COMPUTER ENGINEERING - BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G and ENGL 1110G . The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

First Year		
Fall		**Credits**
ENGR 190	Introduction to Engineering Mathematics	4
ENGL 1110G or ENGL 1110H or ENGL 1110M	Composition I or Composition I Honors or Composition I	4
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
ENGR 120	DC Circuit Analysis	4
	Credits	**16**
Spring		
MATH 1511G or MATH 1511H	Calculus and Analytic Geometry I [1] or Calculus and Analytic Geometry I Honors	4
CSCI 1720	Computer Science I	4
ENGR 130	Digital Logic	4
ENGR 140	Introduction to Programming and Embedded Systems	4
	Credits	**16**
Second Year		
Fall		
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II or Calculus and Analytic Geometry II Honors	4
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab	4
E E 200	Linear Algebra, Probability and Statistics Applications	4
ENGR 230	AC Circuit Analysis	4
	Credits	**16**
Spring		
CSCI 2310	Discrete Mathematics for Computer Science	4
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II Lab	4
CSCI 2210	Object-Oriented Programming	4
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
	Credits	**18**
Third Year		
Fall		
E E 300	Cornerstone Design	2
E E 317	Semiconductor Devices and Electronics I	4
CSCI 2220	Introduction to Data Structures and Algorithms	4
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
	Credits	**16**
Spring		
E E 320	Signals and Systems I	3
E E 362	Introduction to Computer Organization	4
General Education Course [2]		3
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
STEM Elective [3,4]		3
	Credits	**16**
Fourth Year		
Fall		
ENGR 401	Engineering Capstone I	3
E E 462	Computer Systems Architecture	3
E E 480	Introduction to Analog and Digital VLSI	3
Comp Engineering Elective [3,5]		3
Comp Engineering Elective [3,5]		3-4
	Credits	**15-16**
Spring		
ENGR 402	Engineering Capstone II	3
Comp Engineering Elective [3,5]		3
Comp Engineering Elective [3,5]		3-4
Comp Engineering Elective [3,5]		3-4
General Education Requirement (Area I, IV, V, VI or VWW) [2]		3
	Credits	**15-17**
	Total Credits	**128-131**

1. MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G Calculus and Analytic Geometry I first.
2. See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses.
3. Depending on availability of specific courses in the fall or spring semester, students may need to reorganize the Comp Engineering Electives, STEM electives, and/or Gen Ed electives in their junior and senior year. Students are strongly advised to consult with their ECE Faculty Mentor for assistance in planning their final year.
4. STEM Elective: Course at the 300/3000 level or above from E E or CSCI that is not used to satisfy any other program specific requirement or courses at the 300 level or above from A E, C E, CHME, I E, M E, ASTR, BIOL, CHEM, MATH, PHYS and STAT. Excluded courses include VWW courses and those which are substantially equivalent to an E E or CSCI course. Click to view a list of excluded STEM Electives (https://ece.nmsu.edu/undergrad-study/BSEE-STEM-electives.html).
5. At least two computer engineering electives must be from the E E prefix. See Computer Engineering Electives in the Degree Requirements section above.