WARNER COLLEGE OF NATURAL RESOURCES
COLORADO STATE UNIVERSITY

MAJOR IN *WATERSHED SCIENCE AND SUSTAINABILITY*
Effective Spring 2021

Check or list course sub	YEAR 1		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required Watershed Science 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	
	WR/GR 204	Sustainable Watersheds	F, S		3	3A
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
Biology Selection – Choose one course from the following:						
_____	LIFE 103	Biology of Organisms-Animals and Plants	F, S, SS		4	
	BZ 110/111	Principles of Animal Biology/Lab	F, S, SS	BZ 111: BZ 110 or concurrent registration	4	3A
	BZ 120	Principles of Plant Biology	F, S		4	3A
Geology Selection – Choose one course from the following:						
_____	GEOL 110	Intro to Geology-Parks and Monuments	F, S, SS		3	3A
	GEOL 120	Physical Geology	F, S, SS		3	3A
	GEOL 122	Geology of Our Environment	F, S, SS		3	3A
	GEOL 124	Geology of Natural Resources	S		3	3A
	GEOL 150	Physical Geology for Scientists and Engineers	F		4	
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

Check or list course sub	YEAR 2		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required courses for Year 2:						
_____	LIFE 320	Ecology	F, S	BZ 101 or 104 or 110 or 120 or LIFE 102; MATH 141 or 155 or 160	3	
	SOCR 240	Introduction to Soil Science	F, S	CHEM 107 or 111	4	

Calculus II Selection – Choose one course from the following:						
_____	MATH 161	Calculus for Physical Scientists II	F, S, SS	MATH 124; MATH 160	4	1B
	MATH 255	Calculus for Biological Scientists II	F, S	MATH 126 or concurrent reg.; MATH 155	4	1B

Statistics Selection – Choose one course from the following:						
_____	STAT 301	Intro to Statistical Methods	F, S, SS	MATH 117 or higher	3	
	STAT 315	Intro to Theory and Practice of Statistics	F, S, SS	MATH 160 or 155	3	

Physics Selection – Choose one set from the following:						
_____	PH 121 and PH 122	General Physics I	F, S, SS	MATH 125 or concurrent registration	5	3A
		General Physics II	F, S, SS	PH 121 or PH 141	5	3A
	PH 141 and PH 142	Physics for Scientists and Engineers I	F, S, SS	MATH 126; MATH 155 or 160 or concurrent reg.	5	3A
		Physics for Scientists and Engineers II	F, S, SS	PH 141 and MATH 161 or MATH 255 or concurrent registration	5	3A

Check or list course sub	YEAR 3		Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required courses for Year 3:						
_____	AREC 342	Water Law, Policy, and Institutions	S		3	
	WR 416	Land Use Hydrology	F	SOCR 240 or Geology; Statistics; Physics	3	4
	WR 417	Watershed Measurements	F	Concurrent reg. in WR 416	3	
_____	WR 418	Land Use and Water Quality	S	Any Chemistry class with lab	3	
_____	WR 419	Water Quality Lab	S	Concurrent reg. in WR 418	3	
_____	WR 486	Watershed Field Practicum	F	Junior standing	2	
_____	Watershed Technical Electives*				4	

Advanced Writing Selection – Choose one course from the following:						
_____	CO 301B	Writing in the Disciplines-Sciences	F, S, SS	CO 150 or HONR 193	3	2
	JTC 300	Professional Technical Communication	F, S, SS	CO 150 or HONR 193	3	2
	LB 300	Specialized Professional Writing	F, S, SS	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:						
_____	NR 322	Introduction to GIS	F, S		4	
_____	WR 440	Watershed Problem Analysis (Capstone course)	S	NR 322 or NR 319; WR 416; WR 418	3	4
	WR 474	Snow Hydrology	F	WR 416	3	

Choose one course from the following:						
_____	GEOL 452	Hydrogeology	F	3 credits of GEOL, MATH, and PH	4	
	SOCR 470/ 471	Soil Physics/Lab	F	SOCR 240 or GEOL 232	4	

Choose one course from the following:						
_____	BZ 471	Stream Biology and Ecology	F (odd years)	LAND 220 or LIFE 220 or 320	3	
	BZ/ESS 474	Limnology	S (odd years)	LAND 220 or LIFE 220 or 320	3	

MOUNTAIN CAMPUS SUMMER FIELD PROGRAM – Recommended summer between Year 2 and Year 3						
_____	NR 220	Natural Resource Ecology & Measurements	SS	BZ 120 or similar, MATH 118	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
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_____	Social and Behavioral Sciences	3	3C
_____	Historical Perspectives	3	3D
_____	Global and Cultural Awareness	3	3E
_____	Open Electives – Non-directed electives of students' choice; can be used toward a minor	4-6	

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