

**Bachelor of Science in Computer Engineering (BSCE)  
Computer Engineering**

The 2026-2027 list of core courses can be found in the 2026-2027 Undergraduate Catalog: [www.utrgv.edu/catalog](http://www.utrgv.edu/catalog) > See 'Bachelors Degree Program Regulations'

Symbols Key										
Campus: B - Offered in Brownsville; E - Offered in Edinburg; O - Offered Online; T - Travel Required										
Bolted Course Number *: Program Admission Requirement										
Min Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.										
Core: 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;										
Core: 090 - Applied Communication and Literacies; Humanities; Leadership; Science Labs; Interdisciplinary; Technologies; Language Diversity & Writing										
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
1	Fall	3	B/E/O	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See Core Curriculum for details. Option: ENGL 1301	
1	Fall	4	B/E/O	MATH 2413	Calculus I	C	020	MATH 2412 with a grade of "C" or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.		
1	Fall	1	B/E	EECE 1101	Introduction to Electrical and Computer Engineering	C				
1	Fall	3	B/E/O	POLS 2305	U.S. Federal Govt & Politics		070			
1	Fall	3	B/E/O	Choose 1	Integrative and Experiential Learning		090		Complete three credit hours from the approved area, except PHIL 2326, in addition to three science labs.	
1	Fall		B/E/O	UNIV	1301 Foundations of Academic and Career Success 1101 Academic and Career Success 1001/1300 Living and Working by Design				As required, based on a number of factors such as credit hours earned, TSI status, high school rank, major declaration, etc.	
1	Fall	14	<b>Semester Total Hours</b>							
1	Spring	3	B/E/O	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See Core Curriculum for details. Options: ENGL 1302 or ENGL 1305	
1	Spring	4	B/E/O	MATH 2414	Calculus II	C		MATH 2413 with a grade of "C" or better.		
1	Spring	4	B/E	CSCI 1470	Computer Science I	C		Grade "C" or better in any of the following: MATH 1314, MATH 1414 or placement in a higher level Math courses (MATH 2412, MATH 2413) and credit for or concurrent enrollment in CSCI 1101 or CMPE 1101 or EECE 1101		
1	Spring	4	B/E/O	PHYS 2425	Physics for Scientists and Engineers I		030/ 090	MATH 2413.	1 hour (lab) applied to Core 090. See Core Curriculum for details.	
1	Spring	15	<b>Semester Total Hours</b>							
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
2	Fall	3	B/E/O	MATH 2346	Mathematics for Electrical and Computer Engineers	C		CSCI 1381 or CMPE 1170/1370 (or CMPE 1378/1178) or CSCI 1470 with a grade of "C" or better, and MATH 2413 (or MATH 2487) with a grade of "C" or better.		
2	Fall	1	B/E/O	EECE 2146	Practicum of Mathematics for Electrical and Computer Engineering	C		Grade of C or better or registration in Math 2346.		
2	Fall	3	B/E	CSCI 2380	Computer Science II	C		Grade of C or better in: CSCI 1470 or CSCI 1390 or [ (CSCI 1370 or CMPE 1370) and (CSCI 1170 or CMPE 1170) ].		
2	Fall	3	B/E/O	Choose 1	Social and Behavioral Sciences		080		See Core Curriculum for course options.	
2	Fall	3	B/E/O	Choose 1	American History		060		See Core Curriculum. Options: HIST 1301 or HIST 2327	
2	Fall	3	B/E	EECE 2306	Digital Systems Engineering I	C		Grade of C or better or registration in CMPE 1101 or ELEE 1101 or CSCI 1101 or EECE 1101.		
2	Fall	1	B/E	EECE 2106	Digital Systems Engineering I Lab	C		Grade of C or better or registration in [CMPE 2330 or ELEE 2330 or EECE 2306].		
2	Fall	17	<b>Semester Total Hours</b>							
2	Spring	3	B/E	CSCI 3333	Algorithms and Data Structures	C		Grade of C or better in: [CSCI 3310 or MATH 2346 or MATH 2305] and [CSCI 2380 or CMPE 2380].		
2	Spring	4	B/E/O	PHYS 2426	Physics for Scientists and Engineers II		030/ 090	PHYS 2425 and MATH 2414.	1 hour (lab) applied to Core 090. See Core Curriculum for details.	
2	Spring	3	B/E	EECE 2305	Electric Circuits I	C		Grade of C or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and a grade of C or better or registration in PHYS 2426.		
2	Spring	1	B/E	EECE 2105	Electric Circuits I Lab	C		Grade of C or better or registration in [CMPE 2320 or ELEE 2305 or EECE 2305].		
2	Spring	3	B/E/O	POLS 2306	Texas Government & Politics		070			
2	Spring	3	B/E	CHEM 1309	Chemistry for Engineers	C		Minimum grade of C is required in one of the following courses: MATH 1314, MATH 1414, MATH 2412, MATH 2413 or MATH 2487.		
2	Spring	1	B/E	CHEM 1109	Chemistry for Engineers Lab		090	Credit/registration in CHEM 1309	1 hour (lab) applied to Core 090.	
2	Spring	18	<b>Semester Total Hours</b>							

Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
3	Fall	3	B/E	CSCI 3340	Software Engineering I	C		Grade of C or better in: [3 advanced hours in CSCI or CMPE or EECE] and [CSCI 2380 or CMPE 2380].		
3	Fall	4	B/E	EECE 3435	Microprocessor Systems	C		Grade of 'C' or better in [ELEE 2330 or CMPE 2330 or EECE 2306] and [CSCI 1370 or CSCI 1380 or CSCI 1387 or CSCI 1470].		
3	Fall	3	B/E/O	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.		
3	Fall	3	B/E	CSCI 3334	Systems Programming	C		Grade of C or better in: [CSCI 2380 or CMPE 2380] and [CSCI 2333 or CMPE 2333 or ELEE 3435 or CMPE 3437 or EECE 3435].		
3	Fall	3	B/E	EECE 3301	Electronics I	C		Grade of C or better in [CMPE 2320 or ELEE 2305 or EECE 2305] and [CMPE 2120 or ELEE 2105 or EECE 2105].		
3	Fall	16	<b>Semester Total Hours</b>							
3	Spring	3	B/E	EECE 3331	Microcontroller and Embedded Systems Lab	C		Grade of C or better in [CMPE 3437 or ELEE 3435 or EECE 3435] or CSCI 2333 or CMPE 2333.		
3	Spring	3	B/E/O	PHIL 2326	Ethics, Technology, and Society		040			
3	Spring	3	B/E	Choose 1	Prescribed Elective from Approved List	C		Prerequisites differ between course options	EECE 3225, EECE 3321, EECE 4375, EECE 4390, [only one from CSCI 3326, CSCI 3328, or CSCI 3329], CSCI 3341, or CSCI 4333	
3	Spring	3	B/E	Choose 1	Prescribed Elective from Approved List	C		Prerequisites differ between course options	EECE 3225, EECE 3321, EECE 4375, EECE 4390, [only one from CSCI 3326, CSCI 3328, or CSCI 3329], CSCI 3341, or CSCI 4333	
3	Spring	3	B/E	EECE 3340	Probability and Statistics for Electrical and Computer Engineers	C		Grade of C or better in MATH 2414.		
3	Spring	3	B/E	EECE 4303	Digital Systems Engineering II	C		Grade of C or better in [ELEE 2330 or CMPE 2330 or EECE 2306].		
3	Spring	18	<b>Semester Total Hours</b>							
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
4	Fall	3	B/E	EECE 4380	Computer Architecture	C		Grade of C or better in [ELEE 3435 or CMPE 3437 or EECE 3435 or CSCI 2333 or CMPE 2333] and [ELEE 4303 or EECE 4303 or CMPE 4303].		
4	Fall	3	B/E/O	Choose 1	American History		060		See Core Curriculum. Options: HIST 1302 or HIST 2328	
4	Fall	3	B/E	Choose 1	Prescribed Elective - Advanced EECE or CSCI	C			Any EECE/CSCI 4000-level course not used to satisfy any other requirement and not equivalent or similar to any other course satisfying any requirement. Must be approved by faculty adviser.	
4	Fall	3	B/E	Choose 1	Prescribed Elective from Approved List	C		Prerequisites differ between course options	EECE 3225, EECE 3321, EECE 4375, EECE 4390, [only one from CSCI 3326, CSCI 3328, or CSCI 3329], CSCI 3341, or CSCI 4333	
4	Fall	3	B/E	EECE 4361	Senior Design I	C		Grade of C or better in [ELEE 3435 or CMPE 3437 or EECE 3435 or CSCI 2333 or CMPE 2333] and [CMPE 3403 or ELEE 3301 or EECE 3301] and [STAT 3337 or CMPE 3343 or ELEE 3340 or EECE 3340 or EECE 3230 or ELEE 3230] and [CMPE 3340 or CSCI 3340 or EECE 3230 or ELEE 3230] and [EECE 3301 or EECE 3301 or EECE 3301].		
4	Fall	15	<b>Semester Total Hours</b>							
4	Spring	3	B/E/O	Choose 1	Creative Arts		050		See Core Curriculum for course options.	
4	Spring	2	B/E	Choose 1	Prescribed Elective from Approved List	C		Prerequisites differ between course options	EECE 3225, EECE 3321, EECE 4375, EECE 4390, [only one from CSCI 3326, CSCI 3328, or CSCI 3329], CSCI 3341, or CSCI 4333	
4	Spring	3	B/E	CSCI 4334	Operating Systems	C		Grade of C or better in: [CSCI 2380 or CMPE 2380] and [CSCI 2333 or CMPE 2333 or ELEE 3435 or CMPE 3437 or EECE 3435].		
4	Spring	3	B/E/O	Choose 1	Prescribed Elective - Advanced EECE or CSCI	C			Any EECE/CSCI 4000-level course not used to satisfy any other requirement and not equivalent or similar to any other course satisfying any requirement. Must be approved by faculty adviser.	
4	Spring	3	B/E	EECE 4362	Senior Design II	C		Grade of C or better in [EECE 4361 or ELEE 4361] or CMPE 4371 or CMPE 4373.		
4	Spring	14	<b>Semester Total Hours</b>							

127 TOTAL HOURS  
(42) Advanced minimum credit hours