

# ENERGY ANALYSIS AND POLICY, GRADUATE/ PROFESSIONAL CERTIFICATE

## REQUIREMENTS

Each EAP student must complete five courses (13 credits), including an introductory course, a capstone course, a professional skills seminar, 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
<b>Required Courses</b>		
ENVIR ST/ PUB AFFR/ URB R PL 809	Introduction to Energy Analysis and Policy	3
ENVIR ST/ PUB AFFR/ URB R PL 810	Energy Analysis and Policy Capstone	3
<b>Seminar</b> 1		
ENVIR ST 909	Professional Skills in Energy Analysis and Policy	
or		
ENVIR ST 900	Seminar (Topic: Prof Skills in Energy Analysis and Policy)	
<b>Energy Analysis</b> 3		
Choose one of the following:		
A A E/ECON 371	Energy, Resources and Economics	
A A E/ENVIR ST/ POP HLTH/ PUB AFFR 881	Benefit-Cost Analysis	
AGROECOL/ AGRONOMY/ ENVIR ST 724	Agroecosystems and Global Change	

ENVIR ST/ A A E/ECON/ URB R PL 671	Energy Economics
BSE 460	Biorefining: Energy and Products from Renewable Resources
CBE 512	Energy Technologies and Sustainability
CIV ENGR/ G L E 421	Environmental Sustainability Engineering
CIV ENGR/ G L E 535	Wind Energy Balance-of-Plant 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
E P D 731	Energy Efficiency in Buildings
M E 466	Air Pollution Effects, Measurements and Control
or CIV ENGR 42	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/ GEOG 439	US Environmental Policy and Regulation
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/ POP HLTH 739	Climate Change, Human and Planetary Health <sup>1</sup>
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
URB R PL 551	Climate Action Planning: Sustainable Transportation

### Total Credits 13

1

Because this is a 2-credit course, students selecting this course option are required to take an additional 1-credit course in consultation with the certificate coordinator.

## **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