CURRICULUM SHEET Prior to Fall 2025

Computer Engineering

Degree requirements - 126 credits

	Fall - 14 credits		Credits	Spring - 15 credits		Credits
FIRST YEAR	ECE102	Digital Circuit Logic ***(F,S)***	4	ECE251	Introduction to Microcontrollers and IoT ***(F,S; ECE102 with a C or higher)***	4
	MATH160 Fulfills AUCC Category 1B	Calculus for Physical Scientists I ***(F,S,SU; MATH124 with a B or higher; MATH126 with a B or higher or MATH127 with a B or higher)***	4	MATH161	Calculus for Physical Scientists II ***(F,S,SU; MATH124 or MATH127; MATH159 or MATH160)***	4
	CS150B[1] Fulfills AUCC Category 3B	Culture and Coding: Python ***(F,S)***	3	CS164[1]	CS1 - Computational Thinking with Java ***(F,S; CS150B with a B or higher or CS152 with a B or higher or CS163)***	4
	CO150[2] Fulfills AUCC Category 1A	College Composition ***(F,S,SU CO 130 or Placement)***	3	University Core	AUCC Category 1C, 3B, 3C, 3D ***(F,S,SU)***	3

	Fall - 18 credits		Credits	Spring - 15-17 credits		Credits
SECOND YEAR	ECE103	DC Circuit Analysis ***(F,S; MATH159 with a C or higher or MATH160 with a C or higher)***	3	ECE202	Circuit Theory Application ***(S,SU; ECE103 with a C or higher; MATH161 with a C or higher)***	4
	CS165	CS2 - Data Structures ***(F,S; CS162 with a C or higher or CS163 with a C or higher or CS164 with a C or higher)***	4	ECE232	Introduction to Project Practices ***(F,S; ECE202 or concurrent registration or ECE395B or concurrent registration)***	1
	CT301	C++ Fundamentals (***F,S; CS162 with a C or higher or CS163 with a C or higher or CS164 with a C or higher***)	2	ECE303	Introduction to Communications Principles ***(S; MATH261 with a C or higher; MATH340 or concurrent registration)***	3
	MATH261	Calculus for Physical Scientists III ***(F,S,SU; MATH161)***	4	MATH340	Intro to Ordinary Differential Equations ***(F,S,SU; MATH261)***	4
	PH141 Fulfills AUCC Category 3A	Physics for Scientists and Engineers I ***(F,S,SU; MATH159 or concurrent registration or MATH160 or concurrent registration)***	5	PH142 **or** Approved AUCC 3A Bio/Phy Science[3]	Physics for Scientists and Engineers II ***(F,S; PH141; MATH161 or concurrent registration)*** **or** See Approved List ***(F,S,SU)***	3-5

	Fall - 16-17 credits		Credits	Spring - 16-17 credits		Credits
THIRD YEAR	ECE311	Linear Systems Analysis I ***(F; ECE202 with a C or higher ; MATH340 with a C or higher; ECE451 or ECE528 or CS356 or concurrent registration)***	3	MATH369 **or** DSCI369	Linear Algebra I ***(F,S,SU; MATH 161)*** **or** Linear Algebra for Data Science ***(S; MATH159 or MATH160 or MATH161)***	3-4
	CS214	Software Development ***(F,S; CS165 with a C or higher)***	3	CS220	Discrete Structures ***(F,S; CS152 with a B or higher OR CS162 or CS163 or CS164 with a C or higher; MATH159 or MATH160)***	4
	Computer Engineering Electives[3]	See Approved List - Group 1 ***(F,S)***	7-8	Computer Engineering Electives[3]	See Approved List - Group 1 ***(F,S)***	6-7
	CO301B **or** JTC300 Fulfills AUCC Category 2	Writing in the Disciplines-Sciences ***(F,S; CO150 or HONR193)*** **or** Strategic Writing and Communication ***(F,S,SU; CO150 or HONR193)***	3	University Core	AUCC Category 1C, 3B, 3C, 3D ***(F,S,SU)***	3

	Fall - 16 credits		Credits	Spring - 13-15 credits		Credits
FOURTH YEAR	ECE401 Fulfills AUCC Category 4	Senior Design Project I ***(F,S; ECE232 with a C or higher; ECE311 with a C or higher; 4 courses from ECE452, ECE456, ECE451, ECE528, CS356, ECE312 with a C or higher, ECE331 with a C or higher, ECE332 with a C or higher)***	3	ECE402 Fulfills AUCC Category 4	Senior Design Project II ***(F,S; ECE401)***	3
	Computer Engineering Electives[3] and Technical Electives[3]	See Approved List - Group 2 and Group 3 ***(F,S)*** and See Approved List ***(F,S)***	10	Computer Engineering Electives[3] and Technical Electives[3]	See Approved List - Group 2 and Group 3 ***(F,S)*** and See Approved List ***(F,S)***	7-9
	University Core	AUCC Category 1C, 3B, 3C, 3D ***(F,S,SU)***	3	University Core	AUCC Category 1C, 3B, 3C, 3D ***(F,S,SU)***	3

[1] Students may also choose one of the following: 1) Arts/Humanities AUCC + CS152 + CS162; or 2) Arts/Humanities AUCC + CS163

[2] College Composition must be completed within the first 60 (CSU and transfer) credits taken

[3] See list of approved courses on the ECE website: https://www.engr.colostate.edu/ece/undergraduates/degree-programs/computer-engineering-undergrad/

ECE prefix courses required for the major at the 100, 200, and 300 level must be passed with a C or higher; grades below a C will require the student to retake the course.

ECE courses designated as an elective are exempt from the C or higher minimum grade requirement.