Energy Business and Finance, Minor

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description
The minor in Energy, Business and Finance is an offering of the College of Earth and Mineral Sciences. The minor introduces students to financial, investment, and management concepts applied to private sector organizations whose operation emphasizes the Earth and its environment, the energy and mineral industries, or the development of new and enhanced materials. The minor focuses on the leadership and information strategies characteristic of enterprises that are succeeding in a rapidly integrating global economy.

The minor provides science and engineering students an introduction to basic entrepreneurial and business concepts to help prepare them for success in a changing professional environment. It also provides other Penn State students an opportunity to focus on business strategies in the Earth resources, environmental, and materials industries. A minimum of 27 credits is required for the minor. A student enrolled in this minor must receive a grade C or better in all courses in the minor. Advising is available through the EMS Student Center (14 Deike Building) or the professor in charge.

What is Energy Business and Finance?
The solutions to society’s existing and emerging energy challenges require interdisciplinary approaches integrating economics and business with the technical knowledge of energy systems and implications for our environment. That’s where energy business and finance experts come in. The minor in Energy Business and Finance provides an introduction to the major energy commodity markets, basic energy sciences and the tools for analyzing business decisions that companies in the energy sector make. It is designed to complement technical training for students interested in working in energy-related fields or for students who just want to learn more about global energy markets.

You Might Like This Program If...
- You want to work in the energy sector.
- You enjoy analytical thinking and complex problem solving.
- You are majoring in a STEM field with an eye on the energy sector, and want to broaden your education to include the study of economics, business and energy markets.

Program Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Requirements for the Minor</td>
<td>27-29</td>
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Requirements for the Minor
A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certiﬁcates/#59-10). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student’s major(s).

Academic Advising
The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and-out of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>EBF 200</td>
<td>Introduction to Energy and Earth Sciences Economics</td>
<td>3</td>
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<tr>
<td>EBF 301</td>
<td>Global Finance for the Earth, Energy, and Materials Industries</td>
<td>3</td>
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<tr>
<td>ECON 102</td>
<td>Introductory Microeconomic Analysis and Policy</td>
<td>3</td>
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<tr>
<td>EME 460</td>
<td>Geo-resource Evaluation and Investment Analysis</td>
<td>3</td>
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Additional Courses
Select 3-4 credits from:
- MATH 22 College Algebra II and Analytic Geometry
- MATH 110 Techniques of Calculus I
- MATH 140 Calculus With Analytic Geometry I

Select 3-4 credits from:
- EBF 472 Quantitative Analysis in Earth Sciences
- STAT 200 Elementary Statistics
- STAT 401 Experimental Methods

Select 3 credits of the following:
- EGEE 101 Energy and the Environment
- EGEE 102 Energy Conservation for Environmental Protection
- EGEE 120 Oil: International Evolution

Supporting Courses and Related Areas
Select 6 credits from the approved list of EMS courses.

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<tr>
<td>EBF 401</td>
<td>Strategic Corporate Finance for the Earth, Energy, and Materials Industries</td>
<td>3</td>
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<tr>
<td>EBF 402</td>
<td>Energy Law and Contracts</td>
<td>3</td>
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<tr>
<td>EBF 473</td>
<td>Risk Management in Energy Industries</td>
<td>3</td>
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<tr>
<td>EBF 483</td>
<td>Introduction to Electricity Markets</td>
<td>3</td>
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<tr>
<td>EBF 484</td>
<td>Energy Economics</td>
<td>3</td>
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<tr>
<td>EGEE 401</td>
<td>Energy in a Changing World</td>
<td>3</td>
</tr>
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<td>EME 444</td>
<td>Global Energy Enterprise</td>
<td>3</td>
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<td>GEOG 424</td>
<td>Geography of the Global Economy</td>
<td>3</td>
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<td>GEOG 430</td>
<td>Human Use of Environment</td>
<td>3</td>
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<tr>
<td>GEOG 431</td>
<td>Geography of Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 432</td>
<td>Energy Policy</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>African Resources and Development</td>
<td>3</td>
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<tr>
<td>GEOG 469</td>
<td>Energy Industry Applications of GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOSC 402Y</td>
<td>Natural Disasters</td>
<td>6</td>
</tr>
<tr>
<td>GEOSC 454</td>
<td>Geology of Oil and Gas</td>
<td>3</td>
</tr>
<tr>
<td>METEO 473</td>
<td>Application of Computers to Meteorology</td>
<td>3</td>
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</tbody>
</table>
in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

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