

# BS in Aerospace Engineering

## Sequence of Courses

The undergraduate program requires the completion of 129 credit hours for graduation, minus advanced placement credit. Specific degree requirements are given below:

Course	Title	Hours
<b>Foundation Courses</b>		
ENGL 101/100	College English I	3
ENGL 102	College English II	3
COMM 111	Public Speaking	3
PHIL 385	Engineering Ethics	3
ECON 201	Principles of Macroeconomics	3
Fine arts/humanities & social/behavioral sciences courses <sup>1</sup>		12
<b>Mathematics/Natural Sciences</b>		
MATH 242	Calculus I	5
MATH 243	Calculus II	5
MATH 344	Calculus III	3
MATH 555	Differential Equations I	3
PHYS 313	Physics for Scientists I	4
PHYS 314	Physics for Scientists II	4
PHYS 315	University Physics Lab I	1
CHEM 211	General Chemistry I	5
Math or science elective <sup>2</sup>		3
<b>Major Courses</b>		
AE 223	Statics	3
EE 282	Circuits I	4
ME 398	Thermodynamics I	3
AE 227	Engineering Digital Computation	3
IME 222	Engineering Graphics <sup>3</sup>	2
IME 222L	Graphics Lab <sup>3</sup>	1
ME 250	Materials Engineering	3
AE 324	Fundamentals of Atmospheric Flight	3
AE 333	Mechanics of Materials	3
AE 373	Dynamics	3
AE 415	Introduction to Space Dynamics	3
AE 424	Aerodynamics I	3
AE 502	Aerospace Propulsion I	3
AE 512	Experimental Methods in Aerospace	3
AE 514	Flight Dynamics and Control	3
AE 524	Aerodynamics II	3
AE 525 & AE 625	Flight Structures I and Flight Structures II	6
AE 528 & AE 628	Aerospace Design I and Aerospace Design II	8
AE 607	Flight Control Systems	3
Technical electives <sup>2</sup>		6
Total Credit Hours		129

<sup>1</sup> Refer to graduation requirements at the beginning of this section for details.

<sup>2</sup> Must be chosen with advisor's approval or from a departmentally approved list.

<sup>3</sup> Aerospace engineering will allow students to substitute two ENGR 250 courses (one of which must be ENGR 250P) to satisfy program engineering drawing-related requirements.

## Applied Learning

Students in the Bachelor of Science in aerospace engineering program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by completing the two-course capstone design sequence (8 credit hours) consisting of AE 528 and AE 628.