

Bachelor of Science in Computer Engineering (BSCE) Degree Plan



Updated 5/1/15

This road map is a suggested sequence of courses that a student could use to successfully complete this degree. Courses listed fill core curriculum and graduation requirements that apply to all students as well as major requirements just for students in this major. Students need to also be checking their degree progress online on DegreeWorks. Students can take the courses listed in different semesters. However courses that are "prerequisites" need to be taken before the course that they are

Semester	Hrs	Course #	Course Title	Prerequisites/Substitutions
FIRST YEAR				
FALL	3	ENGL 1301	Rhetoric & Composition I	
	4	MATH 2413	Calculus I	Prerequisite: MATH 2412 (Prerequisite for MATH 2412: MATH 1314 or MATH 1414)
	1	CMPE 1101	Intro to Computer Engineering	Prerequisite: MATH 1314 or MATH 1414
Sem Hrs:	3	POLS 2301	US & Texas Government & Politics I	
14	3	UNIV 1301	Learning Framework (If	Based on High School Rank and ACT
SPRING	3	ENGL 1302	Rhetoric & Composition II	Prerequisite: ENGL 1301
	3	CMPE 1370	ENGR Comp. Science I	Prerequisite: CMPE 1101; Must also enroll
	1	CMPE 1170	ENGR CS I Lab	Must also enroll in CMPE 1370
Sem Hrs:	4	MATH 2414	Calculus II	Prerequisite: MATH 2413
15	4	PHYS 2425	Physics for Scientists & Engineers I	2413; Prerequisite or Corequisite: MATH 2414
Summer	3	x3xx	Social & Behavioral Science	See General Education Core
Sem Hrs:	3	HIST 1301	US History I	
6				
SECOND YEAR				
FALL	3	MATH 2346	Math for EE/CE	Prerequisite: CMPE 1370 and MATH 2413
	3	CMPE 2380	Computer Science II	Prerequisite: CMPE 1370
	3	x3xx	Integrative/Experiential	See General Education Core
Sem Hrs:	3	CMPE 2330	Digital Systems I	
13	1	CMPE 2130	Digital Systems I Lab	Corequisite or Prerequisite: CMPE 2330
SPRING	3	CMPE 3333	Algorithms and Data	Prerequisite: CMPE 2380 and MATH 2346
	4	PHYS 2426	Physics for Scientists &	Includes Physics Lab. Prerequisite: PHYS
	3	CMPE 2320	Electrical Circuits I	Prerequisite: MATH 2414; Corequisite or Prerequisite: PHYS 2426
	1	CMPE 2120	Electrical Circuits I Lab	Corequisite or Prerequisite: CMPE 2320
	3 or 4	CMPE 2333 (sw) or CMPE 3437 (hw)	or Microprocessor Systems (hw)	Hardware; Prerequisite for CMPE 2333: CMPE 1370; Prerequisite for CMPE 3437:
Sem Hrs:	3	CHEM 1307	Chemistry for Engineers	or CHEM 1311 General Chemistry
18 or 19	1	CHEM 1107	Chemistry for Engineers Lab	or CHEM 1111 General Chemistry Lab
THIRD YEAR				
FALL	3	PHIL 2326	Professional Ethics:	
	3	MATH 3341	Differential Equations	Prerequisite: MATH 2414
	3	CMPE 3334	Systems Programming	Prerequisite: CMPE 2380 and (CMPE 2333
Sem Hrs:		CMPE 4333 (sw) or CMPE 3322 (hw)	Database Design & Implementation (sw) or Signals & Systems (hw)	Select based on track: Software or Hardware; Prerequisite for CMPE 4333: CMPE 3333; Prerequisite for CMPE 3322: CMPE 2320 and, Corequisite or prerequisite for CMPE 3322: MATH 3341
16	4	CMPE 3403	Electronics for CE	Prerequisite: CMPE 2320 and CMPE 2330
SPRING	3	CMPE 3340	Software Engineering I	Prerequisite: CMPE 2380 and 3 hours in
	3	CMPE 4375	Intro to VLSI Design	Prerequisite: CMPE 2330 and CMPE 3403
	3	CMPE 4335	Computer Architecture	Prerequisite: CMPE 3333 and (CMPE 2333
	3	CMPE 4303	Digital Systems Engineering II	Prerequisite: CMPE 2330
Sem Hrs:		CMPE 3326 or 3328 (sw) or CMPE 3226 (hw)	Object Oriented Programming: Java or C# (sw) or Electrical Engineering Lab I (hw)	Select based on track: Software or Hardware; Prerequisite for CMPE 3326/3328: CMPE 1370; Prerequisite or corequisite for CMPE 3226: CMPE 3403
17 or 18	3	HIST 1302	US History II	
FOURTH YEAR				
FALL	3	MATH 4337 or CMPE 3343	Probability & Statistics I or Prob & Stats for CE	Prerequisite for MATH 4337: MATH 2414; Prerequisite for CMPE 3343: CMPE 3322
	3	CMPE xxxx	Technical Elective ***	
	3	POLS 2302	US & Texas Government &	

Sem Hrs:	3	CMPE 4345 (sw) or CMPE 3331 (hw)	Computer Networks (sw) or Microcontroller & Embedded Systems Lab (hw)	Select based on track: Software or Hardware; Prerequisite for CMPE 4345: CMPE 3333; Prerequisite for CMPE 3331:
15	3	CMPE 4371 (sw) or CMPE 4373 (hw)	Senior Design I (software or hardware)	must pair with CMPE 4372; CMPE 4373 must pair with CMPE 4374
SPRING	3	x3xx	Creative Arts	See General Education Core
	3	CMPE 3341 (sw) or CMPE 4390 (hw)	or Microcommunication Networks (hw)	Hardware; Prerequisite for CMPE 3341: CMPE 3340; Prerequisite for CMPE 4390:
	3	CMPE 4334	Operating Systems	Prerequisite: CMPE 3333 and CMPE 3334
Sem Hrs:	3	CMPE xxxx	Technical Elective ***	
15	3	CMPE 4372 (sw) or CMPE 4374 (hw)	Senior Design II (software or hardware)	Prerequisite for CMPE 4372: CMPE 4371; Prerequisite for CMPE 4374: 4373
Total Hrs		127		
Total Upper-level Hours (3000-4999 level courses) Required:				
Other Graduation Requirements:				
Sem Hrs:	3	Mod Lang	Foreign Language	See Undergraduate Catalog for requirements
6	3	Mod Lang	Foreign Language	See Undergraduate Catalog for requirements
Software Track	CMPE 2333 Computer Org. & Assembly Lang; CMPE 3341 Software Engineering II; CMPE 4345 Comp Networks; CMPE 4333 Database Design; (CMPE 3326 Object Oriented Programming (JAVA) or CMPE 3328 Object Oriented			
Hardware Track	CMPE 3322 Signals and Systems; CMPE 3226 Electrical Engineering I Lab; CMPE 3331 Microcontroller & Embedded Systems Lab; CMPE4390 Communication Networks; CMPE 3437 Microprocessor Systems			
Technical Electives	CMPE 4301 Digital Image Processing; CMPE 4327 Compiler Construction; CMPE 4336 Parallel & Distributed Computing; CMPE 4363 Computer & Network Security; CMPE 4341 Topics in Computer Science; CMPE 4350 Artificial Integgigence; CMPE 4365 Digital Signal Processing; CMPE 4366 Image Processing; CMPE 4367 Fiber Optic Communications; CMPE 4378 Signal Integrity & Electromagnetic Compatability; CMPE 4381 Interactive Systems & User Interface Design; CMPE 4382 Computer Visualization. Additional Technical Electives for			

Bachelor of (enter degree and major)
Road Map



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Semester	Hrs	Course #	Course Title	Prerequisites/Substitutions /Notes
FIRST YEAR				
FALL				
Sem Hrs:				
0		UNIV 1301	Learning Framework (If Needed)	Based on High School Rank & ACT Composite
SPRING				
Sem Hrs:				
0				
Summer				
Sem Hrs:				
0				
SECOND YEAR				
FALL				
Sem Hrs:				
0				
SPRING				
Sem Hrs:				
0				
Summer				
Sem Hrs:				
0				
THIRD YEAR				
FALL				
Sem Hrs:				
0				
SPRING				
Sem Hrs:				
0				
Summer				
Sem Hrs:				
0				
FOURTH YEAR				
FALL				
Sem Hrs:				
0				
SPRING				
Sem Hrs:				
0				
Total Hrs	0	Total Upper-level Hours (3000-4999 level courses) Required: _____		
Other Graduation Requirements:				
Sem Hrs:	3	Mod Lang	Foreign Language	See Undergraduate Catalog for requirements
	6	Mod Lang	Foreign Language	See Undergraduate Catalog for requirements