

		! H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
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	CHEM 1309	Chemistry for Engineers	C			MATH 1314, MATH 1414 or MATH 2412 with a grade of C or higher	
	1	CHEM 1109	Chemistry for Engineers Lab	C	090		Credit/registration in CHEM 1309	
	1	MECE 1101	Introduction to Mechanical Engineering	C				
	2	MECE 1221	Engineering Graphics	C				Includes Graphics Lecture and Lab sections
			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.
		<b>14 Semester Total Hours</b>						
FIRST YEAR SPRING	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. 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
	4	MATH 2414	Calculus II	C			MATH 2413 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 a grade of 'C' or better or concurrent enrollment in MECE 2140.	Lecture and lab must be taken together
	1	MECE 2140	Engineering Materials Lab	C			A grade of 'C' or better in CHEM 1309 and CHEM 1109 or CHEM 1312 and CHEM 1112; and a grade of 'C' or better or concurrent enrollment in MECE 2340.	Lecture and lab must be taken together
	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
			<b>15 Semester Total Hours</b>					
SUMMER	3	Choose 1	American History (Core)		060			See General Education Core for more details. Options: HIST 1301 or HIST/MASC 2327
	3	MANE 3332	Engineering Statistics	C			A grade of 'C' or better in MATH 2413 and credit/registration in MATH 2414	
			<b>6 Semester Total Hours</b>					
SUMMER	3	MANE 3364	Manufacturing Processes	C			MECE 2140 and 2340.	
	1	MANE 3164	Manufacturing Processes Lab	C			Credit for MECE 2140 and credit/registration in MANE 3364. MECE 2340 may not be taken concurrently.	
		<b>4 Semester Total Hours</b>						
		! H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
SECOND YEAR FALL	3	MECE 2350	Numerical Methods for Engineers	C			A grade of 'C' or better or concurrent enrollment in MATH 2414 (or MATH 2488).	Lecture and lab sections
	3	Choose 1	American History (Core)		060			See General Education Core for more details. Options: HIST 1302 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 a grade of 'C' or better or concurrent enrollment 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; a grade of 'C' or better or concurrent enrollment in MATH 2414.	
	4	PHYS 2426	Physics for Scientists and Engineers II	C	030		PHYS 2425.	1 hour of lab to count for 090 Core
		<b>17 Semester Total Hours</b>						
SECOND YEAR SPRING	4	MECE 3450	Mechanical Engineering Analysis II	C			A grade of 'C' or better in MECE 2350 and MECE 3449.	Lecture and lab sections
	3	MECE 2302	Dynamics	C			A grade of 'C' or better in MECE 2301 and MATH 2414.	
	3	MECE 3335	Thermodynamics I	C			A grade of 'C' or better in CHEM 1309 or CHEM 1311, MATH 2414 and PHYS 2425	
	3	ELEE 2317	Electrical and Electronic Systems	C			Grade of C or better in: PHYS 2426.	Lecture and lab sections
	3	Choose 1	Integrative/Experiential Learning Option (Core)		090			ENGL from Humanities Section (See General Education Core category 040) OR CSCI 1380 Computer Science
		<b>16 Semester Total Hours</b>						

		!	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, MECE 2340, and MECE 2301 or MANE 2403.	
		3		MECE 3315	Fluid Mechanics	C		A grade of 'C' or better in (MECE 3335 or MECE 2335) and MECE 3450.	
		1		MECE 3115	Fluid Mechanics Laboratory	C		A grade of 'C' or better or concurrent enrollment in MECE 3315.	
	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		ECON 2301 Macroeconomics, SOCI 1301 Introduction to Sociology, or PSYC 2301 General Psychology	
<b>16 Semester Total Hours</b>									
SPRING		3		MECE 3320	Measurement & Instrumentation	C		A grade of 'C' or better in ELEE 2317, and MECE 3450, and (MANE 3332 or MANE 2332).	
		3		MECE 3360	Heat Transfer	C		A grade of 'C' or better in MECE 3315	
		1		MECE 3160	Heat Transfer Laboratory	C		A grade of 'C' or better or concurrent enrollment in MECE 3360.	
		3		Choose 1	Prescribed 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		PHIL 2326	Ethics, Technology, & Society		040		
<b>16 Semester Total Hours</b>									
		!	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 a grade of 'C' or better or concurrent enrollment 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 3335 or MECE 2335.	
		1		MECE 4101	Fundamentals of Engineering	C		Junior standing in engineering and within two semesters of graduation.	
	3		Choose 1	Prescribed Elective	C			MECE 3100, 33XX, or 43XX courses; see Faculty Advisor for Approval	
	3		POLS 2305	U.S. Federal Govt & Politics		070			
	<b>13 Semester Total Hours</b>								
SPRING		3		MECE 4362	Senior Design Project II	C		A grade of 'C' or better in MECE 4361 and a grade of 'C' or better or concurrent enrollment in MECE 3315, MECE 3320, MECE 3360, MECE 3380, and MECE 4350.	
		3		Choose 1	Prescribed Elective	C			MECE 3100, 33XX, or 43XX courses; see Faculty Advisor for Approval
		3		POLS 2306	Texas Government & Politics		070		
		3		Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
		<b>12 Semester Total Hours</b>							

#### Progression Requirements:

A GPA of 2.5 or better in Mechanical Engineering coursework on the degree plan.

MECE 2301, MECE 2302, MECE 2340, MECE 3321, MECE 3335, and MECE 3449 cannot be taken more than 2 times without the approval from the department.

#### Graduation Requirements

A 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. See degree plan for more details.

**CORE: The 2021-2022 list of core courses can be found in the 2021-2022 Undergraduate Catalog: [www.utrgv.edu/catalog](http://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.

**129 TOTAL HOURS (42 advanced minimum credit hours)**