Sample 4-Year B.S. Mechanical Engineering Curriculum

	Example					
1	**Course (Credits)** Course Name (PR: Prerequisites) (CR: Corequisites)	**GEEN 1400 (3)** First-Year Engineering Projects	**APPM 1350 (4)** Calculus 1 For Engineers	**PHYS 1110 (4)** General Physics 1 (CR: APPM 1350)	**CSCI 1300 (4)** Computer Science 1 (CR: APPM 1350)	
2	**MCEN 1025 (4)** Computer-Aided Design & Fabrication	**MCEN 1024 (3)** Chemistry of Energy & Materials	**APPM 1360 (4)** Calculus 2 For Engineers (PR: APPM 1350)	**PHYS 1120 (4)** General Physics 2 (PR: PHYS 1110) (CR: APPM 1360)	**PHYS 1140 (1)** Experimental Physics (CR: PHYS 1120)	
3	**Humanities & Social Science (3)** Lower Division	**MCEN 2000 (1)** Mechanical Engineering as a Profession	**APPM 2350 (4)** Calculus 3 For Engineers (PR: APPM 1360)	**MCEN 2024 (3)** Materials Science (PR: MCEN 1024, PHYS 1110)	**Math/Science Requirement (3)**	**MCEN 2023 (3)** Statics & Structures (PR: APPM 1360, PHYS 1110)
4	**Humanities & Social Science (3)** Lower Division	**Free Elective (3)**	**APPM 2360 (4)** Linear Algebra & Differential Equations (PR: APPM 1360)	**MCEN 3012 (3)** Thermodynamics 1 (PR: APPM 1360)	**MCEN 2063 (3)** Mechanics of Solids (PR: MCEN 2023, APPM 1360)	**MCEN 2043 (3)** Dynamics (PR: MCEN 2023, APPM 1360)
5	**Humanities & Social Science (3)** Lower Division	**MCEN 3025 (3)** Component Design (PR: MCEN 1025, MCEN 2024, MCEN 2063)	**MCEN 3030 (3)** Computational Methods (PR: CSCI 1300, APPM 2360)	**MCEN 3017 (3)** Circuits & Electronics (PR: PHYS 1120) (CR: APPM 2360)	**MCEN 3021 (3)** Fluid Mechanics (PR: MCEN 2023, APPM 2350)	
6	**Writing Requirement (3)**	**MCEN 4026 (3)** Manufacturing Processes & Systems (PR: MCEN 2024)	**General Technical Elective (3)**	**MCEN 3022 (3)** Heat Transfer (PR: MCEN 3012, MCEN 3021, APPM 2360)	**MCEN 4043 (3)** System Dynamics (PR: MCEN 2043, MCEN 3017, APPM 2360) (CR: MCEN 3030)	
7	**Humanities & Social Science (3)** Upper Division	**MCEN 4045 (3)** Mechanical Engineering Design Project 1 (*Fall Only*)	**MCEN 3032 (3)** Thermodynamics 2 (PR: MCEN 3012, MCEN 3021, APPM 2360)	**Mechanical Technical Elective (3)**	**MCEN 3047 (4)** Data/Measurements (PR: MCEN 2063, APPM 2360, PHYS 1140) (CR: Writing, MCEN 3030, MCEN 3017)	
8	**Humanities & Social Science (3)** Upper Division	**MCEN 4085 (3)** Mechanical Engineering Design Project 2 (PR: MCEN 4045) (*Spring Only*)	**Free Elective (3)**	**Mechanical Technical Elective (3)**	**General Technical Elective (3)**	

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Key

== Can be taken any semester pending completion of any applicable pre/co-requisites.

== Must be taken as a pre-requisite to MCEN 4045.

== Must take at least one of MCEN 3047, MCEN 3022 or MCEN 4043 as a pre-requisite to MCEN 4045. Remaining two can be taken as a co-requisite to MCEN 4045. All courses must be taken as a pre-requisite to MCEN 4085.

== Can be taken as a pre-requisite or co-requisite to MCEN 4045.

== Mechanical Engineering Design Project Sequence.

Effective: Fall 2023

Semester X Semester Plan

Academic Year	Fall	Spring	Summer
Year 1	GEEN 1400 (3)	MCEN 1025 (4)	
	CSCI 1300 (4)	MCEN 1024 (3)	
	APPM 1350 (4)	APPM 1360 (4)	
	PHYS 1110 (4)	PHYS 1120 (4)	
		PHYS 1140 (1)	
Year 2	H&SS LD (3)	H&SS LD (3)	
	MCEN 20000 (1)	Free Elective (3)	
	MCEN 2024 (3)	MCEN 3012 (3)	
	APPM 2350 (4)	APPM 2360 (4)	
	Math/Science (3)	MCEN 2063 (3)	
	MCEN 2023 (3)	MCEN 2043 (3)	
Year 3	H&SS LD (3)	Writing (3)	
	MCEN 3025 (3)	MCEN 4026 (3)	
	MCEN 3030 (3)	GEN Tech (3)	
	MCEN 3017 (3)	MCEN 3022 (3)	
	MCEN 3021 (3)	MCEN 4043 (3)	
Year 4	H&SS UD (3)	H&SS UD (3)	
	MCEN 4045 (3)	MCEN 4085 (3)	
	MCEN 3032 (3)	Free Elective (3)	
	ME Tech (3)	ME Tech (3)	
	MCEN 3047 (4)	GEN Tech (3)	