

Appendix A: Sample Programs of Study for the ECE Major and Select Second Majors, Minors, and Special Programs

Table A.1a

Electrical and Computer Engineering (ECE) Major (matric ≤ 2017)

First Year	
Fall Semester	Spring Semester
EGR 103L Computational Methods in Engineering	ECE 110L Fundamentals of ECE
Math 111L Introductory Calculus I	Math 112L Introductory Calculus II
Chem 101DL Core Concepts in Chemistry ¹	Physics 151L Introductory Mechanics ²
Writing 101 / Social Science or Humanities Elective 1	Social Science or Humanities Elective 1 / Writing 101
Sophomore Year	
Fall Semester	Spring Semester
ECE 280L Signals and Systems	ECE 230L / ECE 250D / ECE 270DL
COMPSCI 201 Data Structures and Algorithms	ECE 230L / ECE 250D / ECE 270DL
Math 212 Multivariable Calculus	Math 216 Linear Algebra & Differential Equations
Physics 152L Intro Electricity, Magnetism, Optics ²	Social Science or Humanities Elective 3
Social Science or Humanities Elective 2	
Junior Year	
Fall Semester	Spring Semester
ECE 230L / ECE 250D / ECE 270DL	ECE Elective 1 ⁴
ECE Concentration Elective 1 ³	ECE Concentration Elective 2
Math 353 Ordinary & Partial Differential Equations	Statistics Elective ⁵
Social Science or Humanities Elective 4	Social Science or Humanities Elective 5
Senior Year	
Fall Semester	Spring Semester
ECE Elective 2 or Approved ECE Design Elective ⁶	Approved ECE Design Elective or ECE Elective 2
ECE Concentration Elective 3	ECE Concentration Elective 4
Natural Science/Engineering Elective ⁷	Free Elective
Free Elective	Free Elective
Free Elective	

1. AP credit for Chem 20 or 21 is also acceptable.
2. See also the Physics requirements on [p.6](#).
3. ECE Concentration Electives: Four courses selected from the set approved for the ECE program. Courses must be selected from at least two areas, and at least two courses must be from the same area. See [Appendix D: Approved ECE Concentration Elective Areas and Courses](#) for a complete course listing.
4. ECE Elective: Any ECE course at the 300 level or above.
5. Statistics Elective selected from the list of approved Statistics electives, found in [Appendix E](#).
6. Approved ECE Design Elective: Approved Electrical & Computer Engineering Design Elective taken after meeting all Math, Science, and ECE Core curriculum requirements. In addition, each approved design elective has one or more pre-requisite upper-level ECE courses. The elected design course may not simultaneously also count as an ECE Concentration Elective or ECE Elective. See [Appendix E](#) for a list of all currently approved Design courses.
7. The Natural Science/Engineering Elective may be satisfied by taking an upper-level (300-level or above) Natural Science/Engineering course, or by taking a course selected from a list of approved 200-level Natural Science/Engineering courses (check with DUS for approved list), found in [Appendix E](#).