

DATA ANALYTICS & SYSTEMS ENGINEERING B.S

ACADEMIC ADVISING

Partnering with students to successfully navigate college

Location: Main Hall 208
Phone: 719.255.3260
Website: www.uccs.edu/advising

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Current UCCS Students

- Appointments: www.uccs.edu/advising/current-students
- Drop In Advising: Most Wednesdays, 1:00pm - 4:00pm

Prospective Students: www.uccs.edu/admissions/contact

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements

1. 128 credit hours
2. 2.0 CU cumulative GPA
3. 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:

1. All academic policies set forth by the University, College, and academic department in the UCCS Catalog: catalog.uccs.edu
2. 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.

MAJOR INFORMATION

Data Analytics and Systems Engineering (DASE) is a multidisciplinary degree program focused on learning algorithms and analytics designed to synthesize answers from "big data" sets, as well as applying mathematical methods and models to data challenges in a variety of industries. DASE engineers could work in telecommunications, entertainment, healthcare, shipping, electronics, or manufacturing – any industry that requires continuous improvement in quality and productivity.

Major Requirements			
DASE Required Courses (34 hours)	Course/Area	Course Title	Credit Hours
Pre-requisites will not be waived, plan sequences accordingly using electives to take pre-requisites when necessary. You must be admitted into the College of Engineering in order to take any CS, MAE, ECE, or ENGR coursework.	DASE 1011	Introduction to Data Analytics and System Engineering	3
	DASE 1021	Engineering Complex Systems	3
	DASE 1150	Principles of Computer Science	3
	DASE 1450	Data Structure and Algorithms	3
	DASE 2020	Computational Statistics	3
	DASE 2080	Programing with Unix	2
	DASE 3030	Project Management	3
	DASE 3050	Social & Ethical Implications for DASE	1
	DASE 3080	Programing Languages for Data Analytics	3
	DASE 3300	Software Engineering	3
	DASE 4460	Intelligent Robotics	3
	ECE 4890	Senior Seminar	1
	ECE 4899	Senior Project	3
DASE Required Track (18 hours)	Data Analytics Track	Complete 18 credit hours from the courses listed below. DASE 4210, 4310 4410, 4420, 4435, 4440, 4470, 4510, 4540, 4570, 4710, 4820, 4860, 4870, 4890	18
	Systems Engineering Track	Complete 18 credit hours from the courses listed below. DASE 2030, 4000, 4030, 4570, 4910, ECE 2205, 2610, 3003, 3210, MAE 2055, 3342, 3401, 4421, 4425	18
	General Track	Complete 9 hours from each of the Data Analytics and Systems Engineering Tracks above.	18
Technical Electives (9 hours)	Technical Electives	Complete 9 hours of any 3000+ level courses offered by the College of Engineering and Applied Science.	9

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General Education and Elective Requirements																					
Composition (6 hours)	<ol style="list-style-type: none"> ENGL 1310 TCID 2090 PORT 3000 (0 Credits) – Writing Portfolio 																				
Mathematics (17 hours)	<ol style="list-style-type: none"> MATH 1350 MATH 1360 CS 2150 CS 2300 ECE 3610 OR MATH 3810 																				
Basic Science (11 hours)	<ol style="list-style-type: none"> PES 1110 7 hours – see degree audit for course options 																				
Compass Curriculum (12 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"> <thead> <tr> <th>Component</th> <th>Course</th> </tr> </thead> <tbody> <tr> <td>Gateway</td> <td>GPS 1010</td> </tr> <tr> <td>Explore – Arts, Humanities and Cultures</td> <td>See Degree Audit</td> </tr> <tr> <td>Explore – Society, Behavior and Health</td> <td>See Degree Audit</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>See Degree Audit</td> </tr> <tr> <td>Summit</td> <td>ECE 4890/4899</td> </tr> <tr> <td>Writing Intensive Courses (WIC) <i>Two courses with one upper-division (3000+ level)</i></td> <td> <ol style="list-style-type: none"> See Degree Audit See Degree Audit </td> </tr> <tr> <td>Inclusiveness</td> <td>See Degree Audit</td> </tr> <tr> <td>Sustainability</td> <td>See Degree Audit</td> </tr> </tbody> </table>	Component	Course	Gateway	GPS 1010	Explore – Arts, Humanities and Cultures	See Degree Audit	Explore – Society, Behavior and Health	See Degree Audit	Explore – Physical and Natural World	PES 1110 (included in Basic Science requirement)	Navigate	See Degree Audit	Summit	ECE 4890/4899	Writing Intensive Courses (WIC) <i>Two courses with one upper-division (3000+ level)</i>	<ol style="list-style-type: none"> See Degree Audit See Degree Audit 	Inclusiveness	See Degree Audit	Sustainability	See Degree Audit
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Open Electives (21 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. Some possible topics are listed below:																				

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 1020
		DASE 1150	3		DASE 1450	3
		ENGL 1310	3		TCID 2090	3
		GPS 1010	3		MATH 1360	4
		MATH 1350	4		PES 1110	4
		TOTAL	16		TOTAL	17

Year Two	✓	FALL	Hours	✓	SPRING	Hours
			CS 2150	3		DASE 2080
		CS 2300	3		DASE 3050	1
		DASE 2020	3		DASE 3080	3
		Explore – Arts, Humanities & Cultures Course	3		ECE 3610 (Spring Only) OR MATH 3810	3
		Science Elective	4		Explore – Society, Behavior & Health	3
					Science Elective	3
		TOTAL	16		TOTAL	15

Year Three	✓	FALL	Hours	✓	SPRING	Hours
			DASE 3030	3		DASE 4460
		DASE 3300	3		DASE Track Course	3
		DASE Track Course	3		Navigate Course	3
		Open Elective (Sustainability)	3		Technical Elective	3
		Open Elective (Writing Intensive)	3		Open Elective (Inclusiveness)	3
		Open Elective	3		PORT 3000	0
		TOTAL	18		TOTAL	15

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 (Writing Intensive)	3		Open Elective	3
		Open Elective	3			
		TOTAL	16		TOTAL	15