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MAJOR IN COMPUTER ENGINEERING, EMBEDDED AND IOT SYSTEMS CONCENTRATION

Major Completion Map

Distinctive Requirements for Degree Program:

TO PREPARE FOR FIRST SEMESTER: The curriculum for this major assumes students enter college prepared to take calculus.

In order to maintain professional standards required of practicing engineers, the Department of Electrical and Computer Engineering requires a cumulative grade point average of at least 2.000 in Electrical Engineering courses as a graduation requirement. It is the responsibility of any student who fails to maintain a 2.000 average to work with their advisor to correct grade point deficiencies. ECE courses required for the major at the 100, 200, and 300 level must be passed with a minimum grade of C (2.000); 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.

Freshman					
Semester 1		Critical	Recommended	AUCC	Credits
CO 150	College Composition (GT-CO2)		Х	1A	3
First course fr	rom Group A, B, or C (See options in Program Requirements Tab)) Х		3B	3
ECE 102	Digital Circuit Logic	Х			4
MATH 160	Calculus for Physical Scientists I (GT-MA1)	Х		1B	4
	Total Credits				14
Semester 2		Critical	Recommended	AUCC	Credits
Remaining co Requirements	urse(s) from Group A, B, or C (See options in Program 5 Tab)	Х			4
ECE 251	Introduction to Microcontrollers and IoT	Х			4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	х		1B	4
Diversity, Equi all-university-	ty, and Inclusion (http://catalog.colostate.edu/general-catalog/ core-curriculum/aucc/#diversity-equity-inclusion)		Х	1C	3
	Total Credits				15
Sophomore					
Semester 3		Critical	Recommended	AUCC	Credits
CS 165	CS2Data Structures	Х			4
CT 301	C++ Fundamentals		Х		2
ECE 103	DC Circuit Analysis	Х			3
MATH 261	Calculus for Physical Scientists III	Х			4
PH 141	Physics for Scientists and Engineers I (GT-SC1)	Х		ЗA	5
	Total Credits				18
Semester 4		Critical	Recommended	AUCC	Credits
ECE 202	Circuit Theory Applications	Х			4
ECE 232	Introduction to Project Practices	Х			1
ECE 303/ STAT 303	Introduction to Communications Principles	Х			3
MATH 340	Intro to Ordinary Differential Equations	Х			4
Department A	pproved Science (See List on Program Requirements Tab)		Х	3A	3
	Total Credits				15
Junior					
Semester 5		Critical	Recommended	AUCC	Credits
CS 214	Software Development	Х			3
CS 220	Discrete Structures and their Applications	Х			4
ECE 311	Linear System Analysis I	Х			3
ECE 450	Digital System Design Laboratory	Х			1
ECE 451	Digital System Design	Х			3
Select one co	urse from the following:				3
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)		Х	2	

	Х	2	
			17
Critical	Recommended	AUCC	Credits
Х			3
Х			3
	Х	3C	3
			3
Х			
Х			
log/all-	Х	3D	3
			15
Critical	Recommended	AUCC	Credits
			3
Х		4A,4B	3
			4
Х			
on X			8
			18
Critical	Recommended	AUCC	Credits
Х		4C	3
on X			8
ı/all- X		3B	3
urses in the X			
			14
			126
	Critical X X X X X X X X X X X X X X X X X X X	Critical Recommended X X X X Iog/all- X Critical Recommended X X on X Critical Recommended X X on X y/all- X X X	X 2 Critical Recommended AUCC X X 3C X X 3D Iog/all- X 3D Critical Recommended AUCC X X 4A,4B X X 4D on X 4D X X 3B y/all- X 3B