ENERGY ANALYSIS AND POLICY, DOCTORAL MINOR

Admissions to the Energy Analysis and Policy doctoral minor have been suspended as of fall 2022 and will be discontinued as of fall 2026. If you have any questions, please contact the department.

Those wishing to pursue Energy Analysis and Policy to fulfill their doctoral breadth requirement may do so through the Energy Analysis and Policy graduate certificate (http://guide.wisc.edu/graduate/environmental-studies/energy-analysis-policy-graduate-professional-certificate/).

The Energy Analysis and Policy (EAP) doctoral minor provides Ph.D. students with the opportunity to customize their graduate experience and add energy training to their degree program at the University of Wisconsin-Madison. The EAP doctoral minor fulfills the "Option A" minor requirement for Ph.D. students and adds an energy credential to one’s transcript. Graduate students can complete either the EAP doctoral minor or the EAP graduate certificate (http://guide.wisc.edu/graduate/environmental-studies/energy-analysis-policy-graduate-professional-certificate/), but not both.

Since its formation in 1980, EAP has provided students with the skills and knowledge needed by professionals in government, energy companies, consulting firms, and other organizations. EAP draws students from across campus. Particularly large student groups from public policy, environmental studies, engineering, and urban planning pursue the certificate because of the program’s interdisciplinary curriculum which considers a wide range of technical, economic, political, and social factors that shape energy policy formulation and decision-making.

ADMISSIONS

Admissions to the Energy Analysis and Policy doctoral minor have been suspended as of fall 2022 and will be discontinued as of fall 2026. If you have any questions, please contact the department.

EAP welcomes applications from students in any doctoral degree program at UW-Madison. Students may apply to the EAP program concurrently with their graduate school application or once they have matriculated at UW-Madison.

While there are no prerequisites to the program, it is recommended that EAP applicants have completed at least one college-level course in each of the following five subject areas: physical science (physics or chemistry); natural science (biology, environmental, geology or atmospheric and oceanic); economics; social sciences or humanities (besides economics); and calculus or statistics.

HOW TO APPLY

To apply for the EAP doctoral minor, students must complete the online Energy Analysis and Policy (EAP) application form (https://go.wisc.edu/EAP-apply/), which includes the following elements:

1. Information on prior educational attainment
2. Information on degree program being pursued
3. A brief statement of interest in the EAP program

DEADLINES

Applications to EAP may be submitted at any time, but applicants are encouraged to apply early in their graduate career to ensure timely completion of doctoral minor requirements and to access additional benefits (e.g. funding, networking events) available exclusively to students in the EAP program. Students may take courses that meet the minor requirements prior to completing their application.

REQUIREMENTS

Each EAP student must complete four courses (12 credits), including an introductory course, a capstone course, and one course from each of two categories: Energy Analysis and Energy Policy. Courses in the Energy Analysis category involve quantitative analysis of the technical and economic factors that shape society’s use of energy resources. Courses in the Energy Policy category involve the social, political, and environmental factors that underly decision-making around energy choices.

Some courses listed in the Energy Analysis category may have some overlap with the Energy Policy category, and vice versa. Students who wish to use a course for the opposite category that it is listed in should submit a written request to the Academic Coordinator or Faculty Chair. Students should provide a course syllabus and a written justification for why the course should qualify for the other category in the context of their overall course of study, with the EAP Chair making the final decision on whether to accept the request.

The following courses are offered regularly, though other courses (with approval by the EAP faculty program committee) may fulfill one of the requirements below (see note under Other Qualifying Courses (p. 2)).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIR ST/</td>
<td>Introduction to Energy Analysis and Policy</td>
<td>6</td>
</tr>
<tr>
<td>PUB AFFR/</td>
<td>Energy Analysis and Policy Capstone</td>
<td></td>
</tr>
<tr>
<td>URB R PL 809</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVIR ST/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUB AFFR/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>URB R PL 810</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Energy Analysis

Choose one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A A E/ECON 371</td>
<td>Energy, Resources and Economics</td>
</tr>
<tr>
<td>A A E/ENVIR ST/ POP HLTH/ PUB AFFR 881</td>
<td>Benefit-Cost Analysis</td>
</tr>
<tr>
<td>AGROECOL/ AGRONOMY/ ENVIR ST 724</td>
<td>Agroecosystems and Global Change</td>
</tr>
<tr>
<td>ENVIR ST/ A A E/ECON/ URB R PL 671</td>
<td>Energy Economics</td>
</tr>
<tr>
<td>BSE 460</td>
<td>Biorefining: Energy and Products from Renewable Resources</td>
</tr>
</tbody>
</table>
CBE 562  Special Topics in Chemical Engineering (Topic: Energy and Sustainability)

CIV ENGR/GE E 421  Environmental Sustainability Engineering

CIV ENGR 639  Special Topics in Geotechnical Engineering (Topic: Wind Energy Site/Design)

EECE 356  Electric Power Processing for Alternative Energy Systems

EECE 427  Electric Power Systems

ENVIR ST/BSE 367  Renewable Energy Systems

ME 466  Air Pollution Effects, Measurements and Control

or CIV ENGR 423  Air Pollution Effects, Measurement and Control

ME 469  Internal Combustion Engines

ME/CBE 567  Solar Energy Technology

NE 571  Economic and Environmental Aspects of Nuclear Energy

Energy Policy  3

Choose one of the following:

ENVIR ST 349  Climate Change Governance

ENVIR ST/ATM OCN 355  Introduction to Air Quality

ENVIR ST/ECON/POLI SCI/URB R PL 449  Government and Natural Resources

ENVIR ST/POP HLTH 471  Introduction to Environmental Health

ENVIR ST/POP HLTH 502  Air Pollution and Human Health

ENVIR ST/POLI SCI/PUB AFFR 866  Global Environmental Governance

GEOSCI/ENVIR ST 411  Energy Resources

LAW 848  Introduction to Environmental Law

POP HLTH/M&ENVTOX 789  Principles of Environmental Health: A Systems Thinking Approach

Total Credits  12

OTHER QUALIFYING COURSES

Because the scheduling of the preceding courses is coordinated with the needs of their home departments, EAP cannot guarantee that specific courses will always be offered at specific times or rotations. Each semester, the EAP program faculty will consider other qualifying courses for the upcoming semester that fulfill one of the categories above. Once approved, the EAP Academic Coordinator will distribute a list of course offerings for the upcoming semester to students in the EAP program.

COURSE SUBSTITUTIONS

Students may propose course substitutions by contacting the Academic Coordinator or the Faculty Chair. The EAP Chair makes the final decision. Students should provide a course syllabus and a letter of endorsement from the faculty member teaching the course, preferably before the start of the course. The substitution proposal will be considered based upon the following criteria:

1. the extent to which the course content is devoted to energy
2. the rigor of methodology applied to the course material
3. the context of the class with respect to the student’s study plan

PEOPLE

For up-to-date contact information of EAP faculty and staff, visit eap.wisc.edu/faculty (https://eap.wisc.edu/faculty/)

EAP FACULTY PROGRAM COMMITTEE

Tracey Holloway (Certificate Chairperson), Morgan Edwards, Bernard Lesieutre, Ben Lindley, Gregory Nemet, Jonathan Patz, Brad Pierce, Scott Williams, Paul Wilson, Steph Tai (Ex Officio)

EAP FACULTY AFFILIATES


EAP PROGRAM STAFF

Mac Gale, Michael Kamp, Paul Meier, Scott Williams