

DATA ANALYSIS BREADTH ELECTIVES (CHOOSE 3)

Course #	Course Name	Credits	Semester	Required Co- or Pre-Requisites (C minimum grade needed)
CS 3540	Human/Computer Interaction	3	Fall	CS 2420 AND Full Major Status
CS 4300	Artificial Intelligence	3	Spring	CS 4150, MATH 3070, AND Full Major Status
CS 4640	Image Processing Basics	3	Fall	CS 2420 AND Full Major Status
CS 5150	Advanced Algorithms	3	Fall	CS 4150 AND Full Major Status
CS 5340	Natural Language Processing	3	Fall	CS 3505, CS 3100, AND Full Major Status
CS 5635	Visualization for Scientific Data	3	Spring	CS 3500 AND Full Major Status
CS 6190	Probabilistic Machine Learning	3	Spring	<i>This is a graduate-level course and requires instructor approval</i>
CS 6530	Advanced Database Systems	3	Varies	<i>This is a graduate-level course and requires instructor approval</i>
CS 6640	Introduction to Digital Image Processing	3	Fall	<i>This is a graduate-level course and requires instructor approval</i>
MATH 5010	Introduction to Probability	3	Fall/Spring/Summer	(MATH 1320 AND 2310) OR 2210 OR 1260 OR 1321 OR 3140
MATH 5040	Stochastic Processes and Simulation I	3	Fall	MATH 5010
MATH 5080	Statistical Inference I	3	Fall/Spring	MATH 5010
MATH 5090	Statistical Inference II	3	Fall/Spring	MATH 5080
MATH 5770	Intro to Optimization	3	Fall	MATH 2270