Electrical Engineering
Bachelor of Science
Degree Curriculum Year
2016-2017

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			CH 1020/1021	General Chemistry II	4	
ENGL 1030	Composition and Rhetoric	3			MATH 1080	Calculus II	4	
MATH 1060	Calculus I	4			PHYS 1220	Physics with Calculus I	3	
	Humanities/Social Science Req.[2]	3				Humanities/Social Science Req.[2]	3	
		16					17	

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	2			ECE 2620	Electric Circuits II	3	
ECE 2020	Electric Circuits I	3			ECE 2720	Computer Organization	3	
ECE 2090	Logic Lab	1			ECE 2730	Computer Organization Lab	1	
ECE 2110	Electrical Engineering Lab I	1			MATH 2080	Differential Equations	4	
MATH 2060	Calculus III	4				Humanities/Social Science Req.[2, 4]	3	
PHYS 2210	Physics with Calculus II	3						
		17					15	

JUNIOR YEAR

Fall Semester		Cr	Term Completed		Spring Semester		Cr	Term Completed
ECE 3110	Electrical Engineering Lab III	1			ECE 3120	Electrical Engineering Lab IV	1	
ECE 3200	Electronics I	3			ECE 3170	Random Signal Analysis	3	
ECE 3300	Signals, Systems and Transforms	3			ECE 3210	Electronics II	3	
ECE 3710	Microcontroller Interfacing	3			ECE 3600	Electric Power Engineering	3	
ECE 3720	Microcontroller Interfacing Lab	1			ECE 3810	Fields, Waves and Circuits	3	
ECE 3800	Electromagnetics	3			ENGL 3140	Technical Writing	3	
	Advanced Mathematics Req.[5]	3						
		17					16	

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 4270	Communications Systems	3				Humanities/Social Science Req.[2]	3	
ECE 4950/4951	Integrated Systems Design I	2				EE Technical Elective[6]	3	
	EE Technical Elective[6]	3				EE Technical Elective[6, 8]	3	
	Communications Requirement[7]	3				Special Requirement[9]	3	
		14					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] Or EE Technical Elective (ECE 2220 Systems Programming Concepts for Computer Engineering).

[5] MATH 4190 (Discrete Math. Structures), MATH 4340 (Adv. Engr. Math), MATH 4350 (Complex Variables), MATH 4530 (Adv. Calc. I), or MATH 4540 (Adv. Calc. II).

[6] Select from the list on page 2 of this document.

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

[8] Or Humanities/Social Science Req. if ECE 2220 taken in sophomore year.

[9] 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 3110 (Linear Algebra), MATH 4120 (Intro to Modern Algebra), MATH 4190 (Discrete Math), MATH 4340 (Advanced Engineering Math), MATH 4350 (Complex Variables), MATH 4400 (Linear Programming), MATH 4410 (Intro to Stochastic Models), MATH 4530 (Advanced Calculus I), MATH 4540 (Advanced Calculus II); or
   d. ELE 3010 Executive Leadership and Entrepreneurship I (prerequisite MGT 2010).

Updated 12 June 2017