

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

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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 EAP 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)).

Code	Title	Credits
Required Courses		6
ENVR ST/ PUB AFFR/ URB R PL 809	Introduction to Energy Analysis and Policy	
ENVR ST/ PUB AFFR/ URB R PL 810	Energy Analysis and Policy Capstone	
Energy Analysis		3
Choose one of the following:		
A A E/ECON 371	Energy, Resources and Economics	
A A E/ENVR ST/ POP HLTH/ PUB AFFR 881	Benefit–Cost Analysis	
AGROECOL/ AGRONOMY/ ENVR ST 724	Agroecosystems and Global Change	
ENVR ST/ A A E/ECON/ URB R PL 671	Energy Economics	
BSE 460	Biorefining: Energy and Products from Renewable Resources	

CBE 562	Special Topics in Chemical Engineering (Topic: Energy and Sustainability)
CIV ENGR/ G L E 421	Environmental Sustainability Engineering
CIV ENGR 639	Special Topics in Geotechnical Engineering (Topic: Wind Energy Site/Design)
E C E 356	Electric Power Processing for Alternative Energy Systems
E C E 427	Electric Power Systems
ENVIR ST/ BSE 367	Renewable Energy Systems
M E 466	Air Pollution Effects, Measurements and Control
or CIV ENGR 423	Air Pollution Effects, Measurement and Control
M E 469	Internal Combustion Engines
M E/CBE 567	Solar Energy Technology
N E 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, Anna Gade (Ex Officio)

EAP FACULTY AFFILIATES

Rob Anex, Vicki Bier, Michael Cardiff, Xiaodong Du, Michael Ferris, Alyson Fleming, Holly Gibbs, Ruth Goldstein, Thomas Grist, Andrea Hicks, Sarah Johnston, J. Paul Kelleher, Rebecca Larson, Steven Loheide, Douglas Reinemann, Line Roald, Oliver Schmitz, James Tinjum, Matt Turner, Daniel Vimont, Christopher Zahasky, Victor Zavala

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