**Detailed Plan of Study Form**

**UNIVERSITY OF DELAWARE Energy and Environmental Policy Program**  
Administered by the Center for Energy and Environmental Policy  
PhD-ENEP Plan of Study  
[Also found online at ceep.udel.edu]

<table>
<thead>
<tr>
<th>Name (Last, First, M.I.)</th>
<th>Entry Term</th>
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### DEGREE REQUIREMENTS

#### 1. Required Courses

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
<th>Semester/Year</th>
<th>Grade</th>
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<tbody>
<tr>
<td>ENEP 821 Technology, Environment and Society (Fall)</td>
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<tr>
<td>ENEP 820 International Perspectives on Energy &amp; Environmental Policy (Spring)</td>
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#### 2. Methods Requirements

Six credits of methodology course work are selected from the following list of three-credit courses.

**List of methodology courses satisfying the Methodology Requirement:**
- ENEP 660 Engineering Economic Analysis for Sustainable Energy (Fall)
- APEC 682 Spatial Analysis of Natural Resources (Fall) - Not offered in 2014 Fall
- APEC 601 Survey of Operations Research (Fall) - Not offered in 2014 Fall
- APEC 602 Survey Operations Research II (Spring) - Not offered in 2015 Spring
- APEC 603 Simulation Modeling & Analysis (Spring) - Not offered in 2015 Spring
- APEC 807 Math Programming with ECON App (Fall)
- ECON 801 Microeconomics (Fall)
- ECON 802 Macroeconomics (Fall)
- ENWC 615 Wildlife Research Techniques (Spring)
- GEOG 604 GIS for Environmental Research (Spring)
- GEOG 670 Geographic Information Systems and Science (Fall)
- GEOG 671 Advanced Geographic Information Systems (Fall & Spring)
- MAST 663 Decision Tools for Policy Analysis (Fall)
- MAST 672 Applied Policy Analysis (Fall)
- MAST 681 Remote Sensing of the Environment (Fall) - Not offered in 2014 Fall
- POSC 816 Philosophy of Science and Research Design (Fall)
- STAT 608 Statistical Research Methods (Fall & Spring)
- UAPP 691 Quantitative Analysis in the Public and Non-profit Sectors (Fall)
- UAPP 801 Processes of Social Inquiry (Spring)
- UAPP 808 Qualitative Research Methods for Program Evaluation (Spring)

For individuals with strong backgrounds in economics, the following 3-credit methods courses may be added to the above list for selection:

- ECON 803 Applied Econometrics I (Fall)
- ECON 804 Applied Econometrics II (Spring)
- ECON 810 Mathematics for Economics (Fall)
- ECON 822 Econometric Theory I (Fall)
- ECON 823 Econometric Theory II (Spring)

Note: All courses on the above list are offered annually.
### Course Number and Title

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### 3. Social Science Requirements

Six credits of social science course work are selected from the following list of 3 credit courses:

- **List of social science courses satisfying the Social Science Requirement:**
  - ENEP 625 Energy Policy and Administration (Fall)
  - ENEP 626 Climate Change: Science, Policy and Political Economy (Spring)
  - ENEP 661 Sustainable Energy Finance (Spring)
  - ENEP 802 Electricity Policy and Planning (Fall)
  - ENEP 810 Political Economy of the Environment (Fall)
  - ENEP 824 Sustainable Energy Policy and Planning (Spring)
  - ENEP 666 Special Problem: Topics in Energy Policy (Fall & Spring)
  - ENEP 666 Special Problem: Topics in Political Economy of Energy & Environment (Fall & Spring)
  - ENEP 666 Special Problem: Topics in Sustainable Development (Fall & Spring)
  - ENEP 666 Special Problem: Comparative Environmental Politics (Fall & Spring)
  - ENEP 868 Research: Environmental Justice Issues (Fall & Spring)
  - ENEP 868 Research: Political Economy of Energy & Environment (Fall & Spring)
  - ENEP 868 Research: Sustainable Development Issues (Fall & Spring)
  - ENEP 868 Research: Sustainable Energy Policy (Fall & Spring)
  - ENEP 868 Research: Sustainable Water Policy (Fall & Spring)
  - ENEP 870 Readings: Climate Change Politics and Policy (Fall & Spring)
  - ENEP 870 Readings: Energy Economics (Fall & Spring)
  - ENEP 870 Readings: Energy Policy (Fall & Spring)
  - ENEP 870 Readings: Environmental Ethics (Fall & Spring)
  - ENEP 870 Readings: Environmental Justice (Fall & Spring)
  - ENEP 870 Readings: Political Economy of Energy & Environment (Fall & Spring)
  - ENEP 870 Readings: Postmodernism and Environmentalism (Fall & Spring)
  - ENEP 870 Readings: Sustainable Development (Fall & Spring)
  - ENEP 870 Readings: Sustainable Energy Options (Fall & Spring)
  - ENEP 870 Readings: Sustainable Water Options (Fall & Spring)
  - DISA666 Special Problem: Disaster Science and Management (Fall & Spring)
  - DISA 866 Special Problem: Disaster Science and Management (Fall & Spring)
  - ECON 862 Topics in Industrial Organization and Regulation (Fall)
  - ENWC 613 Wildlife Policy and Administration (Fall)
  - GEOG 622 Resources, Development and the Environment (Spring)
  - MAST675 Economics of Natural Resources (Fall)
  - MAST676 Environmental Economics (Spring)
  - MAST 660 International Ocean & Environmental Policy (Fall)
  - SOCI 671 Disasters, Vulnerability and Development (Spring)
  - UAPP 611 Regional Watershed Management (Spring)
  - UAPP 706 Planning Sustainable Communities and Regions (Spring)

Note: Not all courses on the above list are offered annually.

Students complete the science, engineering and public policy requirement by choosing a three-credit graduate course (including a tutorial course with a number such as ENEP 666, ENEP 866, ENEP 868 or ENEP 870) in a natural science or engineering related topic to meet the science, engineering and public policy requirement. The course must be taken with a member of the University's science or engineering faculty and should be linked to the student's research interest.

Example courses satisfying the Science, Engineering and Public Policy Requirement include (but are not limited to):

- BISC 635 Population Ecology (Spring)
- CIEG 632 Chemical Aspects: Environmental Engineering (Fall)
- CIEG 636 Biological Aspects: Environmental Engineering (Fall)
- CIEG 650 Urban Transportation Systems (Spring)
- CIEG 654 Urban Transportation Planning (Spring)
- CIEG 655 Civil Infrastructure Systems (Fall)
- CIEG 666 Special Problem: Science & Engineering Aspects of Agricultural Systems (Fall & Spring)
- CIEG 666 Special Problem: Science & Engineering Aspects of Water Systems (Fall & Spring)
- ELEG 620 Photovoltaic Materials and Devices (Fall & Spring)
- ELEG 628 Solar Energy Technology and Application (Spring)
- ELEG 637 Energy Systems (Fall)
- ENWC 620 Behavioral Ecology (Spring)
- GEOG 652 Seminar in Climatology (Fall)
- MAST 601 Introduction to Oceanography (Fall)
- MAST 606 Ocean & Atmosphere Remote Sensing (Spring)
- MEEG 642 Introduction to Fuel Cells (Fall & Spring)

Note: All courses on the above list are offered annually. Please see your faculty advisor and CEEP director for more options.

5. Qualifying Examination in Theory, Methodology and Policy Analysis

Date Passed Qualifying Exam: _______________________________
6. Specialization Requirement

Fifteen credit hours including the 3 credit Doctoral Dissertation Proposal (ENEP 863)

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<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td>ENEP 863 Doctoral Dissertation Proposal</td>
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Title: ____________________________________________

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7. Doctoral Dissertation Requirement

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<th>Semester/Year</th>
<th>Grade</th>
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<tbody>
<tr>
<td>ENEP 969 Doctoral Dissertation</td>
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Date of Admission to Candidacy: ____________________________

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1 Contact the Director of CEEP, ENEP Program Director or CEEP administrative office for more information on the requirements of each of the seven concentrations: Disasters and Policy, Sustainable Energy, Water Sustainability, Environmental Justice, Political Ecology, Global Environments, or Sustainable Development. Alternatively, students may design a Specialization with the approval of their faculty advisor.
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<th>Diploma Title:</th>
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<th>Dissertation Committee:</th>
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<td>Chair:</td>
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<td>Member:</td>
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<td>Member:</td>
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| Approval of Advisor:  Date: |
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| __________________________ |    |