Major Map

BULLETIN YEAR: 2021-2022 **Degree:** BSME **MAJOR:** Mechanical Engineering

The major map illustrates one path to completing your major, based on faculty members' advice on course sequence and a department's tentative plans for scheduling courses. This document provides general direction. For more specific advice and up to date schedules, it is expected that students will regularly discuss their plans of study with academic advisors and monitor the current class schedules as students are responsible for ensuring that all requirements for graduation have been met.

Course	Cr. Hrs.		Course	Cr. Hrs.
FIRST YEAR				
Semester: Fall Total Credit Hours: 13-16			Semester: Spring Total Credit Hours: 16	
MTH 132 Calculus I (UP IIB)	4		MTH 133 Calculus II	4
EGR 120 Intro To Engineering	3		PHY 145QR University Physics I	4
EGR 190QR Digital Circuits	3		PHY 175 University Physics Laboratory I	1
ENG 101 Freshman Comp (if needed)	0-3		EGR 200 Comp Aided Problem Solving	3
[1]Oral English Competency (UP IB)	3		[2]CHM 141 Gen Chem for Engr Students	4
	Cr. Hrs.		Course	Cr. Hrs.
SOPHOMORE YEAR				
Semester: Fall Total Credit Hours: 19			Semester: Spring Total Credit Hours: 16	
MTH 232 Linear Algebra & Diff Eqns	3		MTH 233 Calculus III	4
PHY 146 University Physics II	4		EGR 253 Engineering Dynamics	3
EGR 251 Engineering Statics	3		EGR 255 Strength of Materials	3
IET 154 Engineering Design Graphics	3		EGR 356 Thermodynamics I	3
ENG 201 Intermediate Composition	3		BLR 202WI Legal Env of Bus (UP IIIB)	3
General Studies (UP WI)	3			
Course	Cr. Hrs.		Course	Cr. Hrs.
JUNIOR YEAR				
Semester: Fall Total Credit Hours: 15			Semester: Spring Total Credit Hours: 18	
EGR 355 Engineering Materials	3		EGR 300 Engineering Economics	3
EGR 358 Fluid Mechanics	3		EGR 375 Mechatronics	3
EGR 359 Machine Design I	3		EGR 377 Engineering Prototypes	3
EGR 360 Solid Mechanics Lab	3		EGR 456 Thermo II & Heat Transfer	3
STA 392 Probability and Stat. for Eng.	3		General Studies (UP)	3
			General Studies (UP)	3
Course	Cr. Hrs.		Course	Cr. Hrs.
SENIOR YEAR				
Semester: Fall Total Credit Hours: 18			Semester: Spring Total Credit Hours: 15	
EGR 458 Meas. and Instrument. Lab	3		EGR 460 Thermo. Fluid Lab	3
EGR 459 Machine Design II	3		EGR 499 Senior Design II	3
EGR 489 Senior Design I	3		EGR 553 Mechanical Vibrations	3
[3]Mechanical Engineering Elective	3		[3]Mechanical Engineering Elective	3
General Studies (UP)	3		General Studies (UP)	3
General Studies (UP)	3			
Course	Cr. Hrs.		Course	Cr. Hrs.
FIFTH YEAR (IF NEEDED)				
Semester: Total Credit Hours:			Semester: Total Credit Hours:	

130 hours minimum required for graduation **40 hours 300 level or above required**

[1] TAI 170 completes the U.P. Group I-B and the Oral English Competency requirement, which must be fulfilled before 56 hours.

[2] CHM 131 is required for 20-21 Bulletin. CHM 141 is a new course that will be required in future Bulletins and can be requested for 20-21. Students under 20-21 Bulletin may take either but are recommended to take CHM141.

[3] Electives as listed in 20-21 Bulletin: EGR 201, 290, 371, 397, 437, 477, 479, 497, 554, 555, 576, 578, 597. The School continues to update course offerings; new courses may qualify for 20-21 electives if announced by the School.