

Binary Program Course Requirements
Case School of Engineering

Aerospace 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 (including college level writing proficiency)	22
		Physical Education (2 semesters)	0
			55

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

	Subject Code	Course Number	Course Title	Semester Credit Hours
*	EMSE	201	Intro to Materials Science & Engineering	3
*	PHYS	221	Intro to Modern Physics	3
**	ENGR	200	Statics and Strength Materials	3
**	ENGR	210	Intro to Circuits and Instruments	3
**	ENGR	225	Thermo Fluids Heat and Mass Transfer	3
**	EMAE	250	Computers in Mechanical Engineering	3

* required course
** recommended course

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Aerospace 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
EMAE	381	Flight and Orbital Mechanics	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	376	Aerostructures	3	0	3
EMAE	359	Aerogas dynamics	3	0	3
EMAE	398	Senior Project	1	6	3
EMAE	355	Design of Fluid and Thermal Systems	3	0	3
EMAE	382	Propulsion	3	0	3
EMAE	356	Aerospace Design	3	0	3
			13	6	18