



COLLEGE OF AEROSPACE, COMPUTING, ENGINEERING, AND DESIGN

Data Science and Machine Learning Major (2024-2025 Catalog Year)

First Year		
Fall: 14 Credits	CS 1050: Computer Science I	4
	MTH 1410: Calculus I	4
	ENG1010: Composing Arguments	3
	COMM 1010: Presentational Speaking or COMM 1100: Fundamentals of Oral Communication	3
		14
Spring: 14 Credits	CS 2050: Computer Science II	4
	MTH 3210: Probability and Statistics	4
	JMP 2610: Intro to Technical Writing	3
	ENG 1020: Written Communication	3
		14

Third Year		
Fall: 14-16 Credits	CS 3810: Principles of Database Systems	4
	MTH 3220: Statistical Methods	4
	Nat'l. Phy. Sci, See Accepted Science Courses in Major Req.	3-5
	Free Elective	3-4
		14-17
Spring: 15 Credits	DSML 4220: Deep Learning	4
	DS/ML Upper Division Elective	4
	Free Elective	3-4
	Free Elective	3-4
		14-16

Second Year		
Fall: 14 Credits	CS 3250: Introduction to Software Development and Tools	4
	MTH 3130: Applied Methods in Linear Algebra	4
	Social and Behavioral Science + Global Diversity	3
	PHI 3370: Computers, Ethics, and Society	3
	Free Elective	3-4
		17-18
Spring: 14-16 Credits	CS 3120: Machine Learning	4
	MTH 3270: Data Science	4
	Nat'l. Phy. Sci, See Accepted Science Courses in Major Req.	3-5
	Historical + ESSJ	3
		14-16

Fourth Year		
Fall: 15 Credits	DSML 3850: Cloud Computing	4
	DS/ML Upper Division Elective	4
	Art and Humanities General Studies Requirement	3
	Free Elective (ideally a discipline where DSML can be applied)	3-4
		14-15
Spring: 14-16 Credits	DSML 4360: Senior Experience	4
	Social and Behavioral Science General Studies Requirement	3
	Free Elective (ideally a discipline where DSML can be applied)	3-4
	Free Elective	3-4
	13-15	

1. This is not the only ordering of classes, but classes must be taken in an order that satisfies the prerequisites for subsequent classes.
2. All Prerequisite and Major/Minor/ Ancillary courses require a C- or greater.
3. A minimum of 6 credits are needed to meet the Science Requirement.
4. Take Free Electives as needed to meet the total 120 credit requirement.
5. Because of the interdisciplinary nature of DS, it is recommended that some electives are chosen in a field where DS can be applied