

ACADEMIC ADVISING

Partnering with students to successfully navigate college

Location: Main Hall 208

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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
- 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"> • A minimum GPA of 2.0 must be maintained on all MAE course work. <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	2	
MAE 4511	Engineering Design II	3	
Technical Electives (9 hours)	<i>Complete 9 credit hours of upper-division (3000+ level) technical electives.</i> <ul style="list-style-type: none"> • 6 hours must be 4000-level • 6 hours must be from MAE courses • 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. 		9
Computing Course (3 hours)	MAE 1090	Introduction to Structured Programming	3
Business Course (3 hours)	ENGR 3040	Engineering Ethics	3

General Education and Elective Requirements

Core Writing Requirement (6 hours)	<ul style="list-style-type: none"> ENGL 1310, 1308, or 1305 (<i>Students choosing ENGL 1305 must complete ENGL 1300 first.</i>) OR <ul style="list-style-type: none"> ENGL 1410 TCID 2090 PORT 3000 (0 Credits) – Writing Portfolio Assessment 																				
Mathematics (18 hours)	<ul style="list-style-type: none"> MATH 1350 MATH 1360 MATH 2350 MATH 3130 MATH 3400 																				
Basic Science (13 hours)	<ul style="list-style-type: none"> CHEM 1401 & 1402 PES 1110 PES 1120 																				
Compass Curriculum (9 hours) <ul style="list-style-type: none"> Explore and Navigate courses must be outside major requirements Writing Intensive, Inclusiveness, and Sustainability courses can count towards other requirements within degree 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Component</th> <th style="width: 50%;">Course</th> </tr> </thead> <tbody> <tr> <td>Gateway Program Seminar</td> <td>GPS 1010</td> </tr> <tr> <td>Explore – Arts, Humanities and Cultures</td> <td>See Degree Audit (counts towards HUM/SS Electives)</td> </tr> <tr> <td>Explore – Society, Behavior and Health</td> <td>See Degree Audit (counts towards HUM/SS Electives)</td> </tr> <tr> <td>Explore – Physical and Natural World</td> <td>PES 1110 (included in Basic Science requirement)</td> </tr> <tr> <td>Navigate</td> <td>ENGR 3040</td> </tr> <tr> <td>Summit</td> <td>MAE 4511</td> </tr> <tr> <td>Writing Intensive Courses (WIC) <i>Two courses with one upper-division (3000+ level)</i></td> <td> <ul style="list-style-type: none"> MAE 3005 MAE 3130 </td> </tr> <tr> <td>Inclusiveness</td> <td>MAE 1503</td> </tr> <tr> <td>Sustainability</td> <td>See Degree Audit</td> </tr> </tbody> </table>	Component	Course	Gateway Program Seminar	GPS 1010	Explore – Arts, Humanities and Cultures	See Degree Audit (counts towards HUM/SS Electives)	Explore – Society, Behavior and Health	See Degree Audit (counts towards HUM/SS Electives)	Explore – Physical and Natural World	PES 1110 (included in Basic Science requirement)	Navigate	ENGR 3040	Summit	MAE 4511	Writing Intensive Courses (WIC) <i>Two courses with one upper-division (3000+ level)</i>	<ul style="list-style-type: none"> MAE 3005 MAE 3130 	Inclusiveness	MAE 1503	Sustainability	See Degree Audit
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Sustainability	See Degree Audit																				

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
		TOTAL	17		TOTAL	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
		TOTAL	17		TOTAL	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
		TOTAL	15		TOTAL	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			
		TOTAL	15		TOTAL	15