

**UNDERGRADUATE COUNCIL
Request for Change(s)**

Originating unit requesting change

Type of Change requested:

- | | | | | | |
|--------------------------|--------------------|--------------------------|------------------------|-------------------------------------|----------------------|
| <input type="checkbox"/> | Course number(s) | <input type="checkbox"/> | Course prerequisite(s) | <input type="checkbox"/> | Program description |
| <input type="checkbox"/> | Course title | <input type="checkbox"/> | Drop course(s) | <input checked="" type="checkbox"/> | Program requirements |
| <input type="checkbox"/> | Course description | <input type="checkbox"/> | Drop program(s) | | |

Semester and year change(s) take effect:

Appropriate computer abbreviation if
course title is more than 30 spaces:

Briefly summarize the change requested:

Programs Only

Program Name: _____

Current Code: _____ Proposed New Code (list 2): _____ or _____
(ex: INDE-BFA)

Can have second major: ____ Yes ____ No

Current 6-digit CIP Code: _____

Does the change require a new or change in CIP code? ____ Yes ____ No

If yes, what is the proposed 6-digit CIP code? _____

*for reference, please visit: <https://nces.ed.gov/ipeds/cipcode/resources.aspx?v=56>

Catalog copy

Present catalog copy (paste-up from catalog is acceptable).

Proposed change(s). (Include exact catalog copy as desired. Underline changes)

1. What is the justification for the change(s) requested?
2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.
3. **Faculty Resources:** How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)? YES
If yes, list additional resources needed. NO

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.



Approval signature of chairperson of originating unit

Energy Technology & Management Minor

The minor is intended for any major wishing to also minor in energy technology and management. It will help provide students with an understanding of the current/emerging technologies and management strategies associated with the energy business. The minor requires 18 credits from the programs and departments below. Nine credits must be upper level (30000 and above).

No more than two courses from any program or department listed below may count for this minor. No grade lower than "C" may be applied to the minor. Any course substitutions or exceptions must be approved by the program adviser.

Requirements

The program of study requires 18 semester hours, with a grade of C or better, selected from the options below:

Business

MANA 3065	Survey of Management	3
MARK 3065	Principles of Marketing	3
ENTR 30773	Entrepreneurship and Energy	3

Geography

GEOG 30323	Data Analysis and Visualization	3
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Environmental Science

ENSC 10143	Contemporary Environmental Issues	3
ENSC 30143	Introduction to Sustainability Science	3
ENSC 50703	Environmental Compliance	3
ENSC 50523	Introduction to Geographic Information Systems	3
ENSC 50333	Energy Development and Wildlife Conservation	3

Engineering

ENGR 10033	Engineering Design and Graphics	3
ENGR 40203	Engineering Economic Analysis	3
ENGR 40303	Petroleum Industry Overview	3
ENGR 30113	Energy in Society	3
ENGR 40213	Sustainable Energy	3
ENGR 40223	Petroleum Reservoir Management	3

Economics (only one 10000 level course from this group)

ECON 10223	Introductory Microeconomics	3
ECON 10233	Introductory Macroeconomics	3
ECON 30523	Resource and Energy Economics	3

Geology

GEOL 10113	Understanding the Earth	3
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GEOL 30363	Introduction to Geospatial Technology	3
GEOL 40423	Petroleum Engineering	3
GEOL 50563	Energy and Natural Resources	3
GEOL 50423	Petroleum Geology	3
GEOL 50523	Introduction to Geographic Information Systems	3

Physics

PHYS 10503	Energy	3
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Computer Science (only one course from this group)

COSE 10503	Introduction to Programming for Engineering & Science	3
COSE 10603	Introduction to Python for Data Analytics	3
COSE 10403	Introduction to Programming	3

Energy Technology and Management

ENTM 40970	Directed Studies in Energy Technology and Management	1-3
ENTM 40803	Advanced Readings in Energy	3
ENTM 40903	Energy Internship	3

New Courses

BUSI-30703 Survey of the Energy Industry – Introduction to the full spectrum of oil, natural gas, natural gas liquids, power and alternative/renewable energy sources.

BUSI-40723 Electric Power Industry – The business of producing, transmitting and distributing electric power. All sources of power are covered along with the value chain from point of production to point of consumption and the various players in the industry.

BUSI-40733 Alternative & Renewable Energy – The production of energy from non-fossil fuel sources.

BUSI-40703 Energy Marketing, Trading & Hedging – Physical and financial energy markets with a focus on pricing, financial derivatives, hedging of price risk, transportation and storage economics, regulatory issues.

To be removed