

# MAJOR IN WATERSHED SCIENCE AND SUSTAINABILITY, WATERSHED DATA CONCENTRATION

courses (MATH 117, MATH 118, MATH 124, MATH 125, MATH 126) prior to the courses listed in this plan.

## Major Completion Map

**Distinctive Requirements for Degree Program:** This program assumes that students will either test out of or take the prerequisite Mathematics

### Freshman

Semester 1		Critical	Recommended	AUCC	Credits
CHEM 107 or 111	Fundamentals of Chemistry (GT-SC2) General Chemistry I (GT-SC2)	X		3A	4
CO 150	College Composition (GT-CO2)	X		1A	3
MATH 155 or 160	Calculus for Biological Scientists I (GT-MA1) Calculus for Physical Scientists I (GT-MA1)	X		1B	4
WR 204/GR 204	Sustainable Watersheds (GT-SC2)	X		3A	3
<b>Total Credits</b>					<b>14</b>

Semester 2		Critical	Recommended	AUCC	Credits
CS 150B	Culture and Coding: Python (GT-AH3)			3B	3
STAT 158	Introduction to R Programming	X			1
	Select 4 credits from the following:	X			4
BZ 110 & BZ 111	Principles of Animal Biology (GT-SC2)			3A	
BZ 120	Principles of Plant Biology (GT-SC1)			3A	
	Select one course from the following:	X			3-4
ESS 210/GR 210	Physical Geography				
GEOL 110	Introduction to Geology-Parks and Monuments (GT-SC2)			3A	
GEOL 120	Exploring Earth - Physical Geology (GT-SC2)			3A	
GEOL 122	The Blue Planet - Geology of Our Environment (GT-SC2)			3A	
GEOL 124	Geology of Natural Resources (GT-SC2)			3A	
GEOL 150	Physical Geology for Scientists and Engineers			3A	
	Diversity, Equity, and Inclusion ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion</a> )		X	1C	3
	Electives		X		3
<b>Total Credits</b>					<b>17-18</b>

### Sophomore

Semester 3		Critical	Recommended	AUCC	Credits
CS 220	Discrete Structures and their Applications				4
PH 121 or 141	General Physics I (GT-SC1) Physics for Scientists and Engineers I (GT-SC1)	X		3A	5
STAT 301 or 315	Introduction to Applied Statistical Methods Intro to Theory and Practice of Statistics	X			3
	Electives		X		3
<b>Total Credits</b>					<b>15</b>

Semester 4		Critical	Recommended	AUCC	Credits
DSCI 369	Linear Algebra for Data Science	X		3C	4
NR 322	Intro. to Geographic Information Systems	X			4
SOCR 240	Introductory Soil Science	X			4

Social and Behavioral Sciences ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences</a> )		X	3C	3
WR 204/GR 204 must be completed by the end of Semes		X		
<b>Total Credits</b>				<b>15</b>
<b>Semester 5</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>
NR 220	Natural Resource Ecology and Measurements	X		5
<b>Total Credits</b>				<b>5</b>
<i>Junior</i>				
<b>Semester 6</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>
STAT 341	Statistical Data Analysis I	X		3
WR 416	Land Use Hydrology	X	4B	3
WR 474	Snow Hydrology	X		3
WR 486	Watershed Field Practicum	X		2
Select one course from the following:		X		3
CO 301B	Writing in the Disciplines: Sciences (GT-C03)		2	
JTC 300	Strategic Writing and Communication (GT-C03)		2	
LB 300	Specialized Professional Writing		2	
<b>Total Credits</b>				<b>14</b>
<b>Semester 7</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>
AREC 342	Water Law, Policy, and Institutions	X		3
DSCI 335	Inferential Reasoning in Data Analysis	X		3
WR 418	Land Use and Water Quality	X		3
Watershed Science Department List (see list on Concentration Requirements tab)			X	3
Historical Perspectives ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives</a> )			X	3
<b>Total Credits</b>				<b>15</b>
<i>Senior</i>				
<b>Semester 8</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>
WR 417	Watershed Measurements	X		3
Data Science Electives (see list on Concentration Requirements tab)			X	3
Watershed Science Department List (see list on Concentration Requirements tab)			X	3
Electives				3-4
<b>Total Credits</b>				<b>12-13</b>
<b>Semester 9</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>
WR 440	Watershed Problem Analysis	X		4A,4B,4C
Watershed Science Department List (see list on Concentration Requirements tab)				3
Arts and Humanities ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities</a> )			X	3B
Electives			X	3
The benchmark courses for the 9th semester are the remaining courses in the entire program of study.		X		
<b>Total Credits</b>				<b>12</b>
<b>Program Total Credits:</b>				<b>120</b>