

Computer Engineering 2021 Study Plan

Note that CE 2021 study plan is the same as CE 2017 study plan except some differences in the Core Curriculum requirements. Details of the Core Curriculum requirements for CE 2021 study plan are available at this [link](#), for study plans before 2021 visit this [link](#).

First Year (33 credit hours)							
Term	Course #	Course Title	CH	Term	Course #	Course Title	CH
Fall	CMPS 151	Programming Concepts	3	Spring	CMPS 205	Discrete Structures for Computing	3
	GENG 107	Engineering Skills and Ethics	3		CMPS 251	Object-Oriented Programming	4
	CHEM 101	General Chemistry I	3		MATH 102	Calculus II	3
	CHEM 103	Experimental General Chemistry I	1		PHYS 191	General Physics for Engineering I	3
	MATH 101	Calculus I	3		PHYS 192	Experimental General Physics for Engineering I	1
	ENGL 202	English Language I	3		ENGL 203	English Language II	3
Total Credit Hours in Semester			17	Total Credit Hours in Semester			16

Second Year (33 credit hours)							
Term	Course #	Course Title	CH	Term	Course #	Course Title	CH
Fall	CMPE 261	Digital Logic Design	4	Spring	ELEC 351	Signals and Systems	3
	ELEC 201	Electric Circuits	3		ELEC 231	Fundamental of Electronics	3
	MATH 211	Calculus III	3		CMPE 263	Computer Architecture and Organization I	3
	PHYS 193	General Physics for Engineering II	3		CMPS 303	Data Structures	4
	PHYS 194	Experimental General Physics for Engineering II	1		GENG 200	Probability and Statistics for Engineers	3
	ARAB 100	Arabic Language I	3				
Total Credit Hours in Semester			17	Total Credit Hours in Semester			16

Third Year (32 credit hours)							
Term	Course #	Course Title	CH	Term	Course #	Course Title	CH
Fall	CMPE 355	Data Communication and Computer Networks I	4	Spring	CMPE 364	Microprocessor Based Design	4
	CMPE 363	Computer Architecture and Organization II	3		CMPE 457	Data Communication and Computer Networks II	3
	CMPE 370	Computer Engineering Practicum	1		CMPE 476	Digital Signal Processing	4
	CMPS 405	Operating Systems	4		GENG 360	Engineering Economics	3
	MATH 217	Mathematics for Engineers	3		GENG 300	Numerical Methods	3
Total Credit Hours in Semester			15	Total Credit Hours in Semester			17

Fourth Year (30 credit hours)							
Term	Course #	Course Title	CH	Term	Course #	Course Title	CH
Fall	CMPE 498 OR GENG 498	Design Project I [*] OR Multidisciplinary Senior Design I	3	Spring	CMPE 499 OR GENG 499	Design Project II OR Multidisciplinary Senior Design II	3
	CMPE 462	Computer Interfacing	3		DAWA 111	Islamic Culture	3
		Social/Behavioral Sciences package	3		HIST 121	History of Qatar ^{!*}	3
		Major Elective I	3			Major Elective III	3
		Major Elective II	3			Major Elective IV	3
Total Credit Hours in Semester			15	Total Credit Hours in Semester			15

^{*} Must complete 83 CH and CMPE 370 Computer Engineering Practicum

^{!*} For HIST 121 History of Qatar, students following a study plan before 2021 can take any course from Qatar and Gulf History sub-package.

A minimum of 128 credit hours are required to complete the major in Computer Engineering, including:

- 33 credit hours in [Core Curriculum requirements](#):
 - 15 credit hours from the Identity & Communication Package
 - 3 credit hours from the Social/Behavioral Sciences package
 - 3 credit hours from the Natural Science/Mathematics package (MATH 101 Calculus I)
 - 12 credit hours from the Supplemental College / Program core requirements package

- 24 credit hours of College Requirements.
- 59 credit hours in Major Requirements.
- 12 credit hours of Major Electives from the following sub-packages:

<p>Common Electives Sub-package (0-3 CH)</p> <p>Students can take up to 3 credit hours from the following courses:</p> <ul style="list-style-type: none"> • CMPS 312 Mobile Application Development • CMPS 385 Computer Security • CMPE 480 Computer Vision • CMPE 488 Wireless Networks and Applications 	<p>CE Electives Sub-package (9-12 CH)</p> <p>Students must complete a minimum of 9 to 12 CH from the following courses:</p> <ul style="list-style-type: none"> • CMPE 399 Practical Training • CMPE 470 Modern Computer Organization • CMPE 471 Selected Topics in Computer Engineering • CMPE 474 Artificial Neural Networks • CMPE 481 Modeling and Simulation of Digital Systems • CMPE 482 Multimedia Networks • CMPE 483 Introduction to Robotics • CMPE 485 Fundamentals of Digital Image Processing • CMPE 487 Hardware Software Co-Design
--	---