Depth: ECE 171A, 174, 175A and one of ECE 171B, 172A, or 175B
Technical Electives: six upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

SIGNAL AND IMAGE PROCESSING

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 107, 109
Depth: ECE 153, 161A-B-C
Technical Electives: six upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111, 190, or 191

COMPUTER SYSTEM DESIGN

Lower Division Courses [72 units]

MATH 18, 20A-B-C-D-E
PHYS 2A-B-C-D
CHEM 6A
ECE 5, 15, 25, 30, 35, 45, 65

Upper Division Courses [68 units]

Breadth: ECE 100, 101, 102, 103, 109
Depth: CSE 141, ECE 165 and two of ECE 111, ECE 158A or CSE 143
Technical Electives: five upper division engineering, math, or physics courses
Professional Electives: two upper division courses
Design: one of ECE 111*, 190, or 191

**If not taken as a Depth course*