



**MAJOR IN
ECOSYSTEM SCIENCE
AND SUSTAINABILITY**
Effective Fall 2018

Check or list course sub	YEAR 1	Offered	Sequenced Prerequisites	# of credits	AUCC Category
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Required courses for Year 1:

_____	ESS 120	Intro to Ecosystem and Watershed Sciences	F		1	
_____	ESS 129	Information Management for Sustainability	F	Corequisite: ESS 120	1	
_____	ESS 130	Intro to Systems Theory for Sustainability	S	ESS 129	1	

AUCC Category 1A Intermediate Writing – Suggested completion during Year 1

_____	CO 150	College Composition	F, S, SS	Test or scores or CO 130	3	1A
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Biology Selection – Choose one set (either LIFE or BZ) from the following:

_____	LIFE 102 and LIFE 103	Attributes of Living Systems	F, S, SS		4	3A
		Biology of Organisms- Animals and Plants	F, S, SS	LIFE 102	4	
	BZ 110/111 and BZ 120	Principles of Animal Biology/Lab	F, S, SS	BZ 111 lab: BZ 110 or concurrent registration	4	3A
		Principles of Plant Biology	F, S		4	3A

Chemistry Selection – Choose one lecture and lab from the following:

_____	CHEM 107/108	Fundamentals of Chemistry/Lab	F, S, SS	MATH 117 or test placement; Lab: CHEM 107 or concurrent registration	5	3A
	CHEM 111/112	General Chemistry I/Lab	F, S, SS	MATH 118 or test placement; satisfactory completion of Chem Prep/ALEKS OR CHEM 105. Lab: CHEM 111 or concurrent registration	5	3A

Calculus I Selection – Choose one course from the following:

_____	MATH 155	Calculus for Biological Scientists I	F, S, SS	MATH 117, MATH 118, MATH 124, MATH 125	4	1B
	MATH 160	Calculus for Physical Scientists I	F, S, SS	MATH 117, MATH 118, MATH 124, MATH 126	4	1B

Environmental Science Selection – Choose one course from the following:

_____	GES 101	Foundations of Environmental Sustainability	F, S		3	
	NR 120	Environmental Conservation	F, S	Freshman only	3	3A

Social/Behavioral Science Selection – Choose one course from the following:

_____	ANTH 100 Intro to Anthropology AREC/ECON 202 Microeconomics AREC/ECON 240 Environ. Issues in Ag ECON 204 Macroeconomics	POLS 101 American Gov't POLS 103 State/Local Gov't SOC 100 Intro to Sociology SOC 105 Social Problems			3	3C
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Check or list course sub	YEAR 2		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required courses for Year 2:						
_____	ESS/GR 210	Physical Geography	F		3	
_____	LIFE 320	Ecology	F, S	LIFE 102 or BZ 110/111 or BZ 120; MATH 155 or 160	3	

Physics Selection – Choose one course from the following:						
_____	PH 121	General Physics I	F, S, SS	MATH 125 or concurrent registration	5	3A
_____	PH 141	Physics for Scientists and Engineers	F, S, SS	MATH 126; MATH 155 or 160 or concurrent reg.	5	3A

Statistics Selection – Choose one course from the following:						
_____	STAT 301	Introduction to Statistical Methods	F, S, SS	MATH 117 or higher	3	
_____	STAT 307	Introduction to Biostatistics	F, S, SS	MATH 117 or higher	3	

Check or list course sub	YEAR 3		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required courses for Year 3:						
_____	ESS 311	Ecosystem Ecology	F	Physics; LIFE 320	3	
_____	ESS 312	Sustainability Science	S	ESS 311	3	
_____	ESS 320	Internship and Career Prep	F, S	LIFE 320	1	
_____	ESS 330	Quantitative Reasoning	S	MATH 155 or 160; STAT 301 or 307; ESS 211 or LIFE 320	3	
_____	WR/GR 304	Sustainable Watersheds	F, S	AUCC 1B Mathematics	3	3A
_____	NR 322	Introduction to GIS	F, S		4	

Advanced Writing Selection – Choose one course from the following:						
_____	CO 301 B or C	Writing in the Disciplines – Sciences or Social Sciences	F, S, SS	Junior/Senior standing, CO 150 or HONR 193	3	2
_____	JTC 300	Professional Technical Communication	F, S, SS	Junior/Senior standing, CO 150 or HONR 193	3	2
_____	LB 300	Specialized Professional Writing	F, S, SS	Junior/Senior standing, CO 150 or HONR 193	3	2

Check or list course sub	YEAR 4		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required courses for Year 4:						
_____	GR/NR 323	Remote Sensing of Natural Resources	F		3	
_____	NR 400	Public Communication in NR	F, S, SS	Advanced Writing	3	
_____	ESS 440	Practicing Sustainability (Capstone course)	S	ESS 312 and 330	4	4C
_____	ESS Electives*				9	

Choose one course from the following:						
_____	ESS 400	Global Perspectives on Sustainability	S	ESS 312	3	4A, 4B
_____	ESS 411	Earth Systems Ecology	F	ESS 312	3	4A, 4B

Check or list course sub	PROFESSIONAL DEVELOPMENT AND ENGAGEMENT REQUIREMENT Select one option from the following to be planned in consultation with advisor				# of credits
_____	NR 220	Natural Resource Ecology & Measurements	SS	BZ 120 or similar, MATH 118	5
_____	ESS 487	Internship	F, S, SS	ESS 320	5
_____	ESS 220 ESS 221 ESS 298	ESS SUPER Program: Research Skills, Methods, and Placement	F/S		5
_____	Department-Approved Study Abroad Program				5

Check or list course sub	OTHER REQUIRED COURSEWORK – To be completed at any time in major program	# of credits	AUCC Category
_____	Arts and Humanities	3	3B
_____	Arts and Humanities	3	3B
_____	Historical Perspectives	3	3D
_____	Global and Cultural Awareness	3	3E
_____	Open Electives – Non-directed electives of students' choice; can be used toward a minor	18	

* ESS Electives – Choose from the list of approved courses selected for ESS students. Please see the ESS Department website or check with your ESS Academic Success Coordinator or Faculty Mentor for the most up-to-date course list.