



Bachelor of Science in Manufacturing Engineering Manufacturing Engineering

2025-2026

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL	3	Choose 1	Communication	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.	A grade of C or better in MATH 2413 Calculus I in no more than 3 attempts.
		3	CSCI 1380	Introduction to Programming in Python	C	090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
		3	CHEM 1309	Chemistry for Engineers	C		Minimum grade of C is required in one of the following courses: MATH 1314, MATH 1414, MATH 2412, MATH 2413 or MATH 2487.	
		1	CHEM 1109	Chemistry for Engineers Lab	C	090	Credit/registration in CHEM 1309	
			UNIV	1301 Learning Framework 1101 Academic and Career Success 1001/1300 Living and Working by Design				As required, based on a number of factors such as credit hours earned, TSI status, high school rank, major declaration, etc.
	14 Semester Total Hours							
	SPRING	3	Choose 1	Communication	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 Options: ENGL 1302 or ENGL 1305
		4	MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.	
		1	MANE 1101	Introduction to Manufacturing Engineering				
		3	MANE 3332	Engineering Statistics	C		MATH 2413 and credit for or enrollment in MATH 2414.	
		2	MANE 1204	Manufacturing Engineering Graphics				
		3	Choose 1	Social and Behavioral Sciences		080		See General Education Core Curriculum for options
	16 Semester Total Hours							
		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
SECOND YEAR	FALL	3	MANE 3351	Manufacturing Engineering Analysis	C		MATH 2414 and CSCI 1380.	
		4	PHYS 2425	Physics for Scientists and Engineers I	C	030/ 090	MATH 2413.	1 hour lab to count for 090 Core
		3	MANE 4311	Quality Control	C		MANE 3332.	
		3	MECE 2340	Engineering Materials	C		A grade of 'C' or better in CHEM 1309 and CHEM 1109 or CHEM 1312 and CHEM 1112; a grade of 'C' or better or concurrent enrollment in MECE 2140.	
		1	MECE 2140	Engineering Materials Laboratory			A grade of 'C' or better in CHEM 1309 and CHEM 1109 or CHEM 1312 and CHEM 1112; a grade of 'C' or better or concurrent enrollment in MECE 2340.	
		3	MANE 3300	Computer-Aided Design	C		Either MANE 1204 or MECE 1221 or ENGR 1304.	
	17 Semester Total Hours							
	SPRING	4	MATH 2415	Calculus III			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	MANE 4340	Operations Research	C		Grade of 'C' or better in MANE 3351.	
		4	PHYS 2426	Physics for Scientists and Engineers II	C	030/ 090	PHYS 2425 and MATH 2414.	1 hour lab to count for 090 Core
		3	MANE 3337	Engineering Economics	C		Credit/registration in MANE 2332 or MANE 3332.	
		3	MANE 3340	Fundamentals of Industrial Engineering	C		Credit/registration in MANE 2332 or MANE 3332.	
		17 Semester Total Hours						

The 2024-2026 list of core courses can be found in the 2024-2026 Undergraduate Catalog: www.utrgv.edu/catalog > See 'Bachelors Degree Program Regulations'

Symbols Key

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.
Bolded Course #: Program Admission Requirement

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.

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL	3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327
		3	MANE 4331	Manufacturing Planning and Control	C		Grade of 'C' or better in MANE 4340.	
		4	MANE 2403	Engineering Mechanics	C		Grade of 'C' or better in PHYS 2425.	
		3	MATH 3341	Differential Equations			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		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.	
	17 Semester Total Hours							
	SPRING	3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328
		3	MECE 3321	Mechanics of Solids			A grade of C or better in MATH 2414, MECE 2340, and MECE 2301 or MANE 2403. Must be officially admitted to the Mechanical Engineering major or Manufacturing Engineering major.	
		3	MANE 43XX or MANE 33XX	Prescribed Elective I				Choose any advanced MANE courses not used to fulfill other requirements.
		1	MANE 4173	Product Design and Mass Customization	C		MANE 3337.	
		3	MANE 3302	Computer-Aided Manufacturing			Credit/registration in MANE 3364.	
		3	MANE 4444	Modern Manufacturing Processes			C or better in MANE 3364 and MANE 3164.	
	16 Semester Total Hours							
		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	FALL	3	POLS 2305	U.S. Federal Govt & Politics		070		
		3	Choose 1	Creative Arts		050		See General Education Core Curriculum for options
		3	EECE 2317	Electrical and Electronic Systems			Grade of C or better in PHYS 2426.	
		3	MANE 4361	Senior Design I			Grade of 'C' or better in [MANE 3337 and MANE 3340] and credit for/registration in [MANE 4173, MANE 4311, MANE 4352 and MANE 4331].	
		3	MANE 33XX-43XX	Prescribed Elective II				Choose any advanced MANE courses not used to fulfill other requirements.
		3	MANE 4352	Manufacturing Simulation	C		Grade of 'C' or better in MANE 2332 or MANE 3332.	
	18 Semester Total Hours							
	SPRING	3	POLS 2306	Texas Government & Politics		070		
		3	MANE 43XX or MANE 33XX	Prescribed Elective III				Choose any advanced MANE courses not used to fulfill other requirements.
		4	MANE 4322	Robotics & Industry Automation			MATH 2415 and MANE 3351.	
		3	PHIL 2326	Ethics, Technology and Society		040		
		3	MANE 4362	Senior Design II			MANE 4361.	
	16 Semester Total Hours							

131 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Tuesday, February 18th, 2025