

# MECHANICAL ENGINEERING

Department of Mechanical Engineering



Last update: 10/11/2023

## Sample Four-Year Plan

### First Year

1st Semester		sh	2nd Semester		sh
ALL	<b>CHEM:1110 Principles of Chemistry I</b> <i>(P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)</i>	4	F/S	<b>ENGR:1300 Intro to Engineering Computing</b> <i>(C: MATH:1550)</i>	3
F	<b>ENGR:1000 Engineering Success for First-Year Students</b> <i>(First semester standing)</i>	1	ALL	<b>MATH 1560 Math II: Multivariable Calculus</b> <i>(P: MATH:1550 with a minimum grade of C-)</i>	4
F	<b>ENGR:1100 Intro to Engineering Problem Solving</b>	3	ALL	<b>MATH:2550 Math III: Matrix Algebra</b> <i>(P: MATH:1550 or MATH:1560)</i>	2
F/S	<b>MATH:1550 Math I: Single Variable Calculus</b> <i>(P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)</i>	4	ALL	<b>PHYS:1611 Introductory Physics I / Lab</b> <i>(C: MATH:1550)</i>	4
ALL	<b>RHET:1030 Rhetoric</b>	4	ALL	<b>General Education Course #1</b>	3
		16			16

### Second Year

3rd Semester		sh	4th Semester		sh	
ALL	<b>ENGR:2110 Statics</b> <i>(P: MATH:1550; C: MATH:1560 &amp; PHYS:1611)</i>	2	ALL	<b>ENGR:2710 Dynamics</b> <i>(P: ENGR:2110 &amp; MATH:1550)</i>	3	
ALL	<b>ENGR:2120 Electrical Circuits</b> <i>(C: MATH:2560)</i>	3	ALL	<b>ENGR:2720 Materials Science</b> <i>(P: CHEM:1110; C: MATH:1550)</i>	3	
ALL	<b>ENGR:2130 Thermodynamics</b> <i>(P: CHEM:1110 &amp; PHYS:1611; C: MATH:1560)</i>	3	ALL	<b>ENGR:2750 Mechanics of Deformable Bodies</b> <i>(P: ENGR:2110; C: MATH:2560)</i>	3	
ALL	<b>MATH:2560 Math IV: Differential Equations</b> <i>(P: MATH:1560 &amp; MATH:2550)</i>	3	S	<b>ME:2200 Introduction to Mechanical Engineering Design</b> <i>(P: ENGR:1100)</i>	2	
F	<b>ME:2020 Mechanical Engineering Program Seminar</b>	0	F/S	<b>ME:2300 Manufacturing Processes</b> <i>(C: ENGR:2720 &amp; (ME:2200 or BME:2710))</i>	3	
F/S	<b>PHYS:1612 Introductory Physics II / Lab</b> <i>(P: PHYS:1611; C: MATH:1560)</i>	4	OR	ALL	<b>STAT:2020 Probability &amp; Statistics For Engr &amp; Phys Sci</b> <i>(P: MATH:1560)</i>	3
ALL	<b>General Education Course #2</b>	3	F/S	<b>Elective #1: Focus Area, Minor, Certificate, etc.</b>	3	
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### Third Year

5th Semester		sh	6th Semester		sh
F/S	<b>ENGR:2510 Fluid Mechanics</b> <i>(P: MATH:2560 &amp; ENGR:2710; C: ENGR:2130)</i>	4	S	<b>ME:3045 Heat Transfer</b> <i>(P: ENGR:2510, MATH:3550 &amp; ENGR:1300)</i>	3
F/S	<b>MATH:3550 Engineering Math V: Vector Calculus</b> <i>(P: MATH:1560 &amp; MATH:2550; C: MATH:2560)</i>	3	S	<b>ME:3052 Mechanical Systems</b> <i>(P: ENGR:2750; C: ENGR:2720 &amp; ME:2300 &amp; STAT:2020)</i>	4
F	<b>ME:3091 Professional Seminar: Mechanical Engineering</b> <i>(P: ME:2020)</i>	0	F/S	<b>Elective #2: Focus Area, Minor, Certificate, etc.</b>	3
F	<b>ME:3351 Engineering Instrumentation</b> <i>(P: ENGR:2120 &amp; PHYS:1612)</i>	2	F/S	<b>Elective #3: Focus Area, Minor, Certificate, etc.</b>	3
F	<b>ME:3600 Control of Mechanical Engineering Systems</b> <i>(P: ENGR:2710 &amp; MATH:2560)</i>	3	ALL	<b>General Education Course #3</b>	3
ALL	<b>STAT:2020 Probability &amp; Statistics For Engr &amp; Phys Sci</b> <i>(P: MATH:1560)</i>	3	OR		
F/S	<b>ME:2300 Manufacturing Processes</b> <i>(C: ENGR:2720 &amp; (ME:2200 or BME:2710))</i>	3			
		15			16

### Fourth Year

7th Semester		sh	8th Semester		sh	
F	<b>ME:4048 Energy Systems Design</b> <i>(P: ME:3045)</i>	4	F/S	<b>Elective #6: Focus Area, Minor, Certificate, etc.</b>	3	
F	<b>ME:4055 Mechanical Systems Design</b> <i>(P: ENGR:2710 &amp; ME:3052)</i>	3	F/S	<b>Elective #7: Focus Area, Minor, Certificate, etc.</b>	3	
F/S	<b>Elective #4: Focus Area, Minor, Certificate, etc.</b>	3	OR	F/S	<b>ME:4080 Experimental Engineering</b> <i>(P: ME:3351, ME:3045 &amp; ME:3052)</i>	4
F/S	<b>ME:4080 Experimental Engineering</b> <i>(P: ME:3351, ME:3045 &amp; ME:3052)</i>	4	F/S	<b>Elective #4: Focus Area, Minor, Certificate, etc.</b>	3	
F/S	<b>Elective #5: Focus Area, Minor, Certificate, etc.</b>	3	OR	F/S	<b>ME:4086 Mechanical Engineering Design Project</b> <i>(C: ME:4048 or ME:4055)</i>	3
F/S	<b>ME:4086 Mechanical Engineering Design Project</b> <i>(C: ME:4048 or ME:4055)</i>	3	F/S	<b>Elective #5: Focus Area, Minor, Certificate, etc.</b>	3	
ALL	<b>General Education Course #4</b>	3	ALL	<b>General Education Course #5</b>	3	