

		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	
FIRST YEAR	FALL	3		Choose 1	Communication (Core)	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 General Education Core for more details Option: ENGL 1301	
		4		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.		
		3		CSCI 1380	Computer Science I (Core)	C	090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.		
			1		ELEE 1101	Introduction to Electrical Engineering	C			
			3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options.
					UNIV	1301 Learning Framework 1101 Academic and Career Success 1001 Living and Working by Design				As required, based on credit hours earned, TSI status, High School rank, major declaration.
	14 Semester Total Hours									
SPRING		4		MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.		
		3		MATH 2346	Mathematics for Electrical and Computer Engineers	C		CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 with a grade of 'C' or better.		
		4		PHYS 2425	Physics for Scientists and Engineers I	C	030	MATH 2413 and concurrent enrollment in MATH 2414.	1 hour of lab to count for 090 Core	
		3		ELEE 2330	Digital Systems Engineering I	C		Credit/registration in CMPE 1101, ELEE 1101, or CSCI 1101.		
		1		ELEE 2130	Digital Systems Engineering I Lab	C		Credit/registration in ELEE 2330.		
15 Semester Total Hours										
SUMMER		3		Choose 1	Communication (Core)	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 General Education Core for more details Options: ENGL 1302 or ENGL 1305	
		3		Choose 1	Creative Arts (Core)		050		See General Education Core Curriculum	
6 Semester Total Hours										
		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	
SECOND YEAR	FALL	3		MATH 3341	Differential Equations	C		MATH 2414 with a grade of 'C' or better.		
		4		PHYS 2426	Physics for Scientists and Engineers II	C	030	PHYS 2425.	1 hour of lab to count for 090 Core	
		3		ELEE 2305	Electric Circuits I	C		Grade of C or better in: MATH 2414 (or MATH 2488) and credit/registration in PHYS 2426.		
		1		ELEE 2105	Electric Circuits I Lab	C		Grade of C or better in: Credit/registration in ELEE 2305.		
		3		ELEE 2319	Numerical Computation and Data Visualization	C		Grade of C or better in: CSCI 1380 (or CSCI 1387) and credit/registration in MATH 2346.		
	14 Semester Total Hours									
	SPRING		4		MATH 2415	Calculus III	C		MATH 2414 with a grade of 'C' or better.	
		3		CHEM 1311 or CHEM 1309	Statics or General Chemistry I or Chemistry for Engineers			MATH 1314, MATH 1414, MATH 2412, MATH 2413 or MATH 2487 with a grade of "C" or higher.		
		3		ELEE 3321	Signals and Systems	C		Grade of C or better in: ELEE 2305 and credit/registration in MATH 3341.		
		3		ELEE 3301	Electronics I	C		Grade of C or better in: [ELEE 2105 or CMPE 2120], ELEE 2305 and credit/registration in ELEE 3321.		
		1		ELEE 3101	Electronics I Lab	C		Grade of C or better in: Credit/registration in ELEE 3301.		
	3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST/MASC 2327		
17 Semester Total Hours										

		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL		2	ELEE 3225	Electrical Engineering Lab I	C		Grade of C or better in: [ELEE 2330 or CMPE 2330] and [ELEE 2130 or CMPE 2130] and credit/registration in [ELEE 3321 or CMPE 3322] and [CMPE 3403 or (both ELEE 3301 and ELEE 3101)].	
			3	ELEE 3315	Electromagnetics Engineering			Grade of C or better in: ELEE 2305, MATH 2415 and PHYS 2426.	
			4	ELEE 3435	Microprocessor Systems	C		Grade of C or better in: ELEE 2330 and CSCI 1380 (or CSCI 1387).	
			3	ELEE 4303	Digital Systems Engineering II			Grade of C or better in: ELEE 2330.	
			3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST/MASC 2328
15 Semester Total Hours									
THIRD YEAR	SPRING		2	ELEE 3230	Electrical Engineering II Lab	C		ELEE 2319 and ELEE 3225 with a minimum grade of C.	
			3	ELEE 3340	Probability and Statistics for Electrical Engineers	C		Grade of C or better in: MATH 2414.	
			3	ELEE 3302	Electronics II			Grade of C or better in: ELEE 3301 and ELEE 3321.	
			3	ELEE X3XX	Prescribed Elective				Must be a 3000 or 4000 level ELEE Technical Elective Course.
			3	POLS 2305	U.S. Federal Govt & Politics		070		
14 Semester Total Hours									
		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	FALL		3	ELEE 4321	Automatic Control Systems			Grade of C or better in: ELEE 3321 and MATH 3341.	
			3	ELEE 4328	Solid State Electronic Devices			Grade of C or better in: ELEE 3301.	
			3	ELEE 4351	Communication Theory			Grade of C or better in: ELEE 3340 and ELEE 3321.	
			3	ELEE 4361	Senior Design I	C		Grade of C or better in: ELEE 3230 ELEE 3435, and credit/registration in at least 9 credits of 4000 level ELEE coursework.	
			3	PHIL 2326	Ethics, Technology, and Society (Core)		040		
15 Semester Total Hours									
FOURTH YEAR	SPRING		3	ELEE X3XX	Prescribed Elective				Must be a 3000 or 4000 level ELEE Technical Elective Course.
			3	ELEE X3XX	Prescribed Elective				Must be a 3000 or 4000 level ELEE Technical Elective Course.
			3	ELEE 4362	Senior Design II			ELEE 4361 with a minimum grade of C.	
			3	POLS 2306	Texas Government & Politics		070		
			3	Choose 1	Integrative/Experiential Learning Option (Core)		090		Complete three credit hours from the approved core curriculum, except PHIL 2326, in addition to CSCI 1380. See degree plan.
15 Semester Total Hours									

Major Graduation Requirements

Any course in the degree plan that is a prerequisite or corequisite for an electrical engineering course must be passed with a grade of 'C' or higher. This is a graduation requirement independent of whether the student passes subsequent courses. The courses include: ELEE 2330, ELEE 2130, CSCI 1380, MATH 2413, ELEE 1101, ELEE 3435, ELEE 2319, MATH 2346, MATH 2414, PHYS 2425, ELEE 3340, MATH 3341, MATH 2415, ELEE 2305, ELEE 2105, PHYS 2426, ELEE 3321, ELEE 3225, ELEE 3301, ELEE 3101, ELEE 3230, ELEE 4361.

CORE: The 2021-2022 list of core courses can be found in the 2021-2022 Undergraduate Catalog: www.utrgv.edu/catalog > See 'Core Curriculum'

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 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 - Science Labs; 090 - Interdisciplinary ; 090 - Technologies; 090 - Language Diversity & Writing.

125 TOTAL HOURS (42 advanced minimum credit hours)

Approved: Friday, March 12, 2021

Revised: Monday, March 1, 2021