

**Sample Electrical and Computer Engineering (ECE) and
Mechanical Engineering (ME) Dual Program**
[with Advanced Math Placement and One SS-H Credit]

FIRST YEAR	
Fall Semester	Spring Semester
1. WRITING 20/SS-H 2	1. SS-H 2/WRITING 20
2. MATH 32, Calculus II	2. MATH 103, Intermediate Calculus
3. CHEM 21L, General Chemistry	3. PHYSICS 61L, Mechanics
4. EGR 53L, Comp Methods in Engineering	4. EGR 20, Engineering Innovation
SOPHOMORE YEAR	
Fall Semester	Spring Semester
1. ECE 27L, Fundamentals of ECE	1. ECE 51L, Microelectronic Devices & Circuits
2. MATH 107, Linear Algebra & Differential Equations	2. MATH 108, Ordinary & Partial Differential Equations
3. PHYSICS 62L, Electricity, Magnetism & Optics	3. ME 83L, Structure & Properties of Solids
4. EGR 75L, Mechanics of Solids	4. EGR 123L, Dynamics
5. COMPSCI 100E, Program Design & Analysis II	5. EGR 119, Electrical Fundamentals of Mechatronics
JUNIOR YEAR	
Fall Semester	Spring Semester
1. ECE 52L, Digital Systems	1. ECE 53L, Electromagnetic Fields
2. ECE 54L, Signals & Systems	2. ME 131, Analysis for Design
3. ECE 142, Robotics & Automation	3. ME 125L, Control of Dynamic Systems
4. ECE 255, Probability & Statistics for Engineers	4. ME 126L, Fluid Mechanics
5. ME 101L, Thermodynamics	
SENIOR YEAR	
Fall Semester	Spring Semester
1. ECE Concentration Elective	1. ME 160L, Mechanical System Design
2. ME 150L, Heat Transfer	2. BIOLOGY 25L, Principles of Biology or BIOLOGY 147, Systems Biology
3. ME 141L, Mechanical Design	3. ME Technical Elective
4. Approved Design Elective	4. SS-H 4
5. SS-H 3	5. SS-H 5

NOTES:

- **WRITING 20:** University Writing Program, required in first year.
- **SS-H:** Social Sciences and Humanities, 5 required semester-course electives, appropriately distributed.
- **PHYSICS 61L & 62L:** PHYSICS 51L & 52L are acceptable substitutes for PHYSICS 61L & 62L, respectively.
- **BILOGY 25L or 147:** AP credit BIOLOGY 19 is also acceptable.
- **ECE Concentration Elective:** One course selected from the set approved for the ECE program.
- **Approved Design Electives:** Any one of the Approved ECE Design Electives. (Currently ECE 123, 135, 154, 164, 251 and 261 are approved.)
- **ME Technical Elective:** Any ME course at 100 level or higher.