

Binary Program Course Requirements
Case School of Engineering

Mechanical Engineering
(DRAFT)

Courses equivalent to the following need to be taken prior to admission to Case School of Engineering for all degree programs

Subject Code	Course Number	Course Title	Semester Credit Hours
CHEM	105	Principles of Chemistry I	3
CHEM	106	Principles of Chemistry II	3
CHEM	113	Principles of Chemistry Lab	2
ENGR	131	Elementary Computer Programming	3
MATH	121	Calculus for Science & Engineering I	4
MATH	122	Calculus for Science & Engineering II	4
MATH	223	Calculus for Science & Engineering III	3
MATH	224	Elementary Differential Equations	3
PHYS	121	General Physics I	4
PHYS	122	General Physics II	4
		Humanities and Social Sciences	22
		(including college level writing proficiency)	0
		Physical Education (2 semesters)	0
			55

Other courses for the Mechanical Engineering major to be taken prior to CSE enrollment

Subject Code	Course Number	Course Title	Semester Credit Hours
*	PHYS 221	Intro to Modern Physics (or) Equivalent Science or Statistics Elective	3 -
**	ENGR 210	Intro to Circuits and Instruments	3
**	ENGR 200	Statics and Strength of Materials	3
**	ENGR 225	Thermo Fluids Heat and Mass Transfer	3
**	EMAE 250	Computers and Mechanical Engineering	3

* required course
** recommended course

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Mechanical Engineering

Fall Year 1

Subject Code	Course Number	Course Title	Hours per Week		Semester Credit Hours
			Class	Lab	
EMAE	172	Intro to Mechanical Manufacturing	3	3	4
ENGR	200	Statics and Strength of Materials	3	0	3
ENGR	282	Mechanical Engineering Lab I	1	3	2
EMAE	350	Mechanical Engineering Analysis	3	0	3
EMAE	250	Computers in Mechanical Engineering	3	0	3
ENGL	398N	Professional Communication	3	0	3
			16	6	18

Spring Year 1

Subject Code	Course Number	Course Title	Hours per Week		Semester Credit Hours
			Class	Lab	
ECIV	310	Strength of Materials	3	0	3
ENGR	225	Intro to Fluid and Thermal Engineering	4	0	4
EMAE	283	Mechanical Engineering Lab II	1	3	2
EMAE	181	Dynamics	3	0	3
ENGR	210	Intro to Circuits and Instrumentation	3	2	4
			14	5	16

Fall Year 2

Subject Code	Course Number	Course Title	Hours per Week		Semester Credit Hours
			Class	Lab	
EECS	212	Intro to Signals, Systems and Control	3	0	3
EECS	214	Signals and Systems Lab	0	2	1
EMAE	360	Engineering Design	3	0	3
OPRE	345	Engineering Economics and Decision Making	3	0	3
EMAE	325	Senior Project in Materials I	4	0	4
		Technical Elective	3	0	3
			16	2	17

Spring Year 2

Subject Code	Course Number	Course Title	Hours per Week		Semester Credit Hours
			Class	Lab	
EMAE	271	Kinematics Analysis and Synthesis	2	2	3
EMAE	370	Design of Mechanical Elements	3	0	3
EMAE	398	Senior Project	1	6	3
EMAE	355	Design of Fluid and Thermal Systems	3	0	3
		Technical Elective	3	0	3
		Technical Elective	3	0	3
			15	8	18