

Energy Resource Management & Development, BS

Energy Air, Land and Water Management Concentration



University of Wyoming, 2016-17

Freshman Fall Semester			Hrs	Min Grade	Notes
		USP First-Year Seminar	3	C	FY
		USP US & Wyoming Constitutions	3	C	V; recommend ECON 1200 (Economics, Law, and Government).
ENGL	1010	College Composition and Rhetoric	3	C	C1
ERS	1000	Energy and Society	3	C	PN
MATH	2200	Calculus I*	4	C	Q
Credit hours subtotal:			16		

Freshman Spring Semester			Hrs	Min Grade	Notes
ACCT	1010	Principles of Accounting I	3	C	
ECON	1020	Principles of Microeconomics	3	C	H; cross listed with AGECE 1020.
ERS	1300	Oil: Business, Culture, and Power	3	C	Cross listed with ECON 1300; offered spring semester.
ERS	2500	Communication Across Topics in Energy	3	C	C2
LIFE	1010	General Biology	4	C	PN
Credit hours subtotal:			16		

Sophomore Fall Semester			Hrs	Min Grade	Notes
		USP Human Culture	3	C	H; cross listed with AGECE 1020.
ES	1060	Engineering Problem Solving	3	C	
LIFE	2023	Biology of Plants & Fungi	4	C	Offered fall semester.
REWM	2000	Principles of Rangeland Management	3	C	
		Chemistry Elective	4	C	Recommend CHEM 1000 (Intro Chem) offered in fall semester or CHEM 1020 (Gen Chem I) offered in fall, spring, or summer semester.
Credit hours subtotal:			17		

Sophomore Spring Semester			Hrs	Min Grade	Notes
GEOG	2150	Foundations of GIS & Technology	4	C	
LIFE	3400	General Ecology	3	C	
STAT	2050	Fundamentals of Statistics	4	C	Can substitute STAT 2070 (Intro Statistics for the Social Sciences).
SOIL	2010	Introduction to Soil Science	4	C	
Credit hours subtotal:			15		

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • H and PN courses must be taken outside of the major subject, but can be cross-listed with the major.

Energy Resource Management and Development Program Notes:

This degree is a collaborative effort between the School of Energy Resources and the Colleges of Arts and Sciences, Agriculture and Natural Resources, Business, Engineering and Applied Science, and Law, as well as with the Haub School of Environment and Natural Resources. • Academic plans and course schedules may need to be altered if Math Placement scores require Math 0900, 0921, 0925, 1400, 1405, or 1450. • Students must earn a letter grade of C or better in each course and a cumulative gpa of 2.0 or better to graduate. • Students are strongly encouraged to complete an industry internship (a minimum gpa of 3.0 is typically required). Opportunities are also available for undergraduate research, a study abroad experience, or a summer field trip. Please consult with an academic advisor. • Students majoring in Energy Resource Management and Development can earn a double major by completing courses required for the Environment and Natural Resources program. Or students looking to create a focus for their coursework can add a minor to the program. Please consult with an academic advisor about these options.

* Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , Math Placement Exam ≥ 5 , or $\geq C$ in MATH 1405 or 1450. (University Standard)

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Junior Fall Semester			Hrs	Min Grade	Notes
AGEC	3400	Agricultural Law	3	C	Must take in fall semester due to course content.
FIN	3250	Corporate Finance	3	C	
REWM	2400	Range Ecosystems and Plants	4	C	Offered fall semester.
REWM	3100	Principles of Wildland Water Quality	3	C	Offered fall semester.
SOIL	3130	Environmental Quality	3	C	Cross listed with ENR 3130; offered fall semester.
Credit hours subtotal:			16		

Junior Spring Semester			Hrs	Min Grade	Notes
ERS	3010	Air Quality Management	3	C	Offered spring semester.
MGT	3210	Management and Organization	3	C	
REWM	4710	Watershed Water Quality Management	3	C	Offered spring semester.
		Economics Elective **	3	C	Consult with an academic advisor for courses from approved list.
		Elective ***	4	C	Consult with an academic advisor for courses from approved list.
Credit hours subtotal:			16		

Junior Summer Semester			Hrs	Min Grade	Notes
		Practicum ****	3	S	
Credit hours subtotal:			3		

Senior Fall Semester			Hrs	Min Grade	Notes
AGEC	4550	Negotiation Analysis	3	C	Cross listed with ENR 4550; offered fall semester.
ENR	4500	Risk Analysis	3	C	
ENR	4501	Risk Analysis Computer Laboratory	1	C	Concurrent enrollment in ENR 4500 required.
ENR	4750	ENR Law and Policy	3	C	Offered fall semester.
GEOG	4200	Introduction to Geographic Information Systems	4	C	Offered fall semester.
REWM	4200	Reclamation of Drastically Disturbed Lands	3	C	Offered fall semester.
Credit hours subtotal:			17		

Senior Spring Semester			Hrs	Min Grade	Notes
AGEC	4450	Negotiation	3	C	Cross listed with ENR 4450; offered spring semester.
DSCI	4260	Project Management	3	C	Offered spring semester.
ERS	4900	Energy Resource Management Capstone	3	C	C3; offered spring semester.
REWM	4580	Rangeland Restoration Ecology	3	C	Offered spring semester.
Credit hours subtotal:			12		

TOTAL CREDIT HOURS: 128

Energy Resource Management and Development Program Notes con't:

** Approved **Economics** electives include: AGECE 3750 (Natural Resource Planning & Economics), AGECE 4600 (Community Economic Analysis), AGECE 4660 (Community & Economic Development), AGECE 4720 (Water Resource Economics), and ECON 4420 (Seminar: Economics for ENR).

*** Approved **electives** include: ENR 4525 (Environmental Data Analysis), ENR 4600 (Campus Sustainability), ENR 4890 (Topics in ENR), ERS 4985 (Seminar), ERS 4990 (Topics in Energy Resource Development & Management), GEOG 3150 (Survey of Remote Sensing Applications), GEOG 3450 (Weather & Climate), GEOG 3480 (Environmental Change), GEOG 4040 (Conservation of Natural Resources), GEOG 4111 (Remote Sensing of the Environment), GEOG 4210 (Advanced Geographic Information Systems), GEOG 4211 (), GEOG 4330 (Land Use Planning), LIFE 3410 (Intro to Field Ecology), MGT 3410 (Human Resource Management), MGT 3420 (Organizational Behavior & Leadership), PLNT 1150 (Pesticide Safety & Application), REWM 4210 (Land Reclamation Seminar), REWM 4285 (Wildland Hydrology), REWM 4330 (Rangeland Ecosystem Assessment & Monitoring), REWM 4530 (Seminar), REWM 4700 (Wildland Watershed Management), REWM 4850 (Rangeland Vegetation Management Techniques), SOIL 4105 (Soil Physics Lab), SOIL 4120 (Genesis, Morphology & Classification of Soils), SOIL 4130 (Chemistry of Soil Environment), SOIL 4135 (Soil Chemistry Lab), SOIL 4140 (Soil Microbiology), SOIL 4150 (Forest & Range Soils), and SOIL 4160 (Soil Fertility & Fertilizers).

**** **Practicum.** Complete any combination of courses below to equal three (3) credit hours:

ENR	3700	Wyoming Conservation Corps Practicum (1-2 hrs)	ERS	4960	Energy Field Studies (2 hrs)
ENR	4970	ENR Internship (1-6 hrs)	ERS	4965	Undergraduate Research (1-3 hrs)
ERS	4950	Leadership in Natural Resources Mgt (2 hrs)	ERS	4970	Internship (1-3 hrs)