

# DATA ANALYTICS & SYSTEMS ENGINEERING B.S

## ACADEMIC ADVISING

*Partnering with students to successfully navigate college*

**Location:** Main Hall 208

**Phone:** 719.255.3260

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

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

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## GENERAL ACADEMIC INFORMATION

### Minimum Graduation Requirements

- 128 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 Data Analytics and Systems Engineering (DASE): [Home | Bachelor of Science in Data Analytics and Systems Engineering \(uccs.edu\)](http://www.uccs.edu/bachelor-of-science-in-data-analytics-and-systems-engineering)

Major Requirements			
DASE Required Courses (35 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 courses taken toward the major.</li> </ul> <p>Pre-requisites will not be waived. Plan sequences accordingly using electives to take pre-requisites when necessary.</p> <p><i>You must be admitted into the College of Engineering in order to take any CS, MAE, ECE, or ENGR coursework.</i></p>	DASE 1011	Introduction to Data Analytics and System Engineering	3
	DASE/CS 1150	Principles of Computer Science	3
	DASE/CS 1450	Data Structure and Algorithms	3
	DASE 2020	Introduction to Statistics for Data Analytics	3
	DASE 2021	Computer Based Modeling in C	3
	DASE/CS 2080	Programing with Unix	3
	DASE 3030 <b>or</b> MGMT 3300	Project Management <b>or</b> Introduction to Management and Organization	3
	DASE/CS 3050	Social & Ethical Implications for DASE	1
	DASE/CS 3080	Programing Languages for Data Analytics	3
	DASE/CS 3300	Software Engineering	3
	DASE 4460	Intelligent Robotics	3
	ECE 4890 <b>or</b> 4891	Senior Seminar	1
ECE 4899	Senior Design Project	3	
<b>DASE Required Track</b> (18 hours) <p>DASE students are required to pick one of the tracks listed as part of their degree program.</p>	Data Analytics Track	<i>Complete 18 credit hours from the courses listed below.</i> DASE 4210, 4310, 4410, 4420, 4435, 4440, 4470, 4510, 4540, 4570, 4710, 4820, 4860, 4870, 4890	18
	Systems Engineering Track	<i>Complete 18 credit hours from the courses listed below.</i> DASE 2030, 4000, 4030, 4570, 4910, ECE 2205, 2610, 3003, 3210, MAE 2055, 3342, 3401, 4421, 4425	18
	General Track	<i>Complete 9 hours from each of the Data Analytics and Systems Engineering Tracks above.</i>	18
<b>Technical Electives</b> (9 hours)	Technical Electives	<i>Complete 9 hours of any 3000+ level courses offered by the College of Engineering and Applied Science.</i>	9

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## General Education and Elective Requirements

<b>Core Writing Requirement</b> (6 hours)	<ul style="list-style-type: none"> <li>ENGL 1310 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</li> </ul>	
<b>Mathematics</b> (21 hours)	<ul style="list-style-type: none"> <li>MATH 1350</li> <li>MATH 1360</li> <li>MATH 2350</li> <li>CS 2150</li> <li>CS 2300</li> <li>ECE 3610 <b>OR</b> MATH 3810</li> </ul>	
<b>Basic Science</b> (11 hours)	<ul style="list-style-type: none"> <li>PES 1110</li> <li>7 hours – see degree audit for course options</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
	<b>Explore – Society, Behavior and Health</b>	See Degree Audit
	<b>Explore – Physical and Natural World</b>	PES 1110 (included in Basic Science requirement)
	<b>Navigate</b>	See Degree Audit
	<b>Summit</b>	ECE 4890/4899
	<b>Writing Intensive Courses (WIC)</b> <i>Two courses with one upper-division (3000+ level)</i>	See Degree Audit
<b>Inclusiveness</b>	See Degree Audit	
<b>Sustainability</b>	See Degree Audit	
<b>Open Electives</b> (19 hours)	Complete open electives to fulfill the total hours requirement for the degree program. The chosen course(s) can be selected from any discipline but may not include any math course below MATH 1350. Only 3 credit hours of CS course work numbered below CS 1150 may count towards Electives.	

## 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
			DASE 1011	3		DASE 2021
		DASE/CS 1150	3		DASE/CS 1450	3
		ENGL 1310	3		TCID 2090	3
		GPS 1010	3		MATH 1360	4
		MATH 1350	4		PES 1110	4
		<b>TOTAL</b>	<b>16</b>		<b>TOTAL</b>	<b>17</b>

Year Two	✓	FALL	Hours	✓	SPRING	Hours
			CS 2150	3		DASE/CS 2080
		CS 2300	3		DASE/CS 3050	1
		DASE 2020	3		DASE/CS 3080	3
		Explore – Arts, Humanities & Cultures Course	3		ECE 3610 (Spring Only) <b>OR</b> MATH 3810	3
		MATH 2350	4		Explore – Society, Behavior & Health	3
					Basic Science Elective	4
		<b>TOTAL</b>	<b>16</b>		<b>TOTAL</b>	<b>17</b>

Year Three	✓	FALL	Hours	✓	SPRING	Hours
			DASE 3030 <b>or</b> MGMT 3300	3		DASE 4460
		DASE/CS 3300	3		DASE Track Course	3
		DASE Track Course	3		Technical Elective	3
		Open Elective ( <i>Writing Intensive</i> )	3		Open Elective ( <i>Navigate</i> )	3
		Basic Science Elective	3		Open Elective ( <i>Inclusiveness</i> )	3
					PORT 3000	0
		<b>TOTAL</b>	<b>15</b>		<b>TOTAL</b>	<b>15</b>

Year Four	✓	FALL	Hours	✓	SPRING	Hours
			ECE 4890	1		ECE 4899
		DASE Track Course	3		DASE Track Course	3
		DASE Track Course	3		DASE Track Course	3
		Technical Elective	3		Technical Elective	3
		Open Elective ( <i>Writing Intensive</i> )	3		Open Elective	4
		Open Elective ( <i>Sustainability</i> )	3			
		<b>TOTAL</b>	<b>16</b>		<b>TOTAL</b>	<b>16</b>