

# COMPUTER ENGINEERING

Courses highlighted below are available at Newberry College

## Curriculum Example\*

### FRESHMAN YEAR

_____ 4 CH 1010 General Chemistry	_____ 3 ENGR 1410 Programming and Problem Solving <sup>1,2</sup>
_____ 3 ENGL 1030 Accelerated Composition	_____ 4 MATH 1080 Calculus of One Variable II <sup>2</sup>
_____ 2 ENGR 1020 Engineering Discipline and Skills <sup>1</sup>	_____ 3 PHYS 1220 Physics with Calculus I <sup>2</sup>
_____ 4 MATH 1060 Calculus of One Variable I <sup>2</sup>	_____ 6 Gen Ed <sup>3</sup>
_____ 3 Gen Ed <sup>3</sup>	16

### SOPHOMORE YEAR

_____ 3 CPSC 1110 Introduction to Programming in C <sup>2</sup>	_____ 1 ECE 2120 Electrical Engineering Lab. II <sup>2</sup>
_____ 2 ECE 2010 Logic and Computing Devices <sup>2</sup>	_____ 3 ECE 2220 Systems Programming Concepts for Computer Engineering <sup>2</sup>
_____ 3 ECE 2020 Electric Circuit I <sup>2</sup>	_____ 3 ECE 2620 Electrical Circuits II <sup>2</sup>
_____ 1 ECE 2090 Logic and Computing Devices Lab.	_____ 3 ECE 2720 Computer Organization <sup>2</sup>
_____ 1 ECE 2110 Electrical Engineering Lab. I <sup>2</sup>	_____ 1 ECE 2730 Computer Organization Laboratory
_____ 4 MATH 2060 Calculus of Several Variables <sup>2</sup>	_____ 4 MATH 2080 Int. to Ordinary Differential Eqtns <sup>2</sup>
_____ 3 PHYS 2210 Physics with Calculus II <sup>2</sup>	15

### JUNIOR YEAR

_____ 3 ECE 2230 Computer Systems Engineering <sup>2</sup>	_____ 3 ECE 3170 Random Signal Analysis <sup>2</sup>
_____ 1 ECE 3110 Electrical Engineering Lab. III <sup>2</sup>	_____ 3 ECE (CPSC) 3220 Intro. to Operating Systems <sup>2</sup>
_____ 3 ECE 3200 Electronics I <sup>2</sup>	_____ 3 ECE 3270 Digital Computer Design <sup>2</sup>
_____ 3 ECE 3300 Signals, Systems, and Transforms <sup>2</sup>	_____ 3 ECE (CPSC) 3520 Programming Systems <sup>2</sup>
_____ 3 ECE 3710 Microcontroller Interfacing <sup>2</sup>	_____ 3 MATH 4190 Discrete Math. Structures I
_____ 1 ECE 3720 Microcontroller Interfacing Lab.	15
_____ 3 MATH 3110 Linear Algebra <sup>2</sup>	

### SENIOR YEAR

_____ 3 COMM 1500 Intro. to Human Comm. <i>OR</i>	_____ 2 ECE 4960 Integrated System Design II
_____ 3 COMM 2500 Public Speaking	_____ 3 Gen Ed <sup>3</sup>
_____ 3 ECE 4090 Intro. to Linear Control Systems <sup>2</sup>	_____ 6 Computer Engr. Technical Requirement <sup>4</sup>
_____ 2 ECE 4950 Integrated System Design I <sup>2</sup>	
_____ 3 ENGL 3140 Technical Writing	_____ 3 Special Requirement <sup>5</sup>
_____ 6 Computer Engr. Technical Requirement <sup>4</sup>	14

All Clemson engineering students begin in our General Engineering program and move into their specified major once the departmental standards are completed. **127 Total Semester Hours**  
 Clemson courses ENGL 1030, MATH 1060 and 1080, PHYS 1220, CH 1010, ENGR 1020 and ENGR 1410/or CHE 1300 must all be completed with a "C" or higher before declaring and starting courses in your engineering major.

#### Footnotes:

- <sup>1</sup> ENGR 1070, ENGR 1080 and ENGR 1090 may be substituted for ENGR 1410; ENGR 1050 and ENGR 1060 may be substituted for ENGR 1020
  - <sup>2</sup> This course must be passed with a grade of C or better either to transfer into Computer Engineering from General Engineering or to satisfy later course prerequisites.
  - <sup>3</sup> See General Education section. Six of these credit hours must also satisfy General Education Cross-Cultural Awareness and Science and Technology in Society Requirements.
  - <sup>4</sup> Twelve credits selected from BIOE 3700\*, BIOE 4310\*, BIOE 4350\*, BIOE 4710\*, ECE 3210\*, ECE 4050+, ECE 4160\*, ECE 4270, ECE 4300, ECE 4310, ECE 4380, ECE 4400, ECE 4420, ECE 4490, ECE 4550, ECE 4590\*, ECE 4600, ECE 4670, ECE 4680, ECE 4730, ECE 4910+, ECE 4920+, ECE 4930+ and ECE 4990+. Three credits of this requirement must include ECE 4270, ECE 4300, or ECE 4400. A maximum of six credits of courses marked with an asterisk and a maximum of three credits of courses marked with a plus may be used to satisfy this requirement.
  - <sup>5</sup> Three additional credits of university or college approved Arts and Humanities or Social Science courses; or ELE 3010 or ELE 4010; or any additional three-credit, 4000-level course from footnote 4 above; or any course selected from the following: ECE 4040, ECE 4060, ECE 4180, ECE 4190, ECE 4200, ECE 4220, ECE 4320, ECE 4360, ECE 4370, ECE 4460, ECE 4570, ECE 4610, or ME 3100; or one additional course selected from MATH 4120, MATH 4340, MATH 4350, MATH 4400, MATH 4410 or MATH 4530.
- \*See catalog for current curriculum at [catalog.clemson.edu](http://catalog.clemson.edu)

General Education Requirements						
LIT	Non-Lit	SS1	SS2		CCA	STS
Other						
LIFE	Palmetto Fellows	Honors	Athlete	RiSE	ROTC	Med School

Comments: