# **Energy Resource Management & Development, BS** Fossil Fuels Concentration



### University of Wyoming, 2015-16

	• 3,			
an Fa	ll Semester	Hrs	Min Grade	Notes
	USP First-Year Seminar	3	С	FY
	USP US & Wyoming Constitutions	3	С	V; recommend ECON 1200 (Economics, Law, and Government).
1010	College Composition and Rhetoric	3	С	C1
1100	Physical Geology	4	С	PN
2200	Calculus I *	4	С	Q
	Credit hours subtotal:	<u>17</u>		
an Sp	ring Semester	Hrs	Min Grade	Notes
1010	Principles of Accounting I	3	С	
1300	Oil: Business, Culture, & Power	3	С	Cross listed with ECON 1300; offered spring semester.
2500	Communication Across Topics in Energy	3	С	C2; can substitute ENGL 2005 (Writing in Technology & the Sciences).
2205	Calculus II	4	С	
1210	Engineering Physics I	4	С	PN
	Credit hours subtotal:	<u>17</u>		
nore F	Fall Semester	Hrs	Min Grade	Notes
1020	General Chemistry I	4	С	
1020	Principles of Microeconomics	3	С	Н
1060	Introduction to Engineering Problem Solving	3	С	
2210	Calculus III	4	С	
2345	Natural Resource Ethics	3	С	Н
2345	Natural Resource Ethics Credit hours subtotal:	3 <u>17</u>	С	Н
			C Min Grade	H Notes
	Credit hours subtotal:	<u>17</u>		
nore S	Credit hours subtotal:	<u>17</u> Hrs	Min Grade	
107e S	Credit hours subtotal: Spring Semester General Chemistry II	<u>17</u> Hrs 4	Min Grade C	
10 <b>re S</b> 1030 2310	Credit hours subtotal: Spring Semester General Chemistry II Thermodynamics I	<u>17</u> Hrs 4 3	Min Grade C C	
10re S 1030 2310 2330	Credit hours subtotal: Spring Semester General Chemistry II Thermodynamics I Fluid Dynamics	17 Hrs 4 3 3	Min Grade C C C	
	1010 1100 2200 an Sp 1010 1300 2500 2205 1210 nore F 1020 1020 1060	USP US & Wyoming Constitutions         1010       College Composition and Rhetoric         1100       Physical Geology         2200       Calculus I *         Credit hours subtotal:         an Spring Semester         1010       Principles of Accounting I         1300       Oil: Business, Culture, & Power         2500       Communication Across Topics in Energy         2205       Calculus II         1210       Engineering Physics I         Credit hours subtotal:         Orre Fall Semester         1020       General Chemistry I         1020       Principles of Microeconomics         1060       Introduction to Engineering Problem Solving	USP First-Year Seminar         3           USP US & Wyoming Constitutions         3           1010         College Composition and Rhetoric         3           1100         Physical Geology         4           2200         Calculus I *         4           Credit hours subtotal:         17           Intersteet Resteet Restee Resteet Resteet Resteet Resteet Restee Resteet Reste	USP First-Year Seminar         3         C           USP US & Wyoming Constitutions         3         C           1010         College Composition and Rhetoric         3         C           1100         Physical Geology         4         C           2200         Calculus I *         4         C           2200         Calculus I *         4         C           Credit hours subtotal:         17           an Spring Semester         Hrs         Min Grade           1010         Principles of Accounting I         3         C           1300         Oil: Business, Culture, & Power         3         C           2500         Communication Across Topics in Energy         3         C           2500         Communication Across Topics in Energy         3         C           2205         Calculus II         4         C           1210         Engineering Physics I         4         C           Credit hours subtotal:         17         T           Credit hours subtotal:         17

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.

# **Energy Resource Management & Development, BS Fossil Fuels Concentration**



### University of Wyoming, 2015-16

	fall S	emester	Hrs	Min Grade	Notes
MGT	3210	Management and Organization	3	С	
PETE	3255	Basic Drilling Engineering	3	C	
SOIL	3130	Environmental Quality	3	С	Offered fall semester.
STAT	2050	Fundamentals of Statistics	4	С	
		Upper Division Economics Elective **	3	С	
		Credit hours subtotal:	16		
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Junior S	spring	g Semester	Hrs	Min Grade	Notes
FIN	3250	Corporate Finance	3	С	
PETE	3100	Rock and Fluids Lab	2	С	
PETE	3200	Reservoir Mechanics	3	С	Offered spring semester.
PETE	3265	Drilling Fluids Lab	3	С	
GEOL 483	4835	Applied/Exploration Geophysics	3	С	Can substitute GEOL 4190 (Petroleum Geology).
		Credit hours subtotal:	<u>14</u>		
unior S	Summ	er Semester	Hrs	Min Grade	Notes
		Practicum ***	3	S	
		Credit hours subtotal:	3		
Senior I	Fall S	emester	Hrs	Min Grade	Notes
ENR	4500	Risk Analysis	3	С	
ENR	4501	Risk Analysis Lab	1	С	Concurrent enrollment in ENR 4500 required.
ENR	4750	ENR Law and Policy	3	С	Permission of instructor required; offered fall semester.
REWM	4200	Reclamation of Drastically Disturbed Lands	3	С	Permission of instructor required; offered fall semester.
		Negotiation Elective ****	3	С	
		Upper Division Elective	3	С	Consult with an academic advisor for courses from an approved list.
		Credit hours subtotal:	<u>16</u>		
Senior S	Snrin	o Semester	Hrs	Min Grade	Notes
	<u> </u>	g Semester	Hrs	Min Grade	Notes
DSCI	4260	Project Management	3	Min Grade	
	<u> </u>	Project Management Energy Resource Management Capstone	3 3	Min Grade	СЗ
DSCI	4260	Project Management Energy Resource Management Capstone Electives	3 3 6	Min Grade	
DSCI	4260	Project Management Energy Resource Management Capstone Electives Credit hours subtotal:	3 3 6 <u>12</u>	Min Grade	СЗ
DSCI	4260	Project Management Energy Resource Management Capstone Electives	3 3 6	Min Grade	СЗ
DSCI ERS	4260 4900	Project Management Energy Resource Management Capstone Electives Credit hours subtotal:	3 3 6 <u>12</u> <u>128</u>		СЗ
DSCI ERS	4260 4900 esourc	Project Management Energy Resource Management Capstone Electives Credit hours subtotal: TOTAL CREDIT HOURS: e Management and Development Program	3 3 6 12 128 n Note	es con't:	C3 Consult with an academic advisor for courses from an approved list.
DSCI ERS Energy Re	4260 4900 esourc	Project Management Energy Resource Management Capstone Electives Credit hours subtotal: TOTAL CREDIT HOURS:	3 3 6 12 128 n Note	es con't:	C3 Consult with an academic advisor for courses from an approved list.
DSCI ERS Energy Ro	4260 4900 esourc MATH	Project Management Energy Resource Management Capstone Electives Credit hours subtotal: TOTAL CREDIT HOURS: e Management and Development Program ACT ≥ 27, MATH SAT ≥ 600, Math Placement	3 3 12 128 n Note t Exam	es con't: $n \ge 5$ , or $\ge C$	C3 Consult with an academic advisor for courses from an approved list.
DSCI ERS Energy Ro Requires	4260 4900 essourc MATH Divisi	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program         ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement         on Economics Elective.       Select one (1) from the second secon	3 6 12 128 n Note t Exam	es con't: $n \ge 5$ , or $\ge C$ owing:	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard)
DSCI ERS Energy Ro Requires Requires AGEC 3	4260 4900 esourc MATH Divisi 3750	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program         ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement         on Economics Elective.         Select one (1) from 7         Natural Resource Planning and Economics (3	3 6 12 128 n Note t Exam	es con't: $n \ge 5$ , or $\ge C$ owing:	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard)
DSCI ERS Energy Ro Requires * Upper AGEC 3 AGEC 4	4260 4900 esourc MATH Divisi 3750 6600	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program         ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement         on Economics Elective.         Select one (1) from the source Planning and Economics (3 Community Economic Analysis (3 hrs)	3 6 12 128 n Note t Exam- the follow	es con't: $n \ge 5$ , or $\ge C$ owing:	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard)
DSCI ERS Energy Rd * Requires ** Upper AGEC 3 AGEC 4 AGEC 4	4260 4900 esourc MATH Divisi 3750 600 F720	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program $ACT \ge 27$ , MATH SAT $\ge 600$ , Math Placement         on Economics Elective.         Select one (1) from 7         Natural Resource Planning and Economics (3         Community Economic Analysis (3 hrs)         Water Resource Economics (3 hrs)	3 6 12 128 n Note t Exam- the follow	es con't: $n \ge 5$ , or $\ge C$ owing:	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard)
DSCI ERS Energy Ra * Requires ** Upper AGEC 3 AGEC 4	4260 4900 esourc MATH Divisi 3750 600 F720	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program         ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement         on Economics Elective.         Select one (1) from the source Planning and Economics (3 Community Economic Analysis (3 hrs)	3 6 12 128 n Note t Exam- the follow	es con't: $n \ge 5$ , or $\ge C$ owing:	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard)
DSCI ERS Energy Rd * Requires ** Upper AGEC 3 AGEC 4 AGEC 4 AGEC 4 ECON 4	4260 4900 esourc MATH Divisi 3750 600 720 4420	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program $ACT \ge 27$ , MATH SAT $\ge 600$ , Math Placement         on Economics Elective.         Select one (1) from 7         Natural Resource Planning and Economics (3         Community Economic Analysis (3 hrs)         Water Resource Economics (3 hrs)         Seminar: Economics for ENR (2-4 hrs)	3 6 12 128 n Note tt Exam the foll- hrs) (o	es con't: $a \ge 5$ , or $\ge C$ owing: ffered spring :	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years)
DSCI ERS Energy Rd Requires Requires AGEC 3 AGEC 4 AGEC 4 ECON 4	4260 4900 esourc MATH Divisi 3750 4600 4720 4420 icum.	Project Management         Energy Resource Management Capstone         Electives         Credit hours subtotal:         TOTAL CREDIT HOURS:         e Management and Development Program         ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement         on Economics Elective.         Select one (1) from 1         Natural Resource Planning and Economics (3         Community Economic Analysis (3 hrs)         Water Resource Economics (3 hrs)         Seminar: Economics for ENR (2-4 hrs)         Complete any combination of courses below to	3 6 12 128 n Note t Exam the foll hrs) (o	es con't: $a \ge 5$ , or $\ge C$ owing: ffered spring s three (3) cred	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours:
DSCI ERS Energy Ro Requires Requires AGEC 3 AGEC 4 AGEC 4 AGEC 4 ECON 4 ECON 4 ECON 4	4260 4900 esourc MATH Divisi 8750 6600 720 4420 icum. 3700	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from 5Natural Resource Planning and Economics (3Community Economic Analysis (3 hrs)Water Resource Economics (3 hrs)Seminar: Economics for ENR (2-4 hrs)Complete any combination of courses below to Wyo Conservation Corps Practicum (1-2 hrs)	3 6 12 128 n Note t Exam the foll- hrs) (o	es con't: $n \ge 5$ , or $\ge C$ owing: ffered spring : three (3) cred ERS 4970	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours: Internship (1-3 hrs)
DSCI ERS Energy Rd * Requires ** Upper AGEC 3 AGEC 4 AGEC 4 ECON 4 *** Practi ENR 3 ERS 4	4260 4900 esourc MATH Divisi 3750 6600 F720 4420 icum. 3700 4960	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from 1Natural Resource Planning and Economics (3Community Economic Analysis (3 hrs)Water Resource Economics (3 hrs)Seminar: Economics for ENR (2-4 hrs)Complete any combination of courses below toWyo Conservation Corps Practicum (1-2 hrs)Energy Field Studies (2 hrs)	3 6 12 128 n Note t Exam the foll- hrs) (o	es con't: $a \ge 5$ , or $\ge C$ owing: ffered spring s three (3) cred	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours:
DSCI ERS Energy Rd * Requires ** Upper AGEC 3 AGEC 4 AGEC 4 ECON 4 *** Practi ENR 3 ERS 4	4260 4900 esourc MATH Divisi 8750 6600 720 4420 icum. 3700	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from 5Natural Resource Planning and Economics (3Community Economic Analysis (3 hrs)Water Resource Economics (3 hrs)Seminar: Economics for ENR (2-4 hrs)Complete any combination of courses below to Wyo Conservation Corps Practicum (1-2 hrs)	3 6 12 128 n Note t Exam the foll- hrs) (o	es con't: $n \ge 5$ , or $\ge C$ owing: ffered spring : three (3) cred ERS 4970	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours: Internship (1-3 hrs)
DSCI ERS Energy Rd * Requires ** Upper AGEC 3 AGEC 4 AGEC 4 AGEC 4 ECON 4 *** Practi ENR 3 ERS 4 ERS 4	4260 4900 esourc MATH Divisi 3750 4600 4720 4420 icum. 3700 4960 4965	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from the second se	3 6 12 128 n Note t Exam the foll- hrs) (o	es con't: $n \ge 5$ , or $\ge C$ owing: ffered spring : three (3) cred ERS 4970	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours: Internship (1-3 hrs)
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DSCI ERS Energy Rd Requires Requires AGEC 3 AGEC 4 AGEC 4 ECON 4 ECON 4 ECON 4 ERS 4 ERS 4 ERS 4 ERS 4	4260 4900 esourc MATH Divisi 3750 4600 4720 4420 icum. 3700 4960 4965 btiation ENR 45	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from 1Natural Resource Planning and Economics (3Community Economic Analysis (3 hrs)Water Resource Economics (3 hrs)Seminar: Economics for ENR (2-4 hrs)Complete any combination of courses below to Wyo Conservation Corps Practicum (1-2 hrs)Energy Field Studies (2 hrs)Undergraduate Research (1-3 hrs)n Elective. Select one (1) from the following:550Negotiation Analysis (3 hrs) (offered fa	3 6 12 128 n Note t Exam the follow hrs) (o	es con't: $a \ge 5$ , or $\ge C$ owing: ffered spring : three (3) cred ERS 4970 ERS 4975	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours: Internship (1-3 hrs)
DSCI ERS Energy Rd Requires ** Upper AGEC 3 AGEC 4 AGEC 4 ECON 4 ECON 4 ECON 4 ERS 4 ERS 4 ERS 4	4260 4900 esourc MATH Divisi 3750 4600 4720 4420 icum. 3700 4960 4965 btiation ENR 45	Project ManagementEnergy Resource Management CapstoneElectivesCredit hours subtotal:TOTAL CREDIT HOURS:e Management and Development ProgramACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placementon Economics Elective.Select one (1) from 1Natural Resource Planning and Economics (3Community Economic Analysis (3 hrs)Water Resource Economics (3 hrs)Seminar: Economics for ENR (2-4 hrs)Complete any combination of courses below to Wyo Conservation Corps Practicum (1-2 hrs)Energy Field Studies (2 hrs)Undergraduate Research (1-3 hrs)n Elective. Select one (1) from the following:550Negotiation Analysis (3 hrs) (offered fa	3 6 12 128 n Note t Exam the follow hrs) (o	es con't: $a \ge 5$ , or $\ge C$ owing: ffered spring : three (3) cred ERS 4970 ERS 4975	C3 Consult with an academic advisor for courses from an approved list. in MATH 1405 or 1450. (University Standard) semester of odd years) it hours: Internship (1-3 hrs)