

MAJOR IN WATERSHED SCIENCE & SUSTAINABILITY

Concentration: Watershed Data

Check or list course sub		YEAR 1	Offered	Sequenced Prerequisites	# of credits	AUCC Category
Required co	urses for Year 1:					
	CS 150B	Culture and Coding: Python	F, S		3	3B
	STAT 158	Intro to R Programming	S, SS		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:							
		Principles of Animal		BZ 111: BZ 110 or			
	BZ 110/111	Biology/Lab	F, S, SS	concurrent registration	4	3A	
	BZ 120	Principles of Plant Biology	F, S, SS		4	3A	

Geology/Geo	graphy Selection	- Choose one course from the f	following:		
		Intro to Geology-Parks and			
	GEOL 110	Monuments	F, S, SS	3	3A
	GEOL 120	Physical Geology	F, S, SS	3	3A
		The Blue Planet: Geology of			
	GEOL 122	Our Environment	F, S	3	3A
		Geology of Natural			
	GEOL 124	Resources	S	3	3A
		Physical Geology for			
	GEOL 150	Scientists and Engineers	F	4	
	GR/ESS 210	Physical Geography	F	3	

Chemistry S	Chemistry Selection – Choose one course from the following:								
				MATH 117 or test					
				placement; Lab: CHEM 107					
	CHEM 107	Fundamentals of Chemistry	F, S, SS	or concurrent registration	4	3A			
				MATH 118 or test					
				placement; Lab: CHEM 111					
	CHEM 111	General Chemistry I	F, S, SS	or concurrent registration	4	3A			

Calculus Selection – Choose one course from the following:							
		Calculus for Physical		MATH 117, MATH 118,			
	MATH 155	Scientists I	F, S, SS	MATH 124, MATH 125	4	1B	
		Calculus for Biological		MATH 117, MATH 118,			
	MATH 160	Scientists I	F, S, SS	MATH 124, MATH 126	4	1B	

Check or list		YEAR 2	Offered	Sequenced Prerequisites	# of	AUCC
course sub			Officien	sequenced 1 rerequisites	credits	Category
Required cour	ses for Year 2:					
				CS 150B (with a minimum		
		Discrete Structures and their		grade of B); MATH 155 or		
	CS 220	Applications	F, S	160	4	
		Introduction to Geospatial				
	NR 319	Science	F, S		4	
	SOCR 240	Introduction to Soil Science	F, S	CHEM 107 or 111	4	
		Linear Algebra for Data				
	DSCI 369	Science	S	MATH 155 or 160	4	
Statistics Selec	tion – Choose	one course from the following:				
		Intro to Applied Statistical				
	STAT 301	Methods	F, S, SS	MATH 117 or higher	3	
		Intro to Theory and Practice				
	STAT 315	of Statistics	F, S, SS	MATH 160 or 155	3	
Physics Selecti	on – Choose or	ne course from the following:				
				MATH 125 or concurrent		
	PH 121	General Physics I	F, S, SS	registration	5	3A
		Physics for Scientists and		MATH 126; MATH 155 or		
	PH 141	Engineers I	F, S, SS	160 or concurrent reg.	5	3A

Check or list course sub		YEAR 3		Sequenced Prerequisites	# of credits	AUCC Category
Required cour	ses for Year 3:					
				STAT 158; STAT 301 or		
	STAT 341	Statistical Data Analysis I	F	315	3	
				SOCR 240 or Geology;		
	WR 416	Land Use Hydrology	F	Statistics; Physics	3	4
	WR 486	Watershed Field Practicum	F	Junior standing	2	
	AREC 342	Water Law, Policy, and Institutions	S		3	
	711120 3 12	Inferential Reasoning in Data	5	CO 301B or JTC 300;		
	DSCI 335	Analysis	S	STAT 301 or 315	3	
				Any Chemistry class with		
	WR 418	Land Use and Water Quality	S	lab; Statistics; STAT 158	3	

Advanced Writing Selection – Choose one course from the following:							
		Writing in the Disciplines-					
	CO 301B	Sciences	F, S, SS	CO 150 or HONR 193	3	2	
		Strategic Writing &					
	JTC 300	Communications	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 cour	Required courses for Year 4:						
	WR 417	Watershed Measurements	F	WR 416; WR 418	3		
				WR 416 (may be taken			
	WR 474	Snow Hydrology	F	concurrently)	3		
		Watershed Problem Analysis		NR 319; WR 416 and WR			
	WR 440	(Capstone course)	S	418	3	4	
	Watershed Tec	9					
	Data Science E	Electives**			3		

MOUNTAIN CAMPUS SUMMER FIELD PROGRAM – Recommended summer between Year 2 and Year 3						
		Natural Resource Ecology &		BZ 120 or similar, MATH		
	NR 220	Measurements	SS	118	5	

Check or list course sub	OTHER REQUIRED COURSEWORK – To be completed at any time in major program	# of credits	AUCC Category
	Diversity, Equity, and Inclusion	3	1C
	Arts and Humanities	3	3B
	Social and Behavioral Sciences	3	3C
	Historical Perspectives	3	3D
	Open Electives – Non-directed electives of students' choice; can be used toward a minor	12-13	

^{*} Watershed Technical Electives – Choose from the list of approved courses selected for Watershed Science and Sustainability 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.

^{**} Data Science Electives – Choose from the list of approved courses selected for students in the Watershed Data concentration. 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.