

## 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
<i>You must be admitted into the College of Engineering in order to take any MAE coursework.</i>	MAE 1503	Introduction to Engineering Design	3
	MAE 1602	Principles of Aerospace 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 3302	Engineering Thermodynamics II	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 4316 <i>or</i> MAE 4391	Jet Propulsion <i>or</i> Rocket Propulsion	3
	MAE 4410	Fundamentals of Astrodynamics	3
	MAE 4470	Space Systems Engineering	3
	MAE 4510	Engineering Design I	2
	MAE 4511	Engineering Design II	3
	MAE xxxx (TBD)	Aerospace Thermal Systems	3
MAE xxxx (TBD)	Attitude Determination and Control	3	
MAE xxxx (TBD)	Space Structures	3	
<b>Technical Electives</b> (9 hours)	<i>Complete 9 credit hours of upper-division (3000+ level) technical electives.</i>		12
	<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>		
<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>TCID 2090</li> <li>PORT 3000 (0 Credits) – Writing Portfolio Assessment</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 1401/1402</li> <li>PES 1110</li> <li>PES 1120</li> </ul>	
<b>Compass Curriculum</b> (9 hours) <ul style="list-style-type: none"> <li>Explore and Navigate courses must be outside major requirements</li> <li>Writing Intensive, Inclusiveness, and Sustainability courses can count towards other requirements within degree</li> </ul>	<b>Component</b>	<b>Course</b>
	<b>Gateway</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 3130</li> <li>MAE xxxx (Aerospace Thermal Systems)</li> </ul>
	<b>Inclusiveness</b>	MAE 1503
<b>Sustainability</b>	MAE xxxx (Aerospace Thermal Systems)	

## 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 xxxx (Attitude Determination and Control)	3
		Explore – Society, Behavior and Health course	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 (Spring only)
		MAE 4135	3		MAE xxxx (Space Structures)	3
		MAE 4316	3		ENGR 3040	3
		MAE 4510 (Fall only)	2		Technical Elective	3
		MAE xxxx (Aerospace Thermal Systems)	3		Technical Elective	3
		Technical Elective	3			
		<b>TOTAL</b>	15		<b>TOTAL</b>	15