The University of Texas Rio Grande Valley

FIRST YEAR

FALL

H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
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 Core Curriculum for 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.	
1	EECE 1101	Introduction to Electrical and Computer Engineering	C			
3	POLS 2305	U.S. Federal Govt & Politics		070		
3	Choose 1	Integrative and Experiential Learning (Core)		090		Complete three credit hours from the approved area, except PHIL 2326, in addition to three science labs.
	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

H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
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 Core Curriculum for details. Options: ENGL 1302 or ENGL 1305
4	MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.	
4	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 course (MATH 2412, MATH 2413) and credit for or concurrent enrollment in CSCI 1101 or EECE 1101	
4	PHYS 2425	Physics for Scientists and Engineers I		030	MATH 2413.	1 hour (lab) applied to Core 090. See Core Curriculum for details.

15 Semester Total Hours

SECOND YEAR

FALL

H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
3	MATH 2346	Mathematics for Electrical and Computer Engineers	C		CSCI 1470 (or CSCI 1370/1170 or CMPE 1370/1170) with a grade of C or better and MATH 2413 with a grade of C or better.	
1	EECE 2146	Practicum of Mathematics for Electrical and Computer Engineering	C		Credit or registration for Math 2346.	
3	CSCI 2380	Computer Science II	C		Grade of C or better in: CSCI 1470 or CSCI 1390 or [CSCI 1370 and 1170] or [CMPE 1370 and 1170].	
3	Choose 1	Social and Behavioral Sciences (Core)		080		See Core Curriculum for course options.
3	Choose 1	American History (Core)		060		See Core Curriculum. Options: HIST 1301 or HIST 2327
3	EECE 2306	Digital Systems Engineering I	C		Credit/registration in CMPE 1101 or ELEE 1101 or CSCI 1101 or EECE 1101.	
1	EECE 2106	Digital Systems Engineering I Lab	C		Credit/registration for CMPE 2330 or ELEE 2330 or EECE 2306.	

17 Semester Total Hours

SPRING

H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
3	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].	
4	PHYS 2426	Physics for Scientists and Engineers II		030	PHYS 2425 and MATH 2414.	1 hour (lab) applied to Core 090. See Core Curriculum for details.
3	EECE 2305	Electric Circuits I	C		Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426.	
1	EECE 2105	Electric Circuits I Lab	C		Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305.	
3	POLS 2306	Texas Government & Politics		070		
3	CHEM 1309	Chemistry for Engineers	C		MATH 1314, MATH 1414, MATH 2412 or MATH 2413 with a grade of "C" or higher	
1	CHEM 1109	Chemistry for Engineers Lab		090	Credit/registration in CHEM 1309	1 hour (lab) applied to Core 090.

18 Semester Total Hours

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR — FALL							
	3	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].	
	4	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	MATH 3341	Differential Equations	C		MATH 2414 with a grade of 'C' or better	
	3	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	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]	
	16	**Semester Total Hours**					
THIRD YEAR — SPRING							
	3	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	PHIL 2326	Ethics, Technology, and Society		040		
	3	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	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	EECE 3340	Probability and Statistics for Electrical and Computer Engineers	C		Grade of 'C' or better in MATH 2414.	
	3	EECE 4303	Digital Systems Engineering II	C		Grade of 'C' or better in ELEE 2330 or CMPE 2330 or EECE 2306.	
	18	**Semester Total Hours**					

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR — FALL							
	3	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].	
	3	Choose 1	American History (Core)		060		See Core Curriculum. Options: HIST 1302 or HIST 2328
	3	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.
	3	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	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] and [CMPE 3340 or CSCI 3340 or EECE 3230] and [having finished or be enrolled in at least 6 credits of 4000-level EECE coursework].	
	15	**Semester Total Hours**					
FOURTH YEAR — SPRING							
	3	Choose 1	Creative Arts (Core)		050		See Core Curriculum for course options.
	2	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	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].	
	3	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.
	3	EECE 4362	Senior Design II	C		Grade of 'C' or better in EECE 4361 or ELEE 4361 or CMPE 4371 or CMPE 4373.	
	14	**Semester Total Hours**					

Major Graduation Requirements

1. All students must complete a two-semester capstone senior design project, represented by EECE 4361 and EECE 4362 in the degree plan. This project must be of substantial scope and complexity, demonstrate competencies from across the curriculum (in particular, the ability to design computer software, electronic hardware and integrate the two in systems) and address the social, economic and ethical consequences of the project.

2. All courses in the major requirements including the concentration must be completed with a grade of 'C' or better

CORE: The 2022-2023 list of core courses can be found in the 2022-2023 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.

127 TOTAL HOURS (42 advanced minimum credit hours)

Approved: Monday, October 31, 2022
Revised: Thursday, October 20, 2022