

Table A.2b
ECE with Computer Science (COMPSCI) Second Major (matric ≥ 2021)

First Year	
Fall Semester	Spring Semester
EGR 101L Engineering Design & Communication	ECE 110L Fundamentals of ECE
Math 111L Introductory Calculus I	Math 112L Introductory Calculus II
EGR 103L Computational Methods in Engineering ¹	Physics 151L Introductory Mechanics ³
Writing 101 / Chem 101DL Core Concepts in Chemistry ²	Chem 101DL Core Concepts in Chemistry / Writing 101
Sophomore Year	
Fall Semester	Spring Semester
ECE 280L Signals and Systems	ECE 230L / ECE 270DL
COMPSCI 201 Data Structures and Algorithms	ECE 250D Computer Architecture
Math 218-2 Matrices and Vectors	Math 219 Multivariable Calculus
Physics 152L Intro Electricity, Magnetism, Optics ³	Social Science or Humanities Elective 2
Social Science or Humanities Elective 1	
Junior Year	
Fall Semester	Spring Semester
ECE 230L / ECE 270DL	ECE 350L Digital Systems
COMPSCI 310 Operating Systems	COMPSCI 307D or 308 (Adv.) Soft Design & Implement
Math 353 Ordinary & Partial Differential Equations	Statistics Elective ⁴
Social Science or Humanities Elective 3	Social Science or Humanities Elective 4
Senior Year	
Fall Semester	Spring Semester
ECE Elective ⁶ or ECE Digital Systems Elective ⁷	ECE Elective or ECE Digital Systems Elective
ECE Extension Elective ⁸ or ECE/COMPSCI Design Elective ⁹	ECE Extension Elective or ECE/COMPSCI Design Elective
COMPSCI 330 Design & Analysis of Algorithms	COMPSCI Elective ¹⁰
ECE Concentration Elective ⁵	Free Elective
Social Science or Humanities Elective 5	

1. Students who place into CompSci 201 are not required to take EGR 103L.
2. AP credit for Chem 20 or 21 is also acceptable.
3. See also the [Physics requirements](#).
4. Statistics Elective selected from the list of approved Statistics electives, found in [Appendix E](#).
5. ECE Concentration Elective: One course selected from the set of approved ECE Concentration Electives *from outside the Computer Engineering and Digital Systems area*. See [Appendix D: Approved ECE Concentration Elective Areas and Courses](#). For the ECE with COMPSCI second major, the four-course ECE Concentration requirement is satisfied by taking this one non-Digital Systems ECE Concentration elective in addition to three other courses built into the ECE with COMPSCI second major curriculum: ECE 350L, COMPSCI 310, and an ECE Digital Systems Elective.
6. ECE Elective: Any ECE course at the 300 level or above.
7. ECE Digital Systems Elective: One course from the Digital Systems area in the list of Approved ECE Concentration Area electives (see [Appendix D: Approved ECE Concentration Elective Areas and Courses](#)).
8. ECE Extension Elective: Any upper-level (300-level or above) Natural Science or Engineering course, or one selected from a list of approved 200-level Natural Science courses (check with DUS for approved list). **AP credits cannot be used to satisfy this requirement.** See [ECE Extension Elective](#) for complete description and constraints.
9. Approved ECE/COMPSCI Design Elective: Approved ECE/COMPSCI 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.
10. COMPSCI Elective: Any COMPSCI elective at the 200 level or above.