G	ra	sity of Texas nde Valley	r			Bachelor of Science in Electrical Engineering Electrical Engineering	2023-2024
		Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Communication (Core)	С	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 13
	4	MATH 2413	Calculus I	С	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	
	3	CSCI 1381	Introduction to Programming in C++ (Core)	С	090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
	1	EECE 1101	Introduction to Electrical and Computer Engineering	С			
	3	Choose 1	Social and Behavioral Sciences (Core)		080		See Core Curriculum 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 sta High School rank, major declaration.
		Semester Total Ho					
	4	MATH 2414	Calculus II	С		MATH 2413 with a grade of 'C' or better.	
	3	MATH 2346	Mathematics for Electrical and Computer Engineers	С		CSCI 1381 or CMPE 1170/1370 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	С	030	MATH 2413.	
	3	EECE 2306	Digital Systems Engineering I	с		Credit/registration in CMPE 1101 or ELEE 1101 or CSCI 1101 or EECE 1101.	
	1	EECE 2106	Digital Systems Engineering I Lab	С		Credit/registration for CMPE 2330 or ELEE 2330 or EECE 2306.	
	15	Semester Total Ho	urs				
	3	Choose 1	Communication (Core)	с	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 1 ENGL 1305
	3	Choose 1	Creative Arts (Core)		050		See Core Curriculum for course options.
		Semester Total Ho		Min			
1	н	Course #	Course Title	Grade	GEC	Prerequisite	Additional Notes
	0	111 TIL 00 11		-		MATH 2414 with a grade of 'C' or better.	
	3	MATH 3341	Differential Equations	С			
	3	MATH 3341 PHYS 2426	Differential Equations Physics for Scientists and Engineers II	C C	030	PHYS 2425 and MATH 2414.	
-					030		
	4	PHYS 2426	Physics for Scientists and Engineers II	С	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or	
	4 3	PHYS 2426 EECE 2305	Physics for Scientists and Engineers II Electric Circuits I	c c	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426.	
	4 3 1 3	PHYS 2426 EECE 2305 EECE 2105	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization	C C C	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305.	
	4 3 1 3	PHYS 2426 EECE 2305 EECE 2105 EECE 2319	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization	C C C	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305.	
	4 3 1 3 14	PHYS 2426 EECE 2305 EECE 2105 EECE 2319 Semester Total Ho	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization urs	с с с с	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305. CSCI 1381 and credit/registration in MATH 2346.	
	4 3 1 3 14 4	PHYS 2426 EECE 2305 EECE 2105 EECE 2319 Semester Total Ho MATH 2415 CHEM 1309 or	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization urs Calculus III	с с с с	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or EECE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305. CSCI 1381 and credit/registration in MATH 2346. MATH 2414 with a grade of 'C' or better. MATH 1314, MATH 1414, MATH 2412, MATH 2413 or MATH 2487	
	4 3 1 3 14 4 3	PHYS 2426 EECE 2305 EECE 2105 EECE 2319 Semester Total Ho MATH 2415 CHEM 1309 or CHEM 1301	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization urs Calculus III Chemistry for Engineers or General Chemistry I	C C C C C C	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or ELEE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305. CSCI 1381 and credit/registration in MATH 2346. MATH 2414 with a grade of 'C' or better. MATH 1314, MATH 1414, MATH 2412, MATH 2413 or MATH 2487 with a grade of 'C' or bigher. Grade of 'C' or better in [CMPE 2320 or ELEE 2305 or EECE 2305] and credit/registration for MATH 341. Grade of C or better in [CMPE 2320 or ELEE 2305 or EECE 2305] and CCMPE 2320 or ELEE 2305 or EECE 2305] and CMATH 341.	
	4 3 1 3 14 4 3 3 3	PHYS 2426 EECE 2305 EECE 2105 EECE 2319 Semester Total Ho MATH 2415 CHEM 1309 or CHEM 1311 EECE 3321	Physics for Scientists and Engineers II Electric Circuits I Electric Circuits I Lab Numerical Computation and Data Visualization urs Calculus III Chemistry for Engineers or General Chemistry I Signals and Systems	C C C C C C C	030	PHYS 2425 and MATH 2414. Grade of 'C' or better in MATH 2414 and [CMPE 1101 or ELEE 1101 or ELEE 1101 or ELECE 1101] and credit/registration for PHYS 2426. Credit/registration for CMPE 2320 or ELEE 2305 or EECE 2305. CSCI 1381 and credit/registration in MATH 2346. MATH 2414 with a grade of 'C' or better. MATH 2414 with a grade of 'C' or better. Grade of 'C' or better in [CMPE 2320 or ELEE 2305 or EECE 2305] and credit/registration for MATH 3341. Grade of C or better in [CMPE 2320 or ELEE 2305 or EECE 2305] and	

	! Н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	2	EECE 3225	Electrical Engineering Lab I	с		Grade of C or better in: [ELEE 2330 or CMPE 2330 or EECE 2306] and [ELEE 2130 or CMPE 2130 or EECE 2106] and [EECE 2319 or CSCI 2380 or CMPE 2380] and credit/registration in [ELEE 3321 or CMPE 3322 or EECE 3321] and [CMPE 3403 or ELEE 3301 or EECE 3301].	
FALL	3	EECE 3315	Electromagnetics Engineering			[EECE 2305 or ELEE 2305], MATH 2415 and PHYS 2426.	
	4	EECE 3435	Microprocessor Systems	С		Grade of 'C' or better in [ELEE 2330 or CMPE 2330 or EECE 2306] and [CSCI 1370 or CSCI 1381 or CSCI 1387].	
AR	3	EECE 4303	Digital Systems Engineering II			Grade of 'C' or better in ELEE 2330 or CMPE 2330 or EECE 2306.	
RD YE	3	Choose 1	American History (Core)		060		See Core Curriculum. Options: HIST 1302 or HIST 2328
E	15	Semester Total Ho	urs				
	2	EECE 3230	Electrical Engineering Lab II	с		[EECE 2319 or ELEE 2319] and [EECE 3225 or ELEE 3225] with a minimum grade of C.	
	3	EECE 3340	Probability and Statistics for Electrical and Computer Engineers	С		Grade of 'C' or better in MATH 2414.	
SPRING	3	EECE 3302	Electronics II			[EECE 3301 or ELEE 3301] and [EECE 3321 or ELEE 3321].	
SPR	3	EECE 43XX or 33XX	Prescribed Elective				Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for approved list.
	3	POLS 2305	U.S. Federal Govt & Politics		070		
	14	Semester Total Ho	urs				
	14 ! H	Semester Total Ho Course #	urs Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
					GEC	Prerequisite [EECE 3321 or ELEE 3321] and MATH 3341.	Additional Notes
	! Н	Course #	Course Title				Additional Notes
	! Н З	Course # EECE 4321	Course Title Automatic Controls			[EECE 3321 or ELEE 3321] and MATH 3341.	Additional Notes
AR FALL	! Н 3 3	Course # EECE 4321 EECE 4328	Course Title Automatic Controls Solid State Devices			[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301	Additional Notes
	! H 3 3 3	Course # EECE 4321 EECE 4328 EECE 4351	Course Title Automatic Controls Solid State Devices Communication Theory	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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 EECE 3340] and [CMPE 3340 or EECE 3230] and [having finished or be enrolled in at 3340 or CSCI 2330 or EMPE 3230]	Additional Notes
	! н 3 3 3 3 3 3 3 3 3	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4351	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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 EECE 3340] and [CMPE 3340 or EECE 3230] and [having finished or be enrolled in at 3340 or CSCI 2330 or EMPE 3230]	Additional Notes
	! н 3 3 3 3 3 3 3 3 3	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4351 EECE 4361 PHIL 2326	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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 EECE 3340] and [CMPE 3340 or EECE 3230] and [having finished or be enrolled in at 3340 or CSCI 2330 or EMPE 3230]	Additional Notes Additional Notes Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for approved ist.
FOURTH YEAR FALL	! н 3 3 3 3 3 3 3 3 15	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4361 PHIL 2326 Semester Total Ho EECE 43XX	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society urs	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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 EECE 3340] and [CMPE 3340 or EECE 3230] and [having finished or be enrolled in at 3340 or CSCI 2330 or EMPE 3230]	Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for
FOURTH YEAR FALL	1 H 3 3 3 3 3 3 3 3 15 3	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4361 PHIL 2326 Somester Total Ho EECE 43XX or 33XX EECE 43XX	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society urs Prescribed Elective	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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 EECE 3340] and [CMPE 3340 or EECE 3230] and [having finished or be enrolled in at 3340 or CSCI 2330 or EMPE 3230]	Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for approved list. Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for
	! H 3 3 3 3 3 3 3 3 15 3 3 3	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4361 PHIL 2326 Semester Total Ho EECE 43XX or 33XX EECE 43XX or 33XX	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society urs Prescribed Elective Prescribed Elective	Grade		[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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].	Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for approved list. Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for
FOURTH YEAR FALL	! H 3 3 3 3 3 3 15 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Course # EECE 4321 EECE 4328 EECE 4351 EECE 4361 PHIL 2326 Semester Total Ho EECE 43XX or 33XX EECE 43XX EECE 4362	Course Title Automatic Controls Solid State Devices Communication Theory Senior Design I Ethics, Technology, and Society urs Prescribed Elective Senior Design II Texas Government & Politics Integrative/Experiential Learning Option (Core)	Grade	040	[EECE 3321 or ELEE 3321] and MATH 3341. EECE 3301 or ELEE 3301 [EECE 3340 or ELEE 3340] and [EECE 3321 or ELEE 3321]. 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].	Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for approved list. Must be an approved 3000- or 4000-level EECE Prescribed Elective Course. See program of study for

Major Graduation Requirements Any course in the degree plan that is a prerequisite or correquisite for an electrical engineering course must be passed with a grade of C¹ or higher. This is a graduation requirement independent of whether the student passes subsequent courses. The courses include: EECE 2306, EECE 2106, CSCI 1381, MATH 2413, EECE 1101, EECE 3435, EECE 3304, EECE 3304

CORE: The 2023-2024 list of core courses can be found in the 2023-2024 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.

TOTAL HOURS (42 advanced minimum credit hours)

Approved: Tuesday, March 28, 2023 Revised: Tuesday, March 28, 2023