

## Sample Program of Study for ECE Majors

<b>FIRST YEAR</b>	
<i>Fall Semester</i>	<i>Spring Semester</i>
1. WRITING 20/SS-H 1	1. SS-H 1/WRITING 20
2. CHEM 31L, Core Concepts in Chemistry	2. PHYSICS 61L, Mechanics
3. MATH 31, Calculus I	3. MATH 32, Calculus II
4. EGR 53L, Computational Methods in Engineering	4. ECE27L, Fundamentals of ECE
<b>SOPHOMORE YEAR</b>	
<i>Fall Semester</i>	<i>Spring Semester</i>
1. COMPSCI 100E, Program Design & Analysis II	1. ECE 51L, Microelectronic Devices & Circuits
2. ECE 52L, Digital Systems	2. ECE 54L, Signals & Systems
3. MATH 103, Intermediate Calculus	3. MATH 107, Linear Algebra & Differential Equations
4. PHYSICS 62L, Electricity, Magnetism & Optics	4. BIOLOGY 101L, 102L, 144 or 147
5. Free Elective	5. SS-H 2
<b>JUNIOR YEAR</b>	
<i>Fall Semester</i>	<i>Spring Semester</i>
1. ECE 53L, Electromagnetic Fields	1. ECE Elective*
2. ECE Concentration Elective (1)*	2. ECE Concentration Elective (2)*
3. MATH 108, Ordinary & Partial Differential Equations	3. STA 113, Probability & Statistics or MATH 135, Probability or ECE 255, Probability for ECEs *
4. SS-H 3	4. SS-H 4
<b>SENIOR YEAR</b>	
<i>Fall Semester</i>	<i>Spring Semester</i>
1. ECE Concentration Elective (3)*	1. ECE Concentration Elective (4)*
2. ECE Elective or Approved ECE Design Elective*	2. Approved ECE Design Elective or ECE Elective*
3. SS-H 5	3. Free Elective
4. Free Elective	4. Free Elective

\* See NOTES for explanations

## NOTES:

- **WRITING 20:** University Writing Program, required in first year.
- **SS-H:** Social Sciences and Humanities, 5 required semester-course electives, [appropriately distributed](#).
- **CHEM 31L:** AP credit CHEM 19 is also acceptable. Students who have successfully completed CHEM 21L need not take CHEM 31L.
- **PHYSICS 61L & 62L:** Matriculating students who have AP credit for PHYSICS 61L (but not 62L) take PHYSICS 62L; those who have AP credit for PHYSICS 61L and 62L take PHYSICS 63L; and international students who have IPCs for GCE A-level physics take PHYSICS 63L or 143.
- **BIOLOGY 101L, 102L, 144 or 147:** AP credit BIOLOGY 19 is also acceptable.
- **STA 113** is recommended but students may substitute MATH 135 or ECE 255. If ECE 255 is elected, it may not simultaneously also count as an ECE Concentration Elective, ECE Elective, or Approved Design Elective.
- **ECE Concentration Electives:** Four courses selected from the [set approved for the ECE program](#). Courses must be selected from at least two Areas of Concentration, and at least two courses must be from the same Area.
- **ECE Elective:** Any ECE course at the 100 level or above except ECE 148L, which latter may be taken as a Free Elective.
- **Approved Design Elective:** Approved Electrical Engineering Design Elective, required in Senior year (or in Junior year if the student has *senior status*). Currently ECE 123, 135, 154, 164, 251, and 261 are approved. The same course may not be used as a required Concentration Elective, a required ECE Elective, or a required Design Elective.
- **Independent Study:** Accepted for up to two of the Elective ECE Courses and for any of the Free Electives, but not for any other required course in the ECE Program. Independent Study and Undergraduate Research are encouraged for qualified students, and required for Graduation with Departmental Distinction, but may require overload or summer study to fit into the ECE Program. A course overload is not recommended during the first year.

