



**MAJOR IN  
ECOSYSTEM SCIENCE  
AND SUSTAINABILITY**  
Effective Spring 2021

Check or list course sub	YEAR 1	Offered	Sequenced Prerequisites	# of credits	AUCC Category
<b>Required courses for Year 1:</b>					
	ESS 120	Intro to Ecosystem and Watershed Sciences	F		1
	ESS 129	Information Management for Sustainability	F		1
	ESS 130	Intro to Systems Theory for Sustainability	F	ESS 129	1

<b>AUCC Category 1A Intermediate Writing – Suggested completion during Year 1</b>						
	CO 150	College Composition	F, S, SS	Test or scores or CO 130	3	1A

<b>Biology Selection – Choose one set (either LIFE or BZ) from the following:</b>						
_____	LIFE 102 and LIFE 103	Attributes of Living Systems	F, S, SS		4	3A
		Biology of Organisms- Animals and Plants	F, S, SS		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

<b>Chemistry Selection – Choose one lecture and lab from the following:</b>						
_____	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; completion of Chem Prep/ALEKS OR CHEM 105. Lab: CHEM 111 or concurrent registration	5	3A

<b>Calculus I Selection – Choose one course from the following:</b>						
_____	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

<b>Environmental Science Selection – Choose one course from the following:</b>						
_____	ESS/ANTH 150	Imagining Sustainability	F		3	
	GES 101	Foundations of Environmental Sustainability	F, S		3	
	NR 120 (A or B)	Environmental Conservation	F, S	Freshman only	3-4	3A

<b>Social/Behavioral Science Selection – Choose one course from the following:</b>						
_____	ANTH 100: Intro. Cultural Anthropology AREC/ECON 202: Microeconomics AREC/ECON 240: Issues in Environ. Econ. 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

Check or list course sub	YEAR 2		Offered	Sequenced Prerequisites	# of credits	AUCC Category
<b>Required courses for Year 2:</b>						
	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	
	WR/GR 204	Sustainable Watersheds	F, S	AUCC 1B Mathematics	3	3A

<b>Physics Selection – Choose one course from the following:</b>						
	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

<b>Statistics Selection – Choose one course from the following:</b>						
	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
<b>Required courses for Year 3:</b>						
	ESS 311	Ecosystem Ecology	F	PH 121 or 141; LIFE 320	3	
	ESS 312	Sustainability Science	S	LIFE 320	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	
	NR 322	Introduction to GIS	F, S		4	

<b>Advanced Writing Selection – Choose one course from the following:</b>						
	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
<b>Required courses for Year 4:</b>						
	GR/NR 323	Remote Sensing of Natural Resources	F, S		3	
	NR 400	Public Communication in NR	F, S, SS	Advanced Writing	3	
	ESS 440	Practicing Sustainability (Capstone course)	S	ESS 311 and 312	4	4C
	ESS Major Electives*				9	

<b>Choose one course from the following:</b>						
	ESS 400	Global Perspectives on Sustainability	S	ESS 311	3	4A, 4B
	ESS 411	Earth Systems Ecology	F	ESS 311 and 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 or 495	Internship or Independent Study	F, S, SS	ESS 487 prereq: 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
	Diversity and Global Awareness	3	3E
	Open Electives – Non-directed electives of students' choice; can be used toward a minor	17-18	

- \* ESS Major Electives – Choose from the list published as *CSU Ecosystem Science and Sustainability (ESS) – Major Elective Options*, available from the ESS Department Academic Success Coordinators or online at: <https://warnercnr.colostate.edu/ess/ess-undergraduate-degree-tracks/ess-undergraduate-program-curriculum-course-offerings/>.