

# MAJOR IN ECOSYSTEM SCIENCE AND SUSTAINABILITY

## Major Completion Map

### Freshman

Semester 1		Critical	Recommended	AUCC	Credits
ESS 120	Intro to Ecosystem and Watershed Sciences	X			1
ESS 129	Information Management for Sustainability	X			1
Select one group from the following:		X			4
Group A:					
BZ 110	Principles of Animal Biology (GT-SC2)			3A	
BZ 111	Animal Biology Laboratory (GT-SC1)			3A	
Group B:					
LIFE 102	Attributes of Living Systems (GT-SC1)			3A	
Select one course from the following:		X			3-4
AB 111	Feeding the World in a Changing Climate (GT-SC2)			3A	
ATS 150	Science of Global Climate Change (GT-SC2)			3A	
GES 101	Foundations of Environmental Sustainability				
NR 120A	Environmental Conservation (GT-SC2)			3A	
Arts and Humanities ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-and-humanities">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-and-humanities</a> )			X	3B	3

Total Credits					12-13
Semester 2		Critical	Recommended	AUCC	Credits
CO 150	College Composition (GT-CO2)	X		1A	3
ESS 130	Intro to Systems Theory for Sustainability	X			1
Select one group from the following:		X			5
Group A:					
CHEM 107	Fundamentals of Chemistry (GT-SC2)			3A	
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)			3A	
Group B:					
CHEM 111	General Chemistry I (GT-SC2)			3A	
CHEM 112	General Chemistry Lab I (GT-SC1)			3A	
Select one course from the following:		X			4
MATH 155	Calculus for Biological Scientists I (GT-MA1)			1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)			1B	
Select one course from the following:		X			3
ANTH 100	Introductory Cultural Anthropology (GT-SS3)			3C	
AREC 202	Agricultural and Resource Economics (GT-SS1)			3C	
<b>AREC 240/ ECON 240</b>	<b>Economics of Environmental Sustainability (GT-SS1)</b>			<b>3C</b>	
ECON 202	Principles of Microeconomics (GT-SS1)			3C	
ECON 204	Principles of Macroeconomics (GT-SS1)			3C	
POLS 101	American Government and Politics (GT-SS1)			3C	
POLS 103	State and Local Government and Politics (GT-SS1)			3C	
SOC 100	Introduction to Sociology (GT-SS3)			3C	
SOC 105	Social Problems (GT-SS3)			3C	

CO 150, and AUCC 1B (Quantitative Reasoning) must be completed by the end of Semester 2. X

**Total Credits** **16**

### *Sophomore*

**Semester 3** **Critical** **Recommended** **AUCC** **Credits**

**ESS 210/GR 210 Physical Geography** **X** **3**

Select one course from the following: **X** **4**

BZ 120 Principles of Plant Biology (GT-SC1) 3A

LIFE 103 Biology of Organisms-Animals and Plants (GT-SC1) 3A

Diversity, Equity, and Inclusion (<http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion>) **X** **1C** **3**

Electives **X** **4**

MATH 155 or MATH 160 must be completed by the end of Semester 3. **X**

**Total Credits** **14**

**Semester 4** **Critical** **Recommended** **AUCC** **Credits**

LIFE 320 Ecology **X** **3**

Select one course from the following: **X** **5**

PH 121 General Physics I (GT-SC1) 3A

PH 141 Physics for Scientists and Engineers I (GT-SC1) 3A

Select one course from the following: **X** **3**

STAT 301 Introduction to Applied Statistical Methods

STAT 307 Introduction to Biostatistics

Arts and Humanities (<http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-and-humanities>) **X** **3B** **3**

**Total Credits** **14**

### *Junior*

**Semester 5** **Critical** **Recommended** **AUCC** **Credits**

ESS 311 Ecosystem Ecology **X** **3**

NR 319 Introduction to Geospatial Science **X** **4**

**WR 204/GR 204 Sustainable Watersheds (GT-SC2)** **X** **3A** **3**

Historical Perspectives (<http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives>) **X** **3D** **3**

Electives **X** **3**

**Total Credits** **16**

**Semester 6** **Critical** **Recommended** **AUCC** **Credits**

ESS 312 Sustainability Science **X** **3**

ESS 320 Internship and Career Preparation **X** **1**

ESS 330 Quantitative Reasoning for Ecosystem Science **X** **3**

Select one course from the following: **X** **3**

CO 301B Writing in the Disciplines: Sciences (GT-CO3) 2

CO 301C Writing in the Disciplines: Social Sciences (GT-CO3) 2

JTC 300 Strategic Writing and Communication (GT-CO3) 2

LB 300 Specialized Professional Writing 2

Electives **X** **5**

**Total Credits** **15**

**Semester 7** **Critical** **Recommended** **AUCC** **Credits**

Professional Development and Engagement Requirement (see list on Requirements tab) **X** **5**

The timeline to complete this requirement may vary – plan in consultation with advisor.

**Total Credits** **5**

**Senior**

<b>Semester 8</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
Select one course from the following:		X			3
ESS 400	Global Perspectives on Sustainability (Spring only)			4A,4B	
ESS 411	Earth Systems Ecology			4A,4B	
Ecosystem Science and Sustainability Electives (See Department List on Concentration Requirements tab)		X			9
<b>Total Credits</b>					<b>12</b>
<b>Semester 9</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
ESS 440	Practicing Sustainability	X		4C	4
NR 400	Public Communication in Natural Resources	X			3
Ecosystem Science and Sustainability Electives (See Department List on Concentration Requirements tab)		X			6
Elective		X			2-3
ESS 400 or ESS 411 MUST be completed by the end of Semester 9.		X			
The benchmark courses for the 9th semester are the remaining courses in the entire program of study.		X			
<b>Total Credits</b>					<b>15-16</b>
<b>Program Total Credits:</b>					<b>120</b>