

# AEROSPACE SYSTEMS ENGINEERING, BS

## Bachelor of Science in Aerospace Systems Engineering (490005BS)

Completion of degree requirements for the Aerospace Systems Engineering program requires that students complete several required semester-long cooperative education assignments with corporations or governmental entities in the aerospace industry. Based on aerospace industry requirements for full-time and cooperative education placement, full admission to the Aerospace Systems Engineering program is limited to citizens or permanent resident aliens of the United States.

The following information has official approval of the **Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### 1st Year

Fall Semester		Hours
3150:151	Principles of Chemistry I <sup>1</sup>	3
3150:152	Principles of Chemistry I Laboratory	1
3300:111	English Composition I <sup>1,2</sup>	3
3450:221	Analytic Geometry-Calculus I <sup>1</sup>	4
4900:165	Tools for Aerospace Systems Engineering	2
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	16

### Spring Semester

3450:222	Analytic Geometry-Calculus II <sup>1</sup>	4
3650:291	Elementary Classical Physics I <sup>1</sup>	4
4900:166	Aerospace Systems Project Management	1
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	15

### 2nd Year

Fall Semester		Hours
3250:244	Introduction to Economic Analysis	3
3450:223	Analytic Geometry-Calculus III <sup>1</sup>	4
3650:292	Elementary Classical Physics II <sup>1</sup>	4
4300:201	Statics <sup>1</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	17

### Spring Semester

3450:335	Introduction to Ordinary Differential Equations	3
4300:202	Introduction to Mechanics of Solids	3

4400:307	Basic Electrical Engineering	4
4600:203	Dynamics <sup>1</sup>	3
4600:260	Engineering Analysis I	2
	Hours	15

### Summer Semester

4100:300	Cooperative Education Work Period	0
	Hours	0

### 3rd Year

#### Fall Semester

4600:300	Thermodynamics I	3
4600:310	Fluid Mechanics I	2
4600:360	Engineering Analysis II	2
4900:240	Aerospace Systems Engineering I	3
4900:336	Aerospace Structures	3
6200:201	Accounting Principles I	3
	Hours	16

#### Spring Semester

4100:301	Cooperative Education Work Period	0
	Hours	0

#### Summer Semester

4600:337	Design of Mechanical Components	3
4900:340	Avionics I	3
4900:380	Aerospace Materials	3
	Hours	9

### 4th Year

#### Fall Semester

4100:302	Cooperative Education Work Period	0
	Hours	0

#### Spring Semester

4600:315	Heat Transfer	3
4600:411	Compressible Fluid Mechanics	3
4600:413	Introduction to Aerodynamics	3
4600:483	Measurements Laboratory	2
4800:470	Human Factors Engineering	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	17

#### Summer Semester

4100:403	Cooperative Education Work Period	0
	Hours	0

### 5th Year

#### Fall Semester

4600:400	Thermal System Components	3
4600:412	Fundamentals of Flight	3
4600:414	Introduction to Aerospace Propulsion	3
4600:460	Concepts of Design	3
4900:320	Aerospace Systems Engineering II	3
	Hours	15

#### Spring Semester

4900:420	Object Oriented Design & Management	3
4900:440	Avionics II	3
4900:450	Aerospace Computations	3
4900:460	Aerospace Systems Manufacturing	3

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4900:490	Aerospace Design Project	2
	General Education or Honors Distribution <sup>4</sup>	3
	General Electives	2
	Hours	19
	Total Hours	139

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> The Mechanical Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.