

## ACADEMIC ADVISING

*Partnering with students to successfully navigate college*

**Location:** Main Hall 208

**Phone:** 719.255.3260

**Website:** [www.uccs.edu/advising](http://www.uccs.edu/advising)

**Connect With Your Advisor**

Current UCCS Students

- Appointments: [www.uccs.edu/advising/current-students](http://www.uccs.edu/advising/current-students)

Prospective Students: [www.uccs.edu/admissions/contact](http://www.uccs.edu/admissions/contact)

## GENERAL ACADEMIC INFORMATION

### Minimum Graduation Requirements

- 126 credit hours
- 2.0 CU cumulative GPA
- Residency: Last 30 credit hours of degree must be completed while registered in the College Engineering & Applied Science at UCCS

### Student Responsibilities

Students are required to know and follow:

- All academic policies set forth by the University, College, and academic department in the UCCS Catalog: [catalog.uccs.edu](http://catalog.uccs.edu)
- All course prerequisites designated by the University. Failure to meet course prerequisites may result in an administrative drop of the course from a student's schedule. See degree audit for course prerequisites within the academic major.

## DEGREE REQUIREMENTS

Explore Aerospace Engineering: [Mechanical and Aerospace Engineering - Bachelor of Science in Aerospace Engineering | College of Engineering and Applied Science \(uccs.edu\)](#)

Major Requirements			
Aerospace Engineering Core Courses (65 hours)	Course/Area	Course Title	Credit Hours
<ul style="list-style-type: none"> <li>• A minimum GPA of 2.0 must be maintained on all MAE course work.</li> </ul> <p><i>You must be admitted into the College of Engineering in order to take any MAE coursework.</i></p>	MAE 1503	Introduction to Engineering Design	3
	MAE 1602 <i>or</i> MAE 1502	Principles of Aerospace Engineering <i>or</i> Principles of Mechanical Engineering	3
	MAE 2055	Mech-Etronics I	4
	MAE 2103	Statics	3
	MAE 2104	Dynamics	3
	MAE 2200	Materials Engineering	3
	MAE 2301	Engineering Thermodynamics I	3
	MAE 3005	Engineering Measurement Lab	3
	MAE 3130	Fluid Mechanics	4
	MAE 3201	Mechanics of Materials	3
	MAE 3401	Modeling and Simulation of Dynamic Systems	3
	MAE 4000	Mechanical and Aerospace Engineering Seminar	1
	MAE 4021	Numerical Methods with MATLAB for Aerospace Engineering	3
	MAE 4135	Aerodynamics	3
	MAE 4261	Space Structures	3
	MAE 4316	Aerospace Propulsion	3
	MAE 4360	Aerospace Thermal Systems	3
	MAE 4410	Fundamentals of Astrodynamics	3
	MAE 4461	Attitude Determination and Control	3
	MAE 4470	Space Systems Engineering	3
MAE 4510	Engineering Design I ( <i>fall only</i> )	2	
MAE 4511	Engineering Design II ( <i>spring only</i> )	3	
<b>Technical Electives</b> (9 hours)	<i>Complete 9 credit hours of upper-division (3000+ level) technical electives.</i> <ul style="list-style-type: none"> <li>• 6 hours must be 4000-level</li> <li>• 6 hours must be from MAE courses</li> <li>• Courses from the following disciplines may be used for technical electives: Computer Science, Electrical Engineering, Mechanical Engineering, Math (with at least MATH 1350 as a prerequisite), Physics (with at least PES 1110 or MATH 1350 as a prerequisite), PES 2130.</li> </ul>		9
<b>Computing Course</b> (3 hours)	MAE 1090	Introduction to Structured Programming	3
<b>Business Course</b> (3 hours)	ENGR 3040	Engineering Ethics	3

## General Education and Elective Requirements

<b>Core Writing Requirement</b> (6 hours)	<ul style="list-style-type: none"> <li>ENGL 1310, 1308, or 1305 (<i>Students choosing ENGL 1305 must complete ENGL 1300 first.</i>)</li> <li><b>OR</b></li> <li>ENGL 1410</li> <li>TCID 2090</li> <li>Writing Portfolio – PORT 3000 (0 credits) or PORT 4000 (1 credit) or alternative – See Degree Audit</li> </ul>																				
<b>Mathematics</b> (18 hours)	<ul style="list-style-type: none"> <li>MATH 1350</li> <li>MATH 1360</li> <li>MATH 2350</li> <li>MATH 3130</li> <li>MATH 3400</li> </ul>																				
<b>Basic Science</b> (13 hours)	<ul style="list-style-type: none"> <li>CHEM 1401 &amp; 1402</li> <li>PES 1110</li> <li>PES 1120</li> </ul>																				
<b>Compass Curriculum</b> (9 hours)	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Component</th> <th style="text-align: center;">Course</th> </tr> </thead> <tbody> <tr> <td><b>Gateway Program Seminar</b></td> <td>GPS 1010</td> </tr> <tr> <td><b>Explore – Arts, Humanities and Cultures</b></td> <td>See Degree Audit (counts towards HUM/SS Electives)</td> </tr> <tr> <td><b>Explore – Society, Behavior and Health</b></td> <td>See Degree Audit (counts towards HUM/SS Electives)</td> </tr> <tr> <td><b>Explore – Physical and Natural World</b></td> <td>PES 1110 (included in Basic Science requirement)</td> </tr> <tr> <td><b>Navigate</b></td> <td>ENGR 3040</td> </tr> <tr> <td><b>Summit</b></td> <td>MAE 4511</td> </tr> <tr> <td><b>Writing Intensive Courses (WIC)</b> <i>Two courses with one upper-division (3000+ level)</i></td> <td> <ul style="list-style-type: none"> <li>MAE 3005</li> <li>MAE 3130</li> </ul> </td> </tr> <tr> <td><b>Inclusiveness</b></td> <td>MAE 1503</td> </tr> <tr> <td><b>Sustainability</b></td> <td>MAE 4360</td> </tr> </tbody> </table>	Component	Course	<b>Gateway Program Seminar</b>	GPS 1010	<b>Explore – Arts, Humanities and Cultures</b>	See Degree Audit (counts towards HUM/SS Electives)	<b>Explore – Society, Behavior and Health</b>	See Degree Audit (counts towards HUM/SS Electives)	<b>Explore – Physical and Natural World</b>	PES 1110 (included in Basic Science requirement)	<b>Navigate</b>	ENGR 3040	<b>Summit</b>	MAE 4511	<b>Writing Intensive Courses (WIC)</b> <i>Two courses with one upper-division (3000+ level)</i>	<ul style="list-style-type: none"> <li>MAE 3005</li> <li>MAE 3130</li> </ul>	<b>Inclusiveness</b>	MAE 1503	<b>Sustainability</b>	MAE 4360
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## FOUR-YEAR DEGREE PLAN

Please note that this is an *example* degree program and your program may vary. **Students are responsible for completing all course prerequisites.**

Year One	✓	FALL	Hours	✓	SPRING	Hours
			MAE 1602	3		MAE 1503
		MATH 1350	4		MATH 1360	4
		GPS 1010	3		PES 1120	4
		ENGL 1310	3		CHEM 1401	4
		PES 1110	4		CHEM 1402	1
		<b>TOTAL</b>	17		<b>TOTAL</b>	16

Year Two	✓	FALL	Hours	✓	SPRING	Hours
			MAE 1090	3		MAE 2104
		MAE 2055	4		MAE 2301	3
		MAE 2103	3		MATH 3130	3
		MAE 2200	3		MATH 3400	3
		MATH 2350	4		TCID 2090	3
		<b>TOTAL</b>	17		<b>TOTAL</b>	15

Year Three	✓	FALL	Hours	✓	SPRING	Hours
			MAE 3005	3		MAE 3130
		MAE 3201	3		MAE 4410	3
		MAE 3401	3		MAE 4470	3
		MAE 4021	3		MAE 4461	3
		Explore – Society, Behavior and Health course ( <i>Sustainability</i> )	3		Explore – Arts, Humanities and Cultures course	3
					PORT 3000	0
		<b>TOTAL</b>	15		<b>TOTAL</b>	16

Year Four	✓	FALL	Hours	✓	SPRING	Hours
			MAE 4000	1		MAE 4511 ( <i>spring only</i> )
		MAE 4135	3		MAE 4261	3
		MAE 4316	3		ENGR 3040	3
		MAE 4510 ( <i>fall only</i> )	2		Technical Elective	3
		MAE 4360	3		Technical Elective	3
		Technical Elective	3			
		<b>TOTAL</b>	15		<b>TOTAL</b>	15