MAJOR IN DATA SCIENCE, ECONOMICS CONCENTRATION

Major Completion Map

Freshman

Semester 1		**Critical**	**Recommended**	**AUCC**	**Credits**
CO 150	College Composition (GT-CO2)			1A	3
CS 150B	Culture and Coding: Python (GT-AH3)			3B	3
DSCI 100	First Year Seminar in Data Science				1
ECON 202	Principles of Microeconomics (GT-SS1)			3C	3
MATH 156	Mathematics for Computational Science I (GT-MA1)			1B	4
	Total Credits				**14**
Semester 2		**Critical**	**Recommended**	**AUCC**	**Credits**
CS 164	CS1--Computational Thinking with Java				4
DSCI 369	Linear Algebra for Data Science				4
ECON 204	Principles of Macroeconomics (GT-SS1)			3C	3
STAT 158	Introduction to R Programming				1
STAT 315	Intro to Theory and Practice of Statistics				3
	Total Credits				**15**

Sophomore

Semester 3		**Critical**	**Recommended**	**AUCC**	**Credits**
CS 165	CS2--Data Structures				4
CS 220	Discrete Structures and their Applications		X		4
ECON 306	Intermediate Microeconomics				3
STAT 341	Statistical Data Analysis I				3
	Total Credits				**14**
Semester 4		**Critical**	**Recommended**	**AUCC**	**Credits**
DSCI 235	Data Wrangling				2
ECON 211	Gender in the Economy (GT-SS1)			1C	3
ECON 304	Intermediate Macroeconomics				3
MATH 151	Mathematical Algorithms in Matlab I				1
MATH 256	Mathematics for Computational Science II				4
STAT 342	Statistical Data Analysis II				3
	Total Credits				**16**

Junior

Semester 5		**Critical**	**Recommended**	**AUCC**	**Credits**
DSCI 320	Optimization Methods in Data Science				3
ECON 335/ AREC 335	Introduction to Econometrics				3
Select one course from the following:					3
CO 300	Writing Arguments (GT-CO3)			2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)			2	
CO 302	Writing in Digital Environments (GT-CO3)			2	
JTC 300	Strategic Writing and Communication (GT-CO3)			2	
Biological and Physical Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#biological-physical-sciences)				3A	3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)				3D	3
	Total Credits				**15**

Semester 6		Critical	Recommended	AUCC	Credits
CS 201/PHIL 201	Ethical Computing Systems (GT-AH3)			3B	3
DSCI 335	Inferential Reasoning in Data Analysis				3
DSCI 336	Data Graphics and Visualization				1
ECON 435	Intermediate Econometrics				3
Economics Elective (See List on Concentration Requirements Tab)			X		6
	Total Credits				**16**

Senior

Semester 7		Critical	Recommended	AUCC	Credits
DSCI 445	Statistical Machine Learning			4B	3
Data Science Electives (See List on Concentration Requirements Tab)					9
Biological and Physical Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#biological-physical-sciences)				3A	4
	Total Credits				**16**

Semester 8		Critical	Recommended	AUCC	Credits
DSCI 478	Capstone Group Project in Data Science	X		4A,4C	4
Elective		X			10
The benchmark courses in the 8th semester are the remaining courses in the entire program of study.		X			
	Total Credits				**14**
	Program Total Credits:				**120**