

		I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes																																																																																																																	
FALL	!	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		MECE 1101	Introduction to Mechanical Engineering	C																																																																																																																				
		2		MECE 1221	Engineering Graphics	C			Includes lecture and lab sections																																																																																																																	
		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																																																																																																																		
		3		CSCI 1380	Introduction to Programming		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.																																																																																																																		
			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																																																																																																																										
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.	See General Education Core for more details Option: ENGL 1301																																																																																																																	
	!	4		MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.																																																																																																																		
	!	4		PHYS 2425	Physics for Scientists and Engineers I	C	030	MATH 2413.	1 hour lab to count for 090 Core																																																																																																																	
		3		MECE 2340	Engineering Materials	C		A grade of 'C' or better in CHEM 1309 and CHEM 1109 and concurrent enrollment in MECE 2140.	Lecture and lab must be taken together Cannot be taken more than two times without approval from the department																																																																																																																	
		1		MECE 2140	Engineering Materials Lab	C		A grade of 'C' or better in CHEM 1309 and CHEM 1109 and concurrent enrollment in MECE 2340.	Lecture and lab must be taken together																																																																																																																	
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SUMMER I		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																																																																																																																	
		3		MANE 3332	Engineering Statistics	C		A grade of 'C' or better in MATH 2413 and concurrent enrollment in MATH 2414																																																																																																																		
	6 Semester Total Hours																																																																																																																									
SUMMER II		3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327																																																																																																																	
		3		MANE 3364	Manufacturing Processes	C		MECE 2140 and 2340.																																																																																																																		
		1		MANE 3164	Manufacturing Processes Lab	C		Credit for [MECE 2140, MECE 2340, and MANE 3332] and credit for/registration in MANE 3364.																																																																																																																		
7 Semester Total Hours																																																																																																																										
<table border="1"> <thead> <tr> <th colspan="2"></th> <th>I</th> <th>H</th> <th>Course #</th> <th>Course Title</th> <th>Min. Grade</th> <th>GEC</th> <th>Prerequisite</th> <th>Additional Notes</th> </tr> </thead> <tbody> <tr> <td rowspan="4">FALL</td> <td>!</td> <td>4</td> <td></td> <td>MATH 2415</td> <td>Calculus III</td> <td>C</td> <td></td> <td>MATH 2414 with a grade of 'C' or better.</td> <td></td> </tr> <tr> <td></td> <td>4</td> <td></td> <td>PHYS 2426</td> <td>Physics for Scientists and Engineers II</td> <td>C</td> <td>030</td> <td>PHYS 2425 and MATH 2414.</td> <td>1 hour lab to count for 090 Core</td> </tr> <tr> <td>!</td> <td>4</td> <td></td> <td>MECE 3440</td> <td>Mechanical Engineering Analysis</td> <td>C</td> <td></td> <td>A grade of 'C' or better in CSCI 1380 and MATH 2414.</td> <td>Includes lecture and lab sections Cannot be taken more than two times without approval from the department</td> </tr> <tr> <td></td> <td>3</td> <td></td> <td>MECE 2301</td> <td>Statics</td> <td>C</td> <td></td> <td>A grade of 'C' or better in MECE 1101 and PHYS 2425; a grade of 'C' or better or concurrent enrollment in MATH 2414.</td> <td>Cannot be taken more than two times without approval from the department</td> </tr> <tr> <td colspan="10">15 Semester Total Hours</td> </tr> <tr> <td rowspan="5">SECOND YEAR SPRING</td> <td>!</td> <td>4</td> <td></td> <td>MECE 3450</td> <td>Mechanical Engineering Analysis II</td> <td>C</td> <td></td> <td>A grade of 'C' or better in [MECE 2350 and MECE 3449] or [MECE 3440 and MATH 2415] or [MECE 3449 and MECE 3440].</td> <td>Includes lecture and lab sections</td> </tr> <tr> <td></td> <td>3</td> <td></td> <td>MECE 2302</td> <td>Dynamics</td> <td>C</td> <td></td> <td>A grade of 'C' or better in MECE 2301 and MATH 2414.</td> <td>Cannot be taken more than two times without approval from the department</td> </tr> <tr> <td></td> <td>3</td> <td></td> <td>MECE 3335</td> <td>Thermodynamics I</td> <td>C</td> <td></td> <td>A grade of 'C' or better in CHEM 1309/1109, MATH 2414 and PHYS 2425</td> <td>Cannot be taken more than two times without approval from the department</td> </tr> <tr> <td></td> <td>3</td> <td></td> <td>EECE 2317</td> <td>Electrical and Electronics Systems</td> <td>C</td> <td></td> <td>PHYS 2426</td> <td>Includes lecture and lab sections</td> </tr> <tr> <td></td> <td>3</td> <td></td> <td>Choose 1</td> <td>American History (Core)</td> <td></td> <td>060</td> <td></td> <td>See General Education Core for more details. Options: HIST 1302 or HIST 2328</td> </tr> <tr> <td colspan="10">16 Semester Total Hours</td> </tr> </tbody> </table>												I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	FALL	!	4		MATH 2415	Calculus III	C		MATH 2414 with a grade of 'C' or better.			4		PHYS 2426	Physics for Scientists and Engineers II	C	030	PHYS 2425 and MATH 2414.	1 hour lab to count for 090 Core	!	4		MECE 3440	Mechanical Engineering Analysis	C		A grade of 'C' or better in CSCI 1380 and MATH 2414.	Includes lecture and lab sections Cannot be taken more than two times without approval from the department		3		MECE 2301	Statics	C		A grade of 'C' or better in MECE 1101 and PHYS 2425; a grade of 'C' or better or concurrent enrollment in MATH 2414.	Cannot be taken more than two times without approval from the department	15 Semester Total Hours										SECOND YEAR SPRING	!	4		MECE 3450	Mechanical Engineering Analysis II	C		A grade of 'C' or better in [MECE 2350 and MECE 3449] or [MECE 3440 and MATH 2415] or [MECE 3449 and MECE 3440].	Includes lecture and lab sections		3		MECE 2302	Dynamics	C		A grade of 'C' or better in MECE 2301 and MATH 2414.	Cannot be taken more than two times without approval from the department		3		MECE 3335	Thermodynamics I	C		A grade of 'C' or better in CHEM 1309/1109, MATH 2414 and PHYS 2425	Cannot be taken more than two times without approval from the department		3		EECE 2317	Electrical and Electronics Systems	C		PHYS 2426	Includes lecture and lab sections		3		Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328	16 Semester Total Hours									
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THIRD YEAR	3	MECE 3304	System Dynamics	C		A grade of 'C' or better in MECE 2302 and MECE 3450.	
	3	MECE 3315	Fluid Mechanics	C		A grade of 'C' or better in MECE 3335 and MECE 3450.	
	3	MECE 3321	Mechanics of Solids	C		A grade of 'C' or better in MATH 2414, MECE 2340, and MECE 2301.	Cannot be taken more than two times without approval from the department
	3	MECE 3380	Kinematics & Dynamics of Machines	C		A grade of 'C' or better in MECE 1221 and MECE 2302	
	3	Choose 1	Social and Behavioral Sciences (Core)		080		Choose from: ECON 2301 Macroeconomics, PSYC 2301 General Psychology, or SOCI 1301 Introduction to Sociology
15 Semester Total Hours							
SPRING	3	MECE 3320	Measurement & Instrumentation	C		A grade of 'C' or better in (ELEE 2317 or EECE 2317) and MECE 3450 and MANE 3332.	
	3	MECE 3360	Heat Transfer	C		A grade of 'C' or better in MECE 3315	
	1	MECE 3170	Thermal Fluids Laboratory	C		A grade of 'C' or better in MECE 3315 and a grade of 'C' or better or concurrent enrollment in MECE 3360.	
	3	MECE 4350	Machine Elements	C		A grade of 'C' or better in MECE 2302, MECE 2340, and MECE 3321	
	3	Choose 1	Prescribed Elective	C			MECE 33XX or MECE 43XX course from approved list -OR- one of the following, which requires prior approval from Department of Mechanical Engineering: (1) MECE 3100 for three terms, (2) MECE 3300 across two terms, (3) non-MECE advanced engineering, mathematics, or science course
	3	Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
16 Semester Total Hours							
	! H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	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 3320, MECE 3360, MECE 3380, and MECE 4350.	
	3	MECE 3336	Thermodynamics II	C		A grade of 'C' or better in MECE 3335.	
	1	MECE 4101	Fundamentals of Engineering	C		Junior standing in engineering and within two semesters of graduation.	
	3	Choose 1	Prescribed Elective	C			MECE 33XX or MECE 43XX course from approved list -OR- one of the following, which requires prior approval from Department of Mechanical Engineering: (1) MECE 3100 for three terms, (2) MECE 3100 for one term plus MECE 3200 for one term, (3) non-MECE advanced engineering, mathematics, or science course
	3	POLS 2305	U.S. Federal Govt & Politics		070		
13 Semester Total Hours							
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 33XX or MECE 43XX course from approved list -OR- one of the following, which requires prior approval from Department of Mechanical Engineering: (1) MECE 3100 for three terms, (2) MECE 3100 for one term plus MECE 3200 for one term, (3) non-MECE advanced engineering, mathematics, or science course
	3	PHIL 2326	Ethics, Technology, & Society		040		
	3	POLS 2306	Texas Government & Politics		070		
12 Semester Total Hours							

Major Entrance Requirements:

Admission requirements for this program beyond university admission requirements: (1) A grade of C or better in MATH 2413 Calculus I in no more than 3 attempts -OR- (2) A minimum composite score of 24 on the ACT or 1200 on the SAT -OR- (3) A score of 3 or better on the Calculus AB AP exam.

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 3440 cannot be taken more than 2 times without the approval from the Department of Mechanical Engineering.

Graduation Requirements:

A GPA of 2.5 or better in Mechanical Engineering coursework. All Mechanical Engineering coursework must be passed with a grade of 'C' or better. See program of study for complete list of courses that must be passed 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.

129 TOTAL HOURS (42 advanced minimum credit hours)

Approved: Tuesday, November 1, 2022

Revised: Thursday, October 20, 2022