Computer Engineering
Bachelor of Science Degree

Curriculum Year 2020-2021

FRESHMAN YEAR

Fall Semester		Cr	Term Completed		Spring Semester		Cr	Term Completed	
ENGR 1020/1021	Engineering Disciplines and Skills[1]	2			ENGR 1410/1411	Programming and Problem Solving[3]	3		
CH 1010/1011	General Chemistry	4			MATH 1080	Calculus II	4		
ENGL 1030	Composition and Rhetoric	3			PHYS 1220	Physics with Calculus I	3		
MATH 1060	Calculus I	4				Humanities/Social Science Req.[2]	3		
	Humanities/Social Science Req.[2]	3				Humanities/Social Science Req.[2]	3		
		16					16		

SOPHOMORE YEAR

Fall Semester		Cr	Term Completed		Spring Semester		Cr	Term Completed	
CPSC 1110/1111	Intro to Programming in C	3			ECE 2120	Electrical Engineering Lab II	1		
ECE 2010	Logic and Computing Devices	3			ECE 2220	Systems Programming	3		
ECE 2020	Electric Circuits I	3			ECE 2620	Electric Circuits II	3		
ECE 2090	Logic Lab	1			ECE 2720	Computer Organization	3		
ECE 2110	Electrical Engineering Lab I	1			ECE 2730	Computer Organization Lab	1		
MATH 2060	Calculus III	4			MATH 2080	Differential Equations	4		
PHYS 2210	Physics with Calculus II	3							
		18					15		

JUNIOR YEAR

Fall Semester		Cr	Term Completed		Spring Semester		Cr	Term Completed	
ECE 2230	Computer Systems Engineering	3			ECE 3170	Random Signal Analysis	3		
ECE 3110	Electrical Engineering Lab III	1			ECE 3220	Introduction to Operating Systems	3		
ECE 3200	Electronics I	3			ECE 3270	Digital Computer Design	3		
ECE 3300	Signals, Systems & Transforms	3			ECE 3520	Programming Systems	3		
ECE 3710	Microcontroller Interfacing	3			MATH 4190	Discrete Mathematics	3		
ECE 3720	Microcontroller Interfacing Lab	1							
MATH 3110	Linear Algebra	3							
		17					15		

SENIOR YEAR

Fall Semester		Cr	Term Completed		Spring Semester		Cr	Term Completed	
ECE 4090	Intro to Linear Control Systems	3			ECE 4960	Integrated Systems Design II	2		
ECE 4950/4951	Integrated Systems Design I	2				Humanities/Social Science Req.[2]	3		
ENGL 3140	Technical Writing	3				CpE Technical Elective[4]	3		
	CpE Technical Elective[4]	3				CpE Technical Elective[4]	3		
	CpE Probability & Statistics Req.[5]	3				Special Requirement[7]	3		
	Communications Requirement[6]	3							
		17					14		

[1] Or ENGR 1050/1060.

[2] See General Education section of the *Undergraduate Announcements*. Six of these credit hours must also satisfy General Education Cross-Cultural Awareness and Science and Technology in Society Requirements.

[3] Or ENGR 1070/1080/1090.

[4] Select from approved Technical Elective listing found on ECE website https://www.clemson.edu/cecas/departments/ece/resources/undergrad_resources/curriculum.html.

[5] ECE 4270 (Communications Systems), ECE 4300 (Digital Communications) or ECE 4400 (Performance Analysis of Local Computer Networks).

[6] COMM 1500/1501 *or* COMM 2500/2501.

[7] Special Requirement Options:
  a. A 3-credit approved Humanities/Social Sciences course (see listing here: www.clemson.edu/cecas/current-students/humanities_policy.html); or
  b. An additional 3-credit, 4000-level course from the EE Technical Elective List *or* the CpE Technical Elective List; or
  c. An additional 3-credit MATH course from the following list: MATH 4120 (Intro to Modern Algebra), MATH 4340 (Advanced Engineering Math), MATH 4350 (Complex Variables), MATH 4400 (Linear Programming), MATH 4410 (Intro to Stochastic Models), *or* MATH 4530 (Advanced Calculus).

Updated 10 March 2020