

		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes		
FALL	FIRST YEAR			3	Choose 1	Communication (Core)	C	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 1305 or ENGL 1387 (H)	
				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	Choose 1	Chemistry for Engineers	C		MATH 1314, MATH 1414, MATH 2412 or MATH 2487 with a grade of C or higher	Options: CHEM 1309 or CHEM 1311	
				1	Choose 1	Chemistry for Engineers Lab	C	090	Credit/registration in CHEM 1309	Options: CHEM 1109 or CHEM 1111	
				1	MECE 1101	Introduction to Mechanical Engineering					
				2	MECE 1221	Engineering Graphics				Includes Graphics Lecture and Lab sections	
						UNIV 1301	Learning Framework			Only if required, based on ACT/SAT and high school rank.	
14 Semester Total Hours											
SPRING	FIRST YEAR			3	Choose 1	Communication (Core)	C	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	
				4	MATH 2414	Calculus II	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.		
				3	MECE 2340	Engineering Materials	C		A grade of 'C' or better in CHEM 1309 and CHEM 1109 or CHEM 1312 and CHEM 1112, and credit/registration in MECE 2140.	Lecture and lab must be taken together	
				1	MECE 2140	Engineering Materials Lab			A grade of 'C' or better in CHEM 1309 and CHEM 1109 or CHEM 1312 and CHEM 1112, and credit/registration in MECE 2340.	Lecture and lab must be taken together	
				4	PHYS 2425	Physics for Scientists and Engineers I		030	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	1 hour of lab to count for 090 Core	
15 Semester Total Hours											
SUMMER	SUMMER			3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 1387 or HIST/MASC 2327	
				3	MANE 2332	Engineering Statistics	C		MATH 2413 (or MATH 2487)		
6 Semester Total Hours											
SUMMER	SUMMER			3	MANE 3364	Manufacturing Processes			Course or Test: MECE 2140. May not be taken concurrently. AND Course or Test: MECE 2340. May not be taken concurrently.		
				1	MANE 3164	Manufacturing Processes Lab			Credit for MECE 2140 and credit/registration in MANE 3364. MECE 2340 may not be taken concurrently.		
4 Semester Total Hours											
		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes		
FALL	SECOND YEAR			3	MECE 2350	Numerical Methods for Engineers	C		Credit/registration in MATH 2414 (or MATH 2487) grade of "C" or better	Lecture and lab sections	
				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	MECE 3449	Mechanical Engineering Analysis I	C		A grade of 'C' or better in MATH 2414 (or MATH 2488) and credit/registration in MECE 2350.	Lecture and lab sections	
				3	MECE 2301	Statics	C		A grade of 'C' or better in MECE 1101 or CIVE 1221 or CIVE 1101 and PHYS 2425		
				4	PHYS 2426	Physics for Scientists and Engineers II		030	PHYS 2425.	1 hour of lab to count for 090 Core	
		17 Semester Total Hours									
		SPRING	SECOND YEAR			4	MECE 3450	Mechanical Engineering Analysis II	C		A grade of 'C' or better in MECE 2350 and MECE 3449.
				3	MECE 2302	Dynamics	C		A grade of 'C' or better in MECE 2301 and MATH 2414 (or MATH 2488)	Lecture and lab sections	
				3	MECE 2335	Thermodynamics I	C		A grade of 'C' or better in CHEM 1309 or CHEM 1311, MATH 2414 (or MATH 2488) and PHYS 2425		
				3	ELEE 2317	Electrical and Electronic Systems	C		PHYS 2426		
				3	Choose 1	Integrative/Experiential Learning Option (Core)		090		Must choose ENGL from Humanities Section. See General Education Core category 040.	
16 Semester Total Hours											

		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL	3		MECE 3321	Mechanics of Solids	C		A grade of C or better in MATH 2414 (or MATH 2488) and MECE 2301 or MANE 2403	
		3		MECE 3315	Fluid Mechanics	C		A grade of 'C' or better in MECE 2335, MATH 2415 or MECE 3449, and MATH 3349 or MECE 3450	
		1		MECE 3115	Fluid Mechanics Laboratory	C		Credit/registration in MECE 3315 a grade of "C" or better	
		3		MECE 3304	System Dynamics	C		A grade of 'C' or better in MECE 2302 and MECE 3450	
		3		MECE 3380	Kinematics & Dynamics of Mach	C		A grade of 'C' or better in MECE 1221 and MECE 2302	
		3		Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options. Recommended: ECON 2301, SOCI 1301, PSYC 2301
16 Semester Total Hours									
THIRD YEAR	SPRING	3		MECE 3320	Measurement & Instrumentation	C		A grade of 'C' or better in ELEE 2317, MANE 2332, and MECE 3450	
		3		MECE 3360	Heat Transfer	C		A grade of 'C' or better in MECE 3315	
		1		MECE 3160	Heat Transfer Laboratory	C		Credit/registration in MECE 3360 a grade of "C" or better	
		3		Choose 1	Technical Elective	C			MECE 3100, 33XX, or 43XX courses; see Faculty Advisor for Approval
		3		MECE 4350	Machine Elements	C		A grade of 'C' or better in MECE 2302, MECE 2340, and MECE 3321	
		3		Choose 1	Language, Philosophy, and Culture (Core)		040		See degree plan. Recommended: PHIL 2326
16 Semester Total Hours									
		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	FALL	3		MECE 4361	Senior Design Project I	C		A grade of 'C' or better in MECE 3304 and credit/registration in MECE 3315, MECE 3320, MECE 3360, MECE 3380, and MECE 4350	
		3		MECE 3336	Thermodynamics II	C		A grade of 'C' or better in MECE 2335	
		1		MECE 4101	Fundamentals of Engineering	C		Junior standing in engineering and within two semesters of graduation.	
		3		Choose 1	Technical Elective	C			MECE 3100, 33XX, or 43XX courses; see Faculty Advisor for Approval
		3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
		13 Semester Total Hours							
FOURTH YEAR	SPRING	3		MECE 4362	Senior Design Project II	C		A grade of 'C' or better in MECE 4361	
		3		Choose 1	Technical Elective	C			MECE 3100, 33XX, or 43XX courses; see Faculty Advisor for Approval
		3		Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
		3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
12 Semester Total Hours									

Admission Requirements: See degree plan.

Graduation Requirements

A composite GPA of 2.5 or better in Mechanical Engineering coursework is required. Also, all Mechanical Engineering coursework must be passed with a grade of 'C' or better.

CORE: The 2019-2020 list of core 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; 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.