

Computer Engineering

Bachelor of Science

Curriculum Year 2023-2024

FRESHMAN YEAR

Fall Semester		Cr	Term Completed	Spring Semester		Cr	Term Completed
ENGR 1020/1021	Engineering Disciplines and Skills ¹	3		ENGR 1410/1411	Programming and Problem Solving ⁴	3	
CH 1010/1011	General Chemistry	4		MATH 1080	Calculus II	4	
ENGL 1030/1031	Composition and Rhetoric	3		PHYS 1220	Physics with Calculus I	3	
MATH 1060	Calculus I ²	4			Arts & Humanities/Social Science Req. ³	3	
	Arts & Humanities/Social Science Req. ³	3			Arts & Humanities/Social Science Req. ³	3	
		17				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			Arts & Humanities/Social Science Req. ³	3	
ENGL 3140	Technical Writing ⁵	3			CpE Technical Elective ⁶	3	
	CpE Technical Elective ⁶	3			CpE Technical Elective ⁶	3	
	CpE Probability & Statistics Req. ⁷	3			Special Requirement ⁹	3	
	Communications Requirement ⁸	3					
		17				14	

Total credit hours = 129

¹ Or ENGR 1050/1060 or ENGR 1510/1520. Satisfies three credits of the Global Challenges requirement if met by ENGR 1020 and taken at Clemson. (Otherwise, three credits of the Global Challenges requirement must be met with three additional credits.)

² Or MATH 1040/1070.

³ See General Education section of the *Undergraduate Announcements*. Three of these credits must also satisfy the South Carolina REACH Act Requirement (if the requirement is not already satisfied upon admission to Clemson).

⁴ Or ENGR 1070/1080/1090 or ENGR 1640.

⁵ Or the cluster of AS 3090, AS 3100 and AS 4090 may be substituted.

⁶ Select from approved Technical Elective listing found on ECE website https://www.clemson.edu/cecas/departments/ece/resources/undergrad_resources/curriculum.html.

⁷ ECE 4270, ECE 4300, or ECE 4400.

⁸ COMM 1500/1501 or COMM 2500/2501 or HON 1950 or HON 2230 or AS 3090/3100/4090/4100 or ML 1010/1020.

⁹ Three additional Global Challenges credits at the 3000 or 4000 level with a course prefix other than ENGR; or, if the six Global Challenges credits are satisfied by other requirements such as ENGR 1020 and a qualifying CpE Technical Elective, any of the following: (1) A 3-credit approved Humanities/Social Sciences course (see listing in the current Undergraduate Catalog: <http://catalog.clemson.edu/>); (2) An additional 3-credit, 4000-level course from the EE Technical Elective List or the CpE Technical Elective List; (3) MATH 4120 or MATH 4340 or MATH 4350 or MATH 4400 or MATH 4410 or MATH 4530.