Table A.4b
ECE with Physics Second Major (matric ≥ 2018)
(with one Math AP credit)

First Year	
Fall Semester	**Spring Semester**
EGR 101L Engineering Design & Communication	ECE 110L Fundamentals of ECE
Math 122L Calculus II	Math 212 Multivariable Calculus
EGR 103L Computational Methods in Engineering[7]	Physics 151L Introductory Mechanics
Writing 101 / Chem 101DL Core Concepts in Chemistry[1]	Chem 101DL Core Concepts in Chemistry / 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 216 Linear Algebra & Differential Equations	Math 353 Ordinary & Partial Differential Equations
Physics 152L Intro Electricity, Magnetism, Optic	Physics 361 Intermediate Mechanics
Social Science or Humanities Elective 1	Social Science or Humanities Elective 2
Junior Year	
Fall Semester	**Spring Semester**
ECE 230L / ECE 250D / ECE 270DL	ECE Elective[3]
ECE Concentration Elective 1[2]	ECE Concentration Elective 2
Physics 264L Optics and Modern Physics	Statistics Elective[4]
Physics 362 Electricity & Magnetism	Physics Elective (200-level or above)
Social Science or Humanities Elective 3	Social Science or Humanities Elective 4
Senior Year	
Fall Semester	**Spring Semester**
Approved ECE Design Elective[5] / Social Science or Humanities Elective 5	Social Science or Humanities Elective 5 / Approved ECE Design Elective
ECE Concentration Elective 3	ECE Concentration Elective 4
Physics 464 Quantum Mechanics I	Physics Elective (300-level or above)
Physics 417S Advanced Physics Lab & Seminar	Physics 363 Thermal Physics[6]

1. AP credit for Chem 20 or 21 is also acceptable.
2. 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.
3. ECE Elective: Any ECE course at the 300 level or above. Note that ECE 311, which is required for the Physics major, counts as a second ECE elective.
4. Statistics Elective selected from the list of approved Statistics electives, found in Appendix E.
5. 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, ECE Extension Elective, or ECE Elective. See Appendix E for a list of all currently approved Design courses.
6. Physics 363 satisfies the ECE Extension Elective requirement.
7. Students who place into CompSci 201 are not required to take EGR 103L.