

Curriculum in Computer Engineering

Freshman

Fall	Hours	Spring	Hours
CHEM 1030 Fundamentals Chemistry I		3 COMP 1210 Fundamentals of Computing I	3
CHEM 1031 Fundamental Chemistry I Laboratory		1 ENGL 1120 English Composition II	3
ENGL 1100 English Composition I		3 ENGR 1110 Introduction to Engineering	2
ENGR 1100 Engineering Orientation		0 MATH 1620 Calculus II	4
MATH 1610 Calculus I		4 PHYS 1600 Engineering Physics I	4
Core Fine Arts ¹		3	
	14		16

Sophomore

Fall	Hours	Spring	Hours
COMP 2210 Fundamentals of Computing II		4 COMP 2710 Software Construction	3
ELEC 2200 Digital Logic Circuits		3 ELEC 2110 Electric Circuit Analysis	4
MATH 2630 Calculus III		4 ELEC 2220 Computer Systems	3
PHYS 1610 Engineering Physics II		4 MATH 2650 Linear Differential Equations	3
		MATH 2660 Topics in Linear Algebra	3
	15		16

Junior

Fall	Hours	Spring	Hours
COMP 3240 Discrete Structures		3 COMP 3270 Introduction to Algorithms	3
COMP 3500 Introduction to Operating Systems		3 ELEC 3050 Embedded System Design Lab	1
ELEC 2120 Signals and Systems		4 ELEC 3800 Random Signals and Systems	3
ELEC 2210 Digital Electronics		4 ELEC 4200 Digital System Design	3
Core History ¹		3 Core History or Core Social Science ¹	3
		Ethics ²	3
	17		16

Senior

Fall	Hours	Spring	Hours
ELEC 4010 Capstone Design I		1 ELEC 4020 Capstone Design II ⁴	3
CMPE Elective ³		3 CMPE Elective ³	5
ELEC 5200 Computer Architecture and Design		3 Free Elective ⁵	3
ELEC 5220 Information Networks and Technology		3 Core Literature ¹	3
INSY 3600 Engineering Economy ⁵		3 UNIV 4AA0 Creed to Succeed	0
Core Social Science ¹		3	
	16		14

Total Hours: 124

Comments:

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1 The AU Bulletin lists the University Core Curriculum requirements for students in the College of Engineering. Students must complete a sequence in either literature or History. Because of the discipline specific requirements for the Humanities courses, it is recommended that a History sequence be completed in the Social Sciences courses.

2 Ethics course options: PHIL 1020 Introduction to Ethics, PHIL 1030 Ethics and the Health Sciences, PHIL 1040 Business Ethics, and PHIL 1113 Ethical and Conceptual Foundations of Science.

3 CMPE elective - see advisor for approved course listing.

4 Students must have completed ELEC 2120 and ELEC 3050, and must have completed at least 3 of the following 4 courses: COMP 3270, ELEC 3800, ELEC 5200, ELEC 5220 before registering for ELEC 4020.

5 For students completing the ROTC program, the first ROTC course may be used as the 3-hour free elective, and the second ROTC course may be substituted for INSY 3600.