

Energy Resource Management & Development, BS



Fossil Fuels 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 |
| GEOL | 1100 | Physical Geology | 4 | C | PN |
| MATH | 2200 | Calculus I * | 4 | C | Q |
| Credit hours subtotal: | | | <u>17</u> | | |

| Freshman Spring Semester | | | Hrs | Min Grade | Notes |
|--------------------------|------|---------------------------------------|-----------|-----------|---|
| ACCT | 1010 | Principles of Accounting I | 3 | C | |
| ERS | 1300 | Oil: Business, Culture, & Power | 3 | C | Cross listed with ECON 1300; offered spring semester. |
| ERS | 2500 | Communication Across Topics in Energy | 3 | C | C2 |
| MATH | 2205 | Calculus II | 4 | C | |
| PHYS | 1210 | Engineering Physics I | 4 | C | PN |
| Credit hours subtotal: | | | <u>17</u> | | |

| Sophomore Fall Semester | | | Hrs | Min Grade | Notes |
|-------------------------|------|---|-----------|-----------|-------|
| USP Human Culture | | | 3 | | H |
| CHEM | 1020 | General Chemistry I | 4 | C | |
| ECON | 1020 | Principles of Microeconomics | 3 | C | H |
| ES | 1060 | Introduction to Engineering Problem Solving | 3 | C | |
| MATH | 2210 | Calculus III | 4 | C | |
| Credit hours subtotal: | | | <u>17</u> | | |

| Sophomore Spring Semester | | | Hrs | Min Grade | Notes |
|---------------------------|------|---------------------------------------|-----------|-----------|-------|
| CHEM | 1030 | General Chemistry II | 4 | C | |
| ES | 2310 | Thermodynamics I | 3 | C | |
| ES | 2330 | Fluid Dynamics | 3 | C | |
| MATH | 2310 | Applied Differential Equations I | 3 | C | |
| PETE | 2050 | Introduction to Petroleum Engineering | 3 | C | |
| Credit hours subtotal: | | | <u>16</u> | | |

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.

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| Junior Fall Semester | | | Hrs | Min Grade | Notes |
|------------------------|------|--------------------------------------|-----------|-----------|------------------------|
| MGT | 3210 | Management and Organization | 3 | C | |
| PETE | 3255 | Basic Drilling Engineering | 3 | C | |
| SOIL | 3130 | Environmental Quality | 3 | C | Offered fall semester. |
| STAT | 2050 | Fundamentals of Statistics | 4 | C | |
| | | Upper Division Economics Elective ** | 3 | C | |
| Credit hours subtotal: | | | 16 | | |

| Junior Spring Semester | | | Hrs | Min Grade | Notes |
|------------------------|------|--------------------------------|-----------|-----------|---|
| FIN | 3250 | Corporate Finance | 3 | C | |
| PETE | 3100 | Rock and Fluids Lab | 2 | C | |
| PETE | 3200 | Reservoir Mechanics | 3 | C | Offered spring semester. |
| PETE | 3265 | Drilling Fluids Lab | 3 | C | |
| GEOL | 4835 | Applied/Exploration Geophysics | 3 | C | Can substitute GEOL 4190 (Petroleum Geology). |
| Credit hours subtotal: | | | 14 | | |

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

| Senior Fall Semester | | | Hrs | Min Grade | Notes |
|------------------------|------|--|-----------|-----------|---|
| ENR | 4500 | Risk Analysis | 3 | C | |
| ENR | 4501 | Risk Analysis Lab | 1 | C | Concurrent enrollment in ENR 4500 required. |
| ENR | 4750 | ENR Law and Policy | 3 | C | Permission of instructor required; offered fall semester. |
| REWM | 4200 | Reclamation of Drastically Disturbed Lands | 3 | C | Permission of instructor required; offered fall semester. |
| | | Negotiation Elective **** | 3 | C | |
| | | Upper Division Elective | 3 | C | Consult with an academic advisor for courses from an approved list. |
| Credit hours subtotal: | | | 16 | | |

| Senior Spring Semester | | | Hrs | Min Grade | Notes |
|------------------------|------|-------------------------------------|-----------|-----------|---|
| DSCI | 4260 | Project Management | 3 | | |
| ERS | 4900 | Energy Resource Management Capstone | 3 | C3 | |
| | | Electives | 6 | | Consult with an academic advisor for courses from an approved list. |
| Credit hours subtotal: | | | 12 | | |

TOTAL CREDIT HOURS: 128

Energy Resource Management and Development Program Notes con't:

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

** **Upper Division Economics Elective.** Select one (1) from the following:

- AGEC 3750 Natural Resource Planning and Economics (3 hrs) (offered spring semester of odd years)
- AGEC 4600 Community Economic Analysis (3 hrs)
- AGEC 4720 Water Resource Economics (3 hrs)
- ECON 4420 Seminar: Economics for ENR (2-4 hrs)

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

- | | | | |
|----------|---|----------|---------------------------------------|
| ENR 3700 | Wyo Conservation Corps Practicum (1-2 hrs) | ERS 4965 | Undergraduate Research (1-3 hrs) |
| ENR 4970 | ENR Internship (1-6 hrs) | ERS 4970 | Internship (1-3 hrs) |
| ERS 4950 | Leadership in Natural Resources Mgt (2 hrs) | ERS 4975 | Global Experience in Energy (2-4 hrs) |
| ERS 4960 | Energy Field Studies (2 hrs) | | |

**** **Negotiation Elective.** Select one (1) from the following:

- AGEC/ENR 4550 Negotiation Analysis (3 hrs) (offered fall semester)
- AGEC/ENR 4450 Negotiation (3 hrs) (offered spring semester)