The University of Texas Rio Grande Valley

Bachelor of Science in Computer Engineering

2017-2018

General Track

		_						
	!	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
		3	Choose 1	Communication (Core)	с	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
		4	MATH 2413	Calculus I (Core)	с	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	See General Education Core for more details.
FALL		1	CMPE 1101	Introduction to Computer Engineering				
		3	POLS 2305	U.S. & Texas Government and Politics I		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
FIRST YEAR		3	Choose 1	Integrative and Experiential Learning (Core)		090		Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics
ST			UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
H.		14	Semester Total		_			
		3	Choose 1	Communication (Core)	с	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305.
(1)		4	MATH 2414	Calculus II	С		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
SPRING		3	CMPE 1370	Engineering Computer Science I			Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170.	
		1	CMPE 1170	Engineering Computer Science I Lab			Co-requisite: CMPE 1370.	
		4	PHYS 2425	Physics for Scientists and Engineers I (Core)			MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	1 hour of lab for Core 090. See General Education Core for more details.
		15	Semester Total					
	!	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
		H 3	Course # MATH 2346	Course Title Mathematics for Electrical and Computer Engineers	Min.	GEC	Prerequisite CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
-				Mathematics for Electrical and Computer	Min.	GEC	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C'	
FALL		3	MATH 2346	Mathematics for Electrical and Computer Engineers	Min.	GEC	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	
		3 3 3 3	MATH 2346 CMPE 2380	Mathematics for Electrical and Computer Engineers Computer Science II	Min.		CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380.
		3 3 3	MATH 2346 CMPE 2380 Choose 1	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core)	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
		3 3 3 3 3 3 1	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2330	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
		3 3 3 3 3 1 16	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
ECOND YEAR FALL		3 3 3 3 3 3 1	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
		3 3 3 3 3 1 16 3 4	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core)		080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
		3 3 3 3 3 3 1 16 3 4 3	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I	Min.	080 060	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
		3 3 3 3 3 1 16 3 4	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core)		080 060	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
		3 3 3 3 3 3 1 16 3 4 3	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I		080 060	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
		3 3 3 3 3 3 3 3 1 16 3 4 3 4 3 1	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320 CMPE 2320	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I Electric Circuits I Lab		080 060 030/ 090	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
		3 3 3 3 3 3 3 3 3 3 3 4 3 4 3 1 3 3 1 3 1	MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320 CMPE 2320 CMPE 2120 POLS 2306	Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I Electric Circuits I Electric Circuits I Lab U.S. & Texas Government and Politics II Chemistry for Engineers Chemistry for Engineers Lab		080 060 030/ 090 070	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305. MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C"	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 1 hour of lab for Core 090. See General Education Core for more details. See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)

	! н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
	3	Choose 1	Language, Philosophy & Culture (Core)		040		Options: Must choose PHIL 1310 or PHIL 2326.
	4	CMPE 3437	Microprocessor Systems			CMPE/ELEE 2330; and CMPE/CSCI 1370 (or CMPE/CSCI 1378).	OR CMPE 2333.
	3	CMPE 3334	Systems Programming			CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437.	
FALL	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
	4	CMPE 3403	Electronics for Computer Engineering			CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better.	
	17	Semester Tota					
	3	CMPE 3331	Microcontroller and Embedded Systems Lab			CMPE 3437 or ELEE 3435.	OR CMPE 3341 OR CMPE 4333.
	3	CMPE 3340	Software Engineering I			3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388).	
۶	3	CMPE 4375	Introduction to VLSI Design			CMPE/ELEE 2330 and CMPE 3403.	
SPRING	3	CMPE 4335	Computer Architecture			CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435.	
S	3	CMPE 4303	Digital Systems Engineering II			CMPE/ELEE 2330 or consent of instructor.	
	2	CMPE 3226	Electrical Engineering I Lab			Credit/registration for CMPE 3403 and MATH 3341.	OR CMPE 3328.
	17	Semester Tota					
	! H	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
	3	MATH 4337	Probability and Statistics I			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
_	3	Choose 1	Technical Elective				See Degree for course options. 5 hours required - may take on (2) credit and one (3) credit technical elective.
FALL	3	CMPE 3322	Signals and Systems			CMPE 2320 or ELEE 2305; and credit/registration for MATH 3341.	OR CMPE 3341 OR CMPE 4333.
	3	CMPE 4390	Communications Networks			CMPE 3437 or ELEE 3435.	OR CMPE 4345.
	3					Consent of instructor and either CSCI 3340 or CMPE 3340.	OR CMPE 4373.
	3	CMPE 4371	Senior Design I Software			Consent of instructor and either CSCI 3340 of CIVIPE 3340.	
		CMPE 4371 Semester Tota				Consent of instructor and either CSCI 3540 of CMPE 3540.	
			Creative Arts (Core)		050		See General Education Core for course options.
	15	Semester Tota			050	CSCI 3340 or CMPE 3340.	
5N	15 3	Semester Tota Choose 1	Creative Arts (Core)		050		
SPRING	15 3 3	Semester Tota Choose 1 CMPE 3341	Creative Arts (Core) Software Engineering II		050	CSCI 3340 or CMPE 3340.	See General Education Core for course options.
	15 3 3 3	Semester Tota Choose 1 CMPE 3341 CMPE 4334 Choose 1	Creative Arts (Core) Software Engineering II Operating Systems		050	CSCI 3340 or CMPE 3340.	See General Education Core for course options. See Degree for course options. 5 hours required - may take on

Graduation Requirements

_	126 TOTAL HOURS (54) TOTAL ADVANCED HOURS	Approved: Revised: Thursday, May 4, 2017			
_	CORE: The 2017-2018 list of core of	courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core www.utrgv.edu/core			
	Symbols Key Critical ('!'): sequence sensitive course. Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average	General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture: 050 - Creative Arts: 060 - American History: 020 - Government/Political	Language Proficiency Requirement: Student is required to demonstrate language proficiency in a		

CR - Credit; P - Passing; S - Satisfactory.

Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 -Interdisciplinary ;090 - Science Labs; 090 - Wellness.

language other than English at the undergraduate level equivalent to a minimum of six credits.

The University of Texas Rio Grande Valley

Bachelor of Science in Computer Engineering

2017-2018

	RigGrande Valley						bachelor of Science in computer Engineering	2017-2018
			il al lo	ic venicy			Hardware Track	
	!	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
		3	Choose 1	Communication (Core)		010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
		4	MATH 2413	Calculus I (Core)	с	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	See General Education Core for more details.
	FALL	1	CMPE 1101	Introduction to Computer Engineering				
	2	3	POLS 2305	U.S. & Texas Government and Politics I		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
FIRST YEAR		3	Choose 1	Integrative and Experiential Learning (Core)		090		Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics
ST			UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
E		14	Semester Total					
		3	Choose 1	Communication (Core)		010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305.
	5	4	MATH 2414	Calculus II	С		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
	SPRING	3	CMPE 1370	Engineering Computer Science I			Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170.	
		1	CMPE 1170	Engineering Computer Science I Lab			Co-requisite: CMPE 1370.	
		4	PHYS 2425	Physics for Scientists and Engineers I (Core)			MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	1 hour of lab for Core 090. See General Education Core for more details.
		15	Semester Total					
		Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
	T				Min.	GEC	Prerequisite CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
	_	H	Course #	Course Title Mathematics for Electrical and Computer	Min.	GEC	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C'	
	FALL	H 3	Course # MATH 2346	Course Title Mathematics for Electrical and Computer Engineers	Min.	GEC	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of	
	FALL	H 3 3 3 3 3	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core)	Min.		CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of	OR CSCI 2380.
	FALL	H 3 3 3 3 3 3 3	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
	FALL	H 3 3 3 3 3 3 1	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core)	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
	FALL	H 3 3 3 3 3 3 1 1 16	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab	Min.	080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details.
SECOND YEAR	FALL	H 3 3 3 3 3 3 1	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I	Min.	080 060 030/	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
	FALL	H 3 3 3 3 3 3 1 1 16 3 4	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core)		080	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
SECOND YEAR		H 3 3 3 3 3 3 3 1 1 6 3 4 3 3	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I	Min.	080 060 030/	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
SECOND YEAR	SPRING	H 3 3 3 3 3 3 1 1 16 3 4	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core)		080 060 030/	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
SECOND YEAR		H 3 3 3 3 3 3 1 1 6 3 4 3 1 1	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2330 CMPE 2330 Semester Total CMPE 3333 PHYS 2426 CMPE 2320 CMPE 2120	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I Electric Circuits I Lab		080 060 030/ 090	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426.	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
SECOND YEAR		H 3 3 3 3 3 3 3 3 1 1 6 3 3 4 4 3 1 1 3 3	Course # MATH 2346 CMPE 2380 Choose 1 Choose 1 CMPE 2330 CMPE 2130 Semester Total CMPE 3333 PHYS 2426 CMPE 2320 CMPE 2320 CMPE 2120 POLS 2306	Course Title Mathematics for Electrical and Computer Engineers Computer Science II Social and Behavioral Sciences (Core) American History (Core) Digital Systems Engineering I Digital Systems Engineering I Lab Algorithms and Data Structures Physics for Scientists and Engineers II (Core) Electric Circuits I Electric Circuits I Lab U.S. & Texas Government and Politics II		080 060 030/ 090 070	CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. Credit/registration for CMPE/ELEE 2330. CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or PHYS 2425. MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305. MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C"	OR CSCI 2380. See General Education Core for course options. See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 1 hour of lab for Core 090. See General Education Core for more details. See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)

	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
	3	Choose 1	Language, Philosophy & Culture (Core)		040		Options: Must choose PHIL 1310 or PHIL 2326.
	4	CMPE 3437	Microprocessor Systems			CMPE/ELEE 2330; and CMPE/CSCI 1370 (or CMPE/CSCI 1378).	
	3	CMPE 3334	Systems Programming			CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437.	
FALL	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
	4	CMPE 3403	Electronics for Computer Engineering			CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better.	
	17	Semester Tota	l				
	3	CMPE 3331	Microcontroller and Embedded Systems Lab			CMPE 3437 or ELEE 3435.	
	3	CMPE 3340	Software Engineering I			3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388).	
ğ	3	CMPE 4375	Introduction to VLSI Design			CMPE/ELEE 2330 and CMPE 3403.	
SPRING	3	CMPE 4335	Computer Architecture			CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435.	
SI	3	CMPE 4303	Digital Systems Engineering II			CMPE/ELEE 2330 or consent of instructor.	
	2	CMPE 3226	Electrical Engineering I Lab			Credit/registration for CMPE 3403 and MATH 3341.	
	17	Semester Tota					
	Н	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
	3	MATH 4337	Probability and Statistics I			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
_	3	Choose 1	Technical Elective				See Degree for course options. 5 hours required - may take o (2) credit and one (3) credit technical elective.
FALL	3	CMPE 3322	Signals and Systems			CMPE 2320 or ELEE 2305; and credit/registration for MATH 3341.	
	3	CMPE 4390	Communications Networks			CMPE 3437 or ELEE 3435.	
	3	CMPE 4371	Senior Design I Software			Consent of instructor and either CSCI 3340 or CMPE 3340.	OR CMPE 4373
	15	Semester Tota	1				
	3	Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
	3						
	3	CMPE 3341	Software Engineering II			CSCI 3340 or CMPE 3340.	
DV			Software Engineering II Operating Systems			CSCI 3340 or CMPE 3340. CSCI/CMPE 3333 and CSCI/CMPE 3334 or consent of the instructor.	
SPRING	3	CMPE 3341					See Degree for course options. 5 hours required - may take o (2) credit and one (3) credit technical elective.
SPRING	3	CMPE 3341 CMPE 4334 Choose 1	Operating Systems				

Graduation Requirements

CORE: The 2017-2018 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core

www.utrgv.edu/core

126 TOTAL HOURS (54) TOTAL ADVANCED HOURS Approved: Revised: Thursday, May 4, 2017

Symbols Key

Critical ('!'): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 -

Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 -Interdisciplinary ;090 - Science Labs; 090 - Wellness.

Language Proficiency Requirement: Student is

required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

F	he	Un)(ive Gra	rsity of ande	Texas Valley			Bachelor of Science in Computer Engineering Software Track	2017-2018
		_	I A	Course #	Course Title	Min	GEC	Prerequisite	Additional Notes
		3		Choose 1	Communication (Core)	C		For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
		4		MATH 2413	Calculus I (Core)	с	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	See General Education Core for more details.
	FALL	1		CMPE 1101	Introduction to Computer Engineering				
	ъ	3		POLS 2305	U.S. & Texas Government and Politics I		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
YEAR		3		Choose 1	Integrative and Experiential Learning (Core)		090		Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics
ST	_			UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
E		14	4 (0)	Semester Total	1				
		3		Choose 1	Communication (Core)	с	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305.
	(B	4		MATH 2414	Calculus II	С		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
	SPRING	3		CMPE 1370	Engineering Computer Science I			Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170.	
		1		CMPE 1170	Engineering Computer Science I Lab			Co-requisite: CMPE 1370.	
		4		PHYS 2425	Physics for Scientists and Engineers I (Core)			MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	1 hour of lab for Core 090. See General Education Core for more details.
				Semester Total		_	_		
		! H	A	Course #	Course Title	Min.	GEC	Prerequisite	Additional Notes
		3		MATH 2346	Mathematics for Electrical and Computer Engineers			CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
		3		CMPE 2380	Computer Science II			CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	OR CSCI 2380.
	FALL	3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options.
R		3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327
YEA		3		CMPE 2330	Digital Systems Engineering I				
Ŋ		1		CMPE 2130	Digital Systems Engineering I Lab			Credit/registration for CMPE/ELEE 2330.	
ő				Semester Total					
SEG	_	3	(3)	CMPE 3333	Algorithms and Data Structures			CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or	
		4		PHYS 2426	Physics for Scientists and Engineers II (Core)		030/ 090	PHYS 2425.	1 hour of lab for Core 090. See General Education Core for more details.
	U	3			Electric Circuits I	С		MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426.	
	RIN	1			Electric Circuits I Lab			Credit/registration for CMPE 2320 or ELEE 2305.	
	SP	3		CMPE 2333	Computer Organization and Assembly Language			CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378).	
		3		CHEM 1307	Chemistry for Engineers			MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C" or higher."	OR CHEM 1311.
		1		CHEM 1107	Chemistry for Engineers Lab		090	Credit/registration in CHEM 1307.	OR CHEM 1111. See General Education Core for more details.
		17	7 (3)	Semester Total					

	!	H.	А	Course #	Course Title	Min. GE	C Prerequisite	Additional Notes
		3		Choose 1	Language, Philosophy & Culture (Core)	04	D	Options: Must choose PHIL 1310 or PHIL 2326.
	3	3 ((3)	MATH 3341	Differential Equations		MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better.	MATH 2346 for ELEE and CMPE.
_	3	3 ((3)	CMPE 3334	Systems Programming		CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437.	
FALL	3	3 ((3)	CMPE 4333	Database Design and Implementation		CSCI 3333 or CMPE 3333.	
	4	4 ((4)	CMPE 3403	Electronics for Computer Engineering		CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better.	
YEAR	1	L6 (1	13) 9	Semester Total				
		3		Choose 1	American History (Core)	06	0	See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328.
	3	3 ((3)	CMPE 3340	Software Engineering I		3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388).	
N.	3	3 ((3)	CMPE 4375	Introduction to VLSI Design		CMPE/ELEE 2330 and CMPE 3403.	
SPRING	3	3 ((3)	CMPE 4335	Computer Architecture		CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435.	
	3	3 ((3)	CMPE 4303	Digital Systems Engineering II		CMPE/ELEE 2330 or consent of instructor.	
	3	3 ((3)	CMPE 3326	Object Oriented Programming in JAVA		CSCI 1380 (or CSCI 1387), or CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor.	Can also take CMPE 3328: Objective-Oriented Programming in C#
	1	L8 (1	15) 9	Semester Total				
	!	H,	А	Course #	Course Title	Min. GE	C Prerequisite	Additional Notes
	3	3 ((3)	MATH 4337	Probability and Statistics I		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	3	3 ((3)	Choose 1	Technical Elective			See Degree for course options. 5 hours required - may take one (2) credit and one (3) credit technical elective.
FALL	3	3		POLS 2306	U.S. & Texas Government and Politics II	07	0	See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
YEA	3	3 ((3)	CMPE 4345	Computer Networks		CSCI 3333 or CMPE 3333.	
	3	3 ((3)	CMPE 4371	Senior Design I Software		Consent of instructor and either CSCI 3340 or CMPE 3340.	OR CMPE 4373
OURTH	1	L5 (1	12) 9	Semester Total				
F0L	3	3		Choose 1	Creative Arts (Core)	05	0	See General Education Core for course options.
	3	3 ((3)	CMPE 3341	Software Engineering II		CSCI 3340 or CMPE 3340.	
ş	3	3 ((3)	CMPE 4334	Operating Systems		CSCI/CMPE 3333 and CSCI/CMPE 3334 or consent of the instructor.	
SPRING	3	3 ((3)	Choose 1	Technical Elective			See Degree for course options. 5 hours required - may take one (2) credit and one (3) credit technical elective.
	3	3 ((3)	CMPE 4372	Senior Design II Software		CMPE 4371 and consent of instructor.	OR CMPE 4374
	1	L5 (1	<u>12) s</u>	Semester Total				

CORE: The 2017-2018 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core

		www.utrgv.edu/core	
126	TOTAL HOURS TOTAL	Approved	: 5.4/2017
(54)	IOTAL	newsee	
Symbols Key			
Critical ('!'): se	equence sensitive course.	General Education Core (GEC) Sections: 010 - Communication; 020 -	Language Proficiency Requirement: Student is
Minimum Gra	de: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR -	Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political	required to demonstrate language proficiency in a
Credit; P - Pas	sing; S - Satisfactory.	Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 -	language other than English at the undergraduate level
		Interdisciplinary ;090 - Science Labs; 090 - Wellness.	equivalent to a minimum of six credits.