

## ACADEMIC ADVISING

*Partnering with students to successfully navigate college*

**Location:** Main Hall 208

**Phone:** 719.255.3260

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

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Current UCCS Students

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

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## GENERAL ACADEMIC INFORMATION

### Minimum Graduation Requirements

- 127 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 Mechanical Engineering: [Mechanical and Aerospace Engineering- Bachelor of Science in Mechanical Engineering | College of Engineering and Applied Science \(uccs.edu\)](http://www.uccs.edu/mechanical-engineering)

Major Requirements			
Mechanical Engineering Core Courses (60 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 1502 <i>or</i> MAE 1602	Principles of Mechanical Engineering <i>or</i> Principles of Aerospace Engineering	3
	MAE 1503	Intro to Engineering Design	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 Measurements Lab	3
	MAE 3130	Fluid Mechanics	4
	MAE 3201	Mechanics of Materials	3
	MAE 3302	Engineering Thermodynamics II	3
	MAE 3401	Modeling & Simulation of Dynamic Systems	3
	MAE 3501	Machine Design I	3
	MAE 4000	Mechanical and Aerospace Engineering Seminar	1
	MAE 4020	Numerical Methods with MATLAB	3
	MAE 4120	Machine Design II	3
	MAE 4310	Heat Transfer	4
	MAE 4421	Automatic Control of Aerospace & Mechanical Systems	3
	MAE 4510	Engineering Design I	2
	MAE 4511	Engineering Design II	3
<b>Technical Electives</b> (12 hours)  <b>NOTE:</b> MAE 3342 Engineering Economy can be counted as a business <b>OR</b> a technical elective.	Complete 12 credit hours of upper-division (3000+ level) technical electives. <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>		12
<b>Computing Course</b> (3 hours)	MAE 1090	Introduction to Structured Programming	3
<b>Business Courses</b> (6 hours)	ENGR 3040	Engineering Ethics	3
	Business Elective	Complete one course from the following: BLAW 2000, 2010, MAE 3342, MKTG 3000, MGMT 3300	3

## General Education and Elective Requirements

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></ul> <b>OR</b> <ul style="list-style-type: none"><li>ENGL 1410</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</b> – Arts, Humanities and Cultures	See Degree Audit (counts towards HUM/SS Electives)
	<b>Explore</b> – Society, Behavior and Health	See Degree Audit (counts towards HUM/SS Electives)
	<b>Explore</b> – Physical and Natural World	PES 1110
	<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 4310</li></ul>
	<b>Inclusiveness</b>	MAE 1503
	<b>Sustainability</b>	MAE 3302

## 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 1502	3		MAE 1503	3
		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	3
		MAE 2103	3		MAE 2301	3
		MAE 2055	4		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	4
		MAE 3201	3		MAE 3501	3
		MAE 3302	3		MAE 4421	3
		MAE 3401	3		Technical Elective	3
		MAE 4020	3		Explore – Society, Behavior, and Health Course	3
		<b>TOTAL</b>	15		PORT 3000	0
					<b>TOTAL</b>	16

Year Four	✓	FALL	Hours	✓	SPRING	Hours
		MAE 4000	1		MAE 4511 (Spring only)	3
		MAE 4120	3		Technical Elective	3
		MAE 4310	4		Technical Elective	3
		MAE 4510 (Fall only)	2		Explore – Arts, Humanities & Cultures Course	3
		Technical Elective	3		Business Elective	3
		ENGR 3040	3			
		<b>TOTAL</b>	16		<b>TOTAL</b>	15