

Courses	Title	Credits	Prerequisites	Semester(s) Offered
Agriculture and Resource Economics				
AREC 442	Water Resource Economics	3	AREC 342; ECON 306 or concurrent registration	S
Atmospheric Science				
ATS 350/351	Introduction to Weather and Climate/Lab	2/1	NONE	F
Bioagricultural Science and Pest Management				
BSPM 445	Aquatic Insects	4	BZ 111 or LIFE 103	F
Botany and Zoology				
BZ 440/441	Plant Physiology/Lab	5	BZ 120 or LIFE 103	S
BZ 471/472	Stream Biology and Ecology	4	LIFE 320 or LAND 220 or LIFE 220	F (odd years)
BZ 474	Limnology	3	LIFE 320 or LAND 220 or LIFE 220	S (odd years)
Chemistry				
CHEM 334	Quantitative Analysis Laboratory	1	CHEM 114, CHEM 335 (may be taken concurrently)	F, S
	Introduction to Analytical Chemistry	3	CHEM 113 with minimum grade of C, CHEM 334 (may be taken concurrently)	F, S
CHEM 335				
CHEM 338	Environmental Chemistry	3	CHEM 113; CHEM 245 or CHEM 341 or CHEM 345	S (odd years)
Civil Engineering				
	Basic Hydrology	3	CIVE 202 or STAT 301 or STAT 315; CIVE 300 or CBE 331 or WR 416	F, S
CIVE 322				
	Ecological Engineering	3	CIVE 300 or LIFE 320; BZ 110; BZ 111 or BZ 120 or LIFE 102 or SOCR 240; CHEM 113	S
CIVE 330				
CIVE 413*	Environmental River Mechanics	3	CIVE 300 or WR 416	F
CIVE 423	Groundwater Engineering	3	CIVE 300 or CBE 331 or WR 416	S
CIVE 424	Modern Oil and Gas	3	Completion of AUCC Math	S
CIVE 425	Soil and Water Engineering	3	CIVE 300 or CBE 331 or SOCR 240	S
CIVE 440	Nonpoint Source Pollution	3	CIVE 300 or CIVE 322 or SOCR 240 or WR 416	F
*Consult with Faculty Mentor before signing up for this class				
Ecosystem Science and Sustainability				
ESS 311	Ecosystem Ecology	3	PH 121 or 141; LIFE 320	F
ESS 312	Sustainability Science	3	ESS 311	S
			GR 100 or GR 210 or LIFE 220 or LIFE 320 or NR 120 or NR 130 or GES 101 or ANTH 100 or ANTH 200 or SOC 220	F
ESS 412	Sustainable Cities	3		F
ESS 471	Special Topics in Ecosystem Sustainability	1-6	ESS 311	Variable
ESS 474	Limnology	3		

Environmental & Radiological Health Science

ERHS 448 Environmental Contaminants 3 CHEM 241 or CHEM 245 or CHEM 341 or CHEM 345 F

Fish, Wildlife, and Conservation Biology

FW 300 Biology and Diversity of Fishes 2 BZ 111 or LIFE 103 S
 FW 301 Ichthyology Lab 1 FW 300, may be taken concurrently F, S

Forest and Rangeland Stewardship

F 311 Forest Ecology 3 LIFE 320 or LAND 220 or LIFE 220 F, S
 F 324 Fire Effects and Adaptations 3 LIFE 320 or LAND 220 or LIFE 220

Global Environmental Sustainability

GES 470 Applications of Environmental Sustainability 3 GES 101 F, S

Geography

GR 410 Climate Change: Science, Policy, and Implications 3 3 credits of GR coursework S

Geology

GEOL 424 Modern Oil and Gas 3 Completion of AUCC Math S
 Environmental Geology 3 GEOL 120 or GEOL 122 or GEOL 124 or GEOL 150; CHEM 111; PH 141.
 GEOL 446 Hydrogeology 4 GEOL 120 or GEOL 122 or GEOL 124 or GEOL 150 or F
 GEOL 452 Geomorphology 4 GR 210; MATH 161 or MATH 255; PH 121 or PH 141.
 GEOL 454 Groundwater Resources 4 (GEOL 120 or GEOL 122 or GEOL 124 or GEOL 150 or S
 GEOL 480A3 Groundwater Resources 3 CHEM 107 or CHEM 111; MATH 155 or MATH 160; GEOL 110 or GEOL S
 GEOL 551 Groundwater Modeling 3 CIVE 423 or GEOL 452 S
 GEOL 552 Advanced Topics in Hydrogeology 2-3 GEOL 452 S
 GEOL 553 Use of Tracers in Hydrogeology 3 CIVE 423 or GEOL 452 S (odd)

Graduate Seminar

GRAD 592 Water Resources Seminar 1 NONE F

Natural Resources

NR 310 Ecosystem Services and Human Well-Being 3 AREC 202 or ECON 202 or ESS 211 or S
 LAND 220/LIFE 220.
 NR 320 Natural Resources History and Policy 3 NONE F, S
 NR/GR 323 Remote Sensing and Image Interpretation 3 NONE F
 NR 370 Coastal Environmental Ecology 3 CHEM 107 or CHEM 113 F, S
 NR 422 GIS Applications for Natural Resource Management 4 NR 322 or NR 319 S

Natural Resource Recreation and Tourism

NRRT 330	Social Aspects of Natural Resource Management	3	NONE	F, S
NRRT 362	Environmental Conflict Management	3	NRRT 262	F

Rangeland Ecosystem Science

RS 478	Restoration Ecology	3	(BZ 450 or LAND 220 or LIFE 220 or LIFE 320) and SOCR 240	S
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Sociology

SOC 461	Water, Society, and Environment	3	SOC 100 OR SOC 105	F, S, SS
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Soil and Crop Sciences

SOCR 322	Principles of Microclimatology	3	3 credits of PH coursework	S
SOCR 370	Irrigation Principles	2	HORT 100 or SOCR 100 or BZ 120; SOCR 240	S
SOCR 371	Irrigation of Field Crops	1	SOCR 370	F
SOCR 440	Pedology	4	NONE	F
SOCR 500	Environmental Measurement Lab	1	PH 110	S

Watershed Science

WR 406	Seasonal Snow Environments	3	NONE	S (odd years)
WR 492	Seminar	1-6	NONE	F, S
WR 575	Snow Hydrology Field Methods	1	NONE	S