

Table A.3a
ECE/BME Double Major (matriculating classes ≤ 2010)

Freshman Year	
Fall Semester	Spring Semester
EGR 103L (53L) Computational Methods in Engineering	Chem 210DL (32L) Mod Apps Chem Principles or Chem 201DL (151L) Organic Chemistry
Math 111L (31L) Introductory Calculus I	Math 112L (32L) Introductory Calculus II
Chem 101DL (31L) Core Concepts in Chemistry ¹	Physics 151L (61L) Introductory Mechanics ²
Writing 101(20) / Social Science or Humanities Elective 1	Social Science or Humanities Elective 1 / Writing 101(20)
Sophomore Year	
Fall Semester	Spring Semester
ECE 110L (27L) Fundamentals of ECE	ECE 230L (51L) Microelectronic Devices and Circuits
COMPSCI 201 (100) Data Structures and Algorithms	ECE 280L (54L) Signals and Systems
Math 212 (103) Multivariable Calculus	Math 216 (107) Linear Algebra & Differential Equations
Physics 152L (62L) Intro Electricity, Magnetism, Optics ²	BME 260L (100L) Modeling Cell & Molecular Systems
Biology 201L (101L) Molecular Biology	EGR 201L (75L) Mechanics of Solids
Junior Year	
Fall Semester	Spring Semester
ECE 270L (53L) Electromagnetic Fields	ECE Concentration Elective 1 ³
ECE 250L Computer Architecture	BME 354L (154L) Biomed Electronics and Measurement II
Math 353 (108) Ordinary & Partial Differential Equations	BME 301L (201L) Bioelectricity or BME 303 (233) Modern Diagnostic Imaging Systems ^{5,6}
ME 221L (83L) Structure and Properties of Solids	Stat 130 (113) Probability and Statistics
Social Science or Humanities Elective 2	Social Science or Humanities Elective 3
Senior Year	
Fall Semester	Spring Semester
ECE Elective ⁴ or ECE Concentration Elective 2	ECE Elective or ECE Concentration Elective 2
BME design: BME 436L (236L) or 464L (264L)	Physiology or Life Science Elective ⁶
BME Area Elective ⁵	BME General Elective
Social Science or Humanities Elective 4	Social Science or Humanities Elective 5

- Students are required to have Chem 21 (19) or take Chem 101DL (31L) or Chem 110DL (43L).
- See also the Physics requirements on [p.5](#).
- 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 C](#) for a complete course listing.
- ECE Elective: Any ECE course at the 300 (100) level or above.
- If BME 301L (201L) is taken, the Area Elective must be from the Bioelectricity Area
If BME 303 (233) is taken, the Area Elective must be from the Imaging and Sensors Area
See the BME Undergraduate Program Handbook for details.
- If BME 303 (233) is taken, choose from approved list of Physiology Electives
If BME 301L (201L) is taken, choose from the approved list of Life Science Electives
See the BME Undergraduate Program Handbook for details.