

Energy and Environmental Policy

Master of Energy and Environmental Policy

MEEP Handbook 2017-2018

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WELCOME TO THE MEEP DEGREE PROGRAM

The Master of Energy and Environmental Policy (MEEP) equips students for careers in energy and environmental fields through courses focused on social science, science, engineering and research methods related to the key sustainability challenges within the United States and throughout the world.

Administered by the Center for Energy and Environmental Policy

The ENEP program provides leadership for the MEEP degree. The degree is one of the first interdisciplinary graduate degrees in the U.S. in Energy and Environmental Policy. The MEEP degree provides opportunities for collaboration with faculty working on research projects in conjunction with local, state, national, international and non-governmental partner organizations, and pressing for the integration of social justice in energy and environmental policy development by engaging academic and professional discourses.

Choose Your Career Path

Students who graduate with a MEEP degree are prepared for rewarding academic and professional careers in subject areas such as renewable energy, environmental protection, sustainable development, and climate change policy. Graduates hold positions as energy and environmental planners, policy analysts, program managers, and researchers in the public, private and non-profit sectors. Graduates serve in local and national governments, international agencies, research and policy institutions, consulting firms, energy utilities, and corporate departments with responsibilities for energy and environmental matters. Energy and environmental policy is a dynamic field with numerous career opportunities.

MEEP FACULTY

Core Faculty



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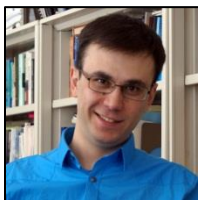
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MEEP DEGREE REQUIREMENTS

In order to fulfill the requirements for graduation, students must successfully complete 36 credit hours that fulfill university, concentration-specific course requirements and electives, and must maintain a 2.0 grade point average (GPA) in order to graduate. These credit hours include 6 mandatory credit hours, at least 6 credit hours under the Methodology requirement, at least 6 credit hours under the Social Science requirement, at least 3 credit hours under the Science, Engineering and Public Policy Requirement and 15 credit hours that could be completed in one of two ways:

1. A Master's Thesis (6 credit hours) + 9 credit hours of Specialization Courses
2. Analytical Paper (3 credit hours) + 12 credit hours of Specialization Courses

Meeting with your Advisor

Your advisor is your assigned faculty member that will help guide you through your time here at ENEP. Your faculty advisor must be a member of the core faculty (see pages 2 & 3). The frequency with which you meet your advisor depends on many issues. We ask you to meet with your advisor on a regular basis. Of course, the frequency also differs as to your personal preference, but most students meet with their advisor at least once a month. This will keep your advisor updated on your general progress, and will give you the opportunity to inform your advisor about any new potential plans you might have. Your advisor can help you with a range of different issues such as selecting a specific course that fits your plan of study, and advise you of internship possibilities for which you are qualified, and can help you with general advisement.

Registering for Classes

New students should wait to register for courses until the day of orientation. At orientation, the ENEP faculty will introduce themselves and there is an opportunity to meet with your advisor and discuss your plan of study. Your advisor will go through the first semester with you to ensure that your course package is suitable for your plans and fits with ENEP course requirements.

Continuing students should meet with their faculty advisor before registering for courses.

You can register for courses at <https://udel.onecampus.com/>. Choose or search for the *UDSIS for Students* tile. After you log-in to UDSIS, you should go to your personal Student Center. Here, you can get information on a wide range of topics, such as your grades, transcripts, your financial standing with UD, courses taken, and your demographic data, and you can also register for the courses you're planning on taking next semester.

Registration for independent study courses (ENEP666, ENEP866, ENEP868 and ENEP870) requires the assistance of the ENEP Program Coordinator. A form (See Appendices) must be completed with the instructor's signature before registration.

Not sure about which courses you can choose from? A selection of courses is included in this handbook to provide you with an idea of the courses that fit well with the ENEP requirements. If you want to see which courses are offered outside of the courses mentioned here, you can take a look at the UD course catalog. You can find class listing for current and past semesters at <http://www1.udel.edu/registrar/course-info-registration/class-listing-archive.html>.

Throughout your study, we recommend that you discuss your selection of courses with your advisor. You are also encouraged to discuss your course selection with fellow students. The ENEP study committee has taken most of the courses offered to ENEP students and can, therefore, provide you with some first-hand advice. Also, make sure to select your courses prior to the start of the semester (except for your very first semester as you need to wait for orientation) and on time.

Course Requirements

Core Policy Courses

Two required 3 credit seminars:

ENEP 625 Energy Policy & Administration (Fall)
ENEP 810 Political Economy of the Environment (Fall)

Methods Requirement

Six credits of methodology course work are selected from the following list of 3 credit courses. Other UD courses may be substituted with the prior permission of your faculty advisor and the ENEP Program Director.

List of methodology courses satisfying the Methodology Requirement:

ENEP 660 Engineering Economic Analysis for Sustainable Energy (Fall)
ECON 801 Microeconomics (Fall)
ECON 802 Macroeconomics (Fall)
ECON 803 Applied Econometrics I (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) – Not offered in Fall 2016
MAST 663 Decision Tools for Policy Analysis (Fall)
MAST 672 Benefit-Cost Analysis (Fall)
MAST 681 Remote Sensing of the Environment (Fall) - Not offered in 2015 Fall
POSC 815 Introduction to Statistical Analysis for Political Science (Fall)
POSC 816 Philosophy of Science and Research Design (Fall)

SOCI 605 Data Collection and Analysis (Fall)
SOCI 606 Qualitative Methodology (Spring)
STAT 608 Statistical Research Methods (Fall & Spring)
UAPP 691 Quantitative Analysis in the Public and Non-profit Sectors (Fall)
UAPP 808 Qualitative Research Methods for Program Evaluation (Spring)

**Note: Not all courses listed above are offered annually.*

Social Science Requirement

Six credits of social science course work are selected from the following list of 3 credit courses. Other UD courses may be substituted with the prior permission of your faculty advisor and the ENEP Graduate Program Director.

List of social science courses satisfying the Social Science Requirement:

ENEP 626 Climate Change: Science, Policy and Political Economy (Spring)
ENEP 661 Sustainable Energy Finance (Spring)
ENEP 802 Electricity Policy and Planning (Fall)
ENEP 820* International Perspectives on Energy and Environmental Policy (Spring)
ENEP 821* Technology, Environment, and Society (TES) (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: Environmental Policy (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: Environmental Policy (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)
DISA 866 Special Problem: Disaster Science and Management (Fall & Spring)

DISA 666 Special Problem: Disaster Science and Management (Fall & Spring)
ECON 862 Topics in Industrial Organization and Regulation (Fall) – Not offered in Fall 2015
ENWC 613 Wildlife Policy and Administration (Fall)
GEOG 622 Resources, Development and the Environment (Spring)
MAST 660 International and National Ocean Policies (Fall)
MAST 675 Economics of Natural Resources (Fall)
MAST 676 Environmental Economics (Spring)
SOCI 671 Disasters, Vulnerability and Development (Fall)
UAPP 611 Regional Watershed Management (Spring)

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

**MEEP Students considering application to the ENEP PhD should not enroll in these courses during their master's study.*

Science, Engineering and Public Policy Requirement

Students complete the science, engineering and public policy requirement by choosing a 3 credit graduate course (including a tutorial course with a number such as 666, 868 or 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.

Science, Engineering and Public Policy Requirement Courses include (but are not limited to):

BISC 635 Population Ecology (Spring) Not offered in Spring 2016
CIEG 632 Chemical Aspects: Environmental Engineering (Fall)
CIEG 636 Biological Aspects: Environmental Engineering (Fall)
CIEG 650 Urban Transportation Systems (Fall)
CIEG 654 Urban Transportation Planning (Spring)
CIEG 655 Civil Infrastructure Systems (Fall) Not offered in Fall 2015
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)
ELEG 628 Solar Energy Technology and Applications (Spring)
ELEG 637 Energy Systems (Fall)
MAST 601 Introduction to Oceanography (Fall) Not offered in Fall 2015
MAST 606 Ocean & Atmosphere Remote Sensing (Spring)
MEEG 642 Introduction to Fuel Cells (Fall & Spring)

**Note: Not all courses on the above list are offered annually. Please see your faculty advisor and ENEP director for more options.*

Thesis or Analytical Paper Requirement

Each student must complete a 6-credit thesis or 3-credit analytical paper that demonstrates independent critical analysis.

For the Master's degree with thesis, the student prepares and defends a research thesis. In this case, the student registers for six credits of Master's Thesis. The thesis is supervised by a committee of three faculty chaired by the student's faculty advisor.

The analytical paper is prepared under the supervision of the student's faculty advisor, with the additional advice of one other faculty or professional reader (selected by agreement of the student and the advisor). The faculty advisor and reader conduct a defense of the analytical paper and decide the final grade. The analytical paper focuses on a specific policy issue and is based on independent research by the student.

ENEP Course Descriptions

The Graduate Catalog (<http://academiccatalog.udel.edu/>) provides an overview of the courses offered at UD. More specifically, the UD Course Catalog (<http://primus.nss.udel.edu/CourseDesc/index.action>) allows a detailed search and description of all the courses offered at UD. Below, we describe some of the core ENEP courses. Graduate courses have numbers that are 600 or higher.

For courses with an asterisk (*), students are required to complete a Tutorial Course Registration form and submit it to the ENEP Program Coordinator. Only the Program Coordinator can register a student for this course.

ENEP 625 Energy Policy and Administration

This course analyzes energy use and energy policy with respect to politics, society, economics, political economy, technology, resources, and environment. The course focuses on interrelationships among energy, environment, economy and equity (E4). It considers the energy policy options needed to achieve a more sustainable world. Students successfully completing this course will achieve an understanding of the major issues in energy policy. They will be prepared to conduct energy policy analysis and they will have a basic knowledge of energy concepts and energy systems.

ENEP 626 Climate Change: Science, Policy and Political Economy

In the last decade, science has gained increasing confidence that anthropogenic release of CO₂, largely from fossil fuel combustion, is driving a change in atmospheric concentrations of greenhouse gases, with implications for earth's climate and ecosystems. The scale of implied change, while uncertain, stands to affect human populations (and other species) in potentially very negative ways, from altered patterns of rainfall and drought to the emergence

of new pathogens, rising sea levels, and the migration of species to new territories. Indigenous livelihoods, crop production, urban infrastructure, present patterns of trade and migration, and quite possibly human survival – all may be threatened under more severe scenarios of climate change.

This course attempts to explain the science of climate change and to characterize existing policy responses, to date. Specific attention is given to exploring the political-economic dimensions of current policy pathways in most of the world's nations, which have yet to produce a meaningful response to the phenomenon of ever-increasing CO₂ emissions. Also explored are theoretical perspectives grounded in the discourses of sustainability and equity, which are critical of current pathways and seek opportunities for energy reform that can advance both meaningful CO₂ reductions and opportunities for wider socially beneficial outcomes.

ENEP 660 Engineering Economic Analysis for Sustainable Energy

The course covers economic evaluation approaches, metrics, and level of detail required for making sound economic decisions in sustainable energy project development. Students will learn about discounting (i.e. time value of money), financing methods (loans, mortgages, bonds, etc.), economic metrics (NPV, IRR, BCR, LCOE, etc.), and policy impacts (tax credits, capital rebates, accelerated depreciation, RECs, etc.) on wider adoption of sustainable energy systems.

ENEP 661 Sustainable Energy Finance

This course covers the financing structures and strategies utilized in developing sustainable energy projects, including solar, wind, hydroelectric, biomass and energy efficiency. This course is built on real-world examples from projects implemented around the world to provide a practical understanding of the financial analysis, policies and business perspectives required to implement sustainable energy projects. This course explores traditional project finance (debt and equity) and emerging structures (Investment Trusts, Energy Service Agreements, Crowd-Funding, and others) as tools to evaluate the financial value and project risk profile from the perspective of all the relevant parties of a successful transaction. This course is designed to be interactive utilizing a combination of lectures, guest practitioner discussions, in-class exercises and a group project to engage students in a participatory learning process to explore issues regarding sustainable energy finance.

*ENEP 666 Special Problem**

The course is an in-depth independent study between a student and professor to provide students with the opportunity to investigate an energy or environmental policy area of their choice.

ENEP 802 Electricity Policy and Planning

This course analyzes the technological and regulatory policy evolution of the electricity industry. Emphasis is placed on the American experience with a comparative analysis of other national experiences. It also considers how technology innovations and

policy/regulatory actions have guided the planning of the industry from its early days, and current technology and policy issues facing the industry and regulators.

ENEP 810 Political Economy of the Environment

Relations between societies and nature are, and have always been, complex. But contemporary relations and their manifestations are signals for many that fundamental problems exist. For example, socio-physical phenomena such as acid rain, urban air pollution, deforestation, thinning of the upper atmospheric ozone layer, rising rates of species extinction, mounting threats to biodiversity, and the prospect of global warming suggest that human activities are disrupting ecosystems. Political-economic phenomena such as ecological imperialism, environmental commodification, unsustainable development, widening environmental injustice, and increasing threats to the livelihood basis of indigenous peoples suggest that the human toll of modern life is equally serious.

This course provides an interdisciplinary review and analysis of several theories and policy orientations developed over the last half century to explain and shape nature-society relations. A Policy Critique examining the issue of Global Climate Change is offered in the seminar as an example of how to evaluate the current range of political-economic explanations of nature-society relations.

ENEP 820 International Perspectives on Energy and Environment

***Note:** *This is a doctoral course* – MEEP students should only consider this course for 2nd year of full-time study and if there is no intention to seek admission to the ENEP Ph.D. program. The course examines government activity in the environmental and energy realms and the factors influencing policy formulation, application and effectiveness. We are free to analyze what government(s) has/have done, or not done, within the realm of the natural environment.

Among the objectives of the course are to:

- Present a political, economic and policy analysis of energy & environmental policy issues with emphasis on the international realm;
- Introduce a global energy scenario and explores its limitation;
- Review energy vulnerabilities faced by the South and examine issues associated with technology transfer from North to South;
- Examine global energy security and cooperation and explore global solar economy as an alternative to fossil fuel economy;
- Examine the rise, development and prospects for global and international environmental governance;
- Review energy and environmental treaties, framework conventions, protocols, and other forms of agreements arising from international negotiations;
- Examine specific global environmental issues, such as biodiversity protection, environmental security, global warming, globalization, stratospheric ozone depletion, urban development, and freshwater resources; and

- Consider and evaluate a range of concepts in global environmental politics, including the global commons, international economy, sustainable development, the role of scientific knowledge, scale of governance, and social movements.

ENEP 821 Pro-Seminar: Technology, Environment and Society

***Note:** *This is a doctoral course* – MEEP students should only consider this course for 2nd year of full-time study and if there is no intention to seek admission to the ENEP Ph.D. program. The seminar introduces students to important theoretical perspectives that populate the energy, environmental, urban and public policy spaces. It maps the interaction between technology, the environment and society, as well as a range of critiques, to furnish the vocabulary for Ph.D. students to creatively imagine alternatives to our many urgent energy, environmental, urban and public policy challenges.

The seminar commences with a discussion of two distinctive ideas, viz. progress and technology that have significantly shaped the modern world. In Part II, the seminar examines prominent theories of political economy that furnish explanations for the industrial, as well as what some have offered is a post-industrial, transformation. The seminar then proceeds to consider the modern transformation of Asia, Africa and Latin America and its reception among numerous and diverse peoples and societies of these regions. In Part III, the seminar introduces students to critiques of the modern transformation including "post-modernism" and those that spring from the experience of Asia, Africa and Latin America. In Part IV, the seminar discusses the environmental critiques offered with regard to the modern transformation. In this context not only are the environmental implications of development examined, but also several critiques of modern efforts to redress its environmental consequences are considered.

In its conclusion, the seminar focuses on new frontiers that are being encroached by the modern transformation and the conflicts that they engender.

ENEP 824 Sustainable Energy Policy and Planning

Sustainable energy paths are characterized by high levels of energy efficiency, extensive use of distributed energy resources and energy storage, reliance on natural gas as a transitional fuel, increasing dependence on hydrogen as an energy carrier, and a gradual shift to renewable energy sources. This course enables students to analyze sustainable energy strategies in terms of their economics, impacts on the environment (especially on climate change) and governance attributes. The course will also analyze policy options to facilitate a sustainable energy future.

*ENEP 866 Special Problem**

The course is an in-depth independent study between a student and professor to provide students with the opportunity to investigate an energy or environmental policy area of their choice.

*ENEP 868 Research**

The research course is an in-depth independent study between a student and professor to provide students with the opportunity to investigate an energy or environmental policy area of their choice. Through guided interaction with their professor, students will investigate this topic and write a research paper. Weekly or bi-weekly meetings must be scheduled with the professor in the first week of the semester in which the student enrolls in the course.

*ENEP 869 Master's Thesis**

A Master's thesis is expected to be Independent research by the student more in-depth than an Analytical Paper and also requires the submission of a paper on the chosen topic of research within Energy and Environmental Policy and defense of the thesis in front of a committee of 3 faculty members.

*ENEP 870 Readings**

The readings course is an in-depth independent study between a student and professor to provide students with the opportunity to investigate an energy or environmental policy area of their choice. Through guided interaction with their professor, students will read an extensive body of literature on their topic, discuss these works with their professor and write a draft and final bibliographic essay. Weekly or bi-weekly meetings must be scheduled with the professor in the first week of the semester in which the student enrolls in the course.

*ENEP 872 Analytical Paper**

This is Independent research for 3 credit hours, a student must demonstrate the ability to analyze particular Energy and Environmental policy or problem and develop an appropriate response. The submission of a paper on the chosen topic of research is required at the end of the semester. The student will also have to defend his/her Analytical Paper in front of their committee of two Faculty members.

***Note:** Students are required to complete a Tutorial Course Registration form and submit it to ENEP the Program Coordinator. Only the Program Coordinator can register a student for this course.

TIMEFRAME FOR DEFENSE OF THE THESIS OR ANALYTICAL PAPER

An Illustrative timeframe for the Master's Thesis (ENEP 869) defense (6 credits)

- End of month 1 of the 3rd semester: Each MEEP student shall submit a 2-3 page outline of their intended Thesis research and seek the support of the Chair of the 2-person Thesis Committee.
- End of month 2 of the 3rd semester: Each MEEP student shall identify with the approval of the Committee Chair a Reader. Each student will also submit a 12-15-page detailed outline identifying the sections of the proposed Thesis with a 3-5 page accompanying list of publications which will be consulted.
- End of month 3 of the 3rd semester: The Thesis committee will meet with the student to review and comment on the outline.
- End of month 4 of the 3rd semester: The Chair calls a Committee Meeting to review, comment, and, if appropriate, approves the thesis proposal.
- Beginning of month 1 of the 4th semester: Each MEEP student shall submit a first draft of Thesis to the chair, within 3 weeks of the receipt of the first draft, the Chair will provide recommendations to the student for revision of the Thesis. Estimated length: 60-70 pages.
- Beginning of month 2 of the 4th semester: A second draft of the Thesis will be submitted to the Chair for review and comment. The student will receive comments within 1 week and complete suggested revisions by the end of the month 2. Expected length: 80-100 pages.
- Beginning of month 3: The Chair and the student will meet to identify a defense date suitable to them and the Reader. The Thesis is put on display in the ENEP Lobby 5 days before the defense date.

An Illustrative timeframe for the Analytical Paper (ENEP 872) defense (3 credits)

- End of month 1 of the 3rd semester: Each MEEP student shall submit a 2-3 page outline of their intended A/P research and seek the support of the Chair of the 2-person A/P Committee.
- End of month 2 of the 3rd semester: Each MEEP student shall identify with the approval of the Committee Chair a Reader. Each student will also submit a 5-page detailed outline identifying the sections of the proposed A/P with a 2-3 page accompanying list of publications which will be consulted.
- End of month 3 of the 3rd semester: The A/P committee will meet with the student to review and comment on the outline.

- End of month 1 of the 4th semester: Each MEEP student shall submit a first draft of A/P to the chair, within 3 weeks of the receipt of the first draft, the Chair will provide recommendations to the student for revision of the A/P. Estimated length: 30-35 pages.
- Middle of month 3 of the 4th semester: A second draft of the AP will be submitted to the Chair for review and comment. The student will receive comments within 1 week and complete suggested revisions by the end of the month 3. Expected length: 40-60 pages.
- Month 4: The Chair and the student will meet to identify a defense date suitable to them and the Reader. The A/P is put on display in the ENEP Lobby 5 days before the defense date.

Thesis Manual

A thesis and dissertation manual is prepared and edited by the Office of Graduate and Professional Education. The requirements published therein are effective for all students submitting theses, dissertations, and executive position papers. All graduate students and their advisors are responsible for understanding and following these standards. The manual can be found at <https://www1.udel.edu/gradoffice/forms/thesismanual.pdf>.

Graduation

A “Step by Step Graduation Guide” from the Graduate Office is available at <http://grad.udel.edu/policies/step-by-step-guide-to-graduation/>.

All graduate students must file an Application for Advanced Degree in order for the degree to be awarded. The deadline for application for advance degrees is available at link above.

Preparing for Your Internship

Internships are an important part of your time here in ENEP. In the summer, you have the opportunity to apply for internships at institutions and organizations outside of ENEP to enrich your professional experience and to gain an understanding of your potential future employment. We recommend that you discuss your ambitions and plans for internships with ENEP’s director and your advisor – they have advised many students and, maybe more importantly, they have a network of organizations and institutions they can provide you with. It is considerably easier to get into an internship if ENEP’s director or your advisor can recommend you. While you are free to apply for the internship of your choice, it is oftentimes better to wait until you have met with your advisor as they can write a recommendation letter or help you in other ways. It is important to recognize that some internships are unpaid positions.

RESEARCH IN ENEP

Each year, ENEP operates a multi-project research agenda of collaborative projects among faculty and students. Research in ENEP creates opportunities for students to learn more about the academic research process, for thesis and dissertation development, and enables students to engage in community and professional relationships. Research projects are a valuable component of an education here at ENEP since they provide a means to apply learned theories and skills in a practical and professional setting. We will to align interests with research needs.

ENEP RESEARCH ASSISTANTSHIP POLICY STATEMENT

ENEP provides excellent opportunities for graduate students to contribute to research projects as well as gain teaching experience. ENEP research and teaching assistantships are designed to financially support graduate students and cultivate a culture of co-operative inquiry and academic rigor, enriching them as researchers and instructors.

ENEP researchers work in teams in keeping with ENEP's holistic and inter-disciplinary character. This offers student researchers at ENEP the unique experience of working closely with people from different academic fields, countries and cultures. The Faculty at ENEP plays a supervisory role giving the projects a definitive direction. The day to day decision making within the project is the responsibility of the student members under the leadership of a Student Lead, nourishing a sense of ownership among the students.

ENEP has limited funding but tries to support all of its graduate students from the second year onwards and tries to align interests with research needs. To ensure fairness in funding decisions, equality in work load distribution and quality of the research conducted, the Center abides by the following research and teaching assistantship policies.

General Student Funding Policy

In accordance with University Policy, an Energy and Environmental Policy graduate student studying with ENEP and receiving a Tuition Scholarship, University Fellowship, or ENEP Research or Teaching Assistantship may not earn income from a second source. Funded students must contribute 20 hours per week to their assignments and the quality of their contribution should meet the high standards of scholarship and analysis expected from professional researchers in the field.

STUDENT LIFE

Energy and Environmental Policy Student Association (EPPSA)

The Energy and Environmental Policy Student Association (EPPSA) is the main contact-point outside of your own advisor and the overall faculty of ENEP. The EPPSA board consists of seven students, both master and PhD students. EPPSA organizes both academic events for academic enrichments and social events. In the past, we have organized a wide variety of different kinds of events such as conferences, workshops, camping trips, and much more. This year, we have a range of activities planned that we hope you will all enjoy.

To stay up to date on the EPPSA activities, check out the group's website:

<https://sites.udel.edu/eepssa/about-eepssa/>

Make sure to sign up for the EPPSA-listserv, which provides you with a regular update on any news, new activities, or interesting events at UD. Finally, to further smoothen your transition into the ENEP and EPPSA community, we're starting a mentor program. Each one of you will be assigned a second, third, or fourth-year student as your mentor. Your mentor will help your introduction into the wider group of students and can answer all academic questions you might have. While your advisor is usually the first person to go to for such questions, we recognize that our faculty is already very busy and, as such, might not always have time on a short-term. To help you with questions of an academic nature – such as which courses to take – and to lighten the load on our faculty, your mentor is the right person to approach.

The EPPSA board and the wider ENEP community looks forward to having you as part of ENEP and EPPSA!

President	Christopher Oster
Vice President/Senator Proxy	Apratim Mishra
Academic Chair	Fan Yang
Career Chair	Mayank Saraswat
Social Chair	Sang Hun Lee
GSG Senator	Mayank Saraswat

Campus Services

The University of Delaware provides students with assistance in classes, personal development, and finding a job after graduation.

Office of Academic Enrichment

The Office of Academic Enrichment provides students with the skills needed to succeed in classes, including tutoring and study skills, much of which is free of charge.

Office of Academic Enrichment
148-150 S. College Ave
(302) 831-4555
UD-aec@udel.edu
<http://ae.udel.edu/>

University Writing Center

The University Writing Center helps students to improve their writing skills through one-on-one and small group tutorials. Writing tutors will review written assignments to strengthen organization, documentation and grammar.

University Writing Center
016 Memorial Hall
(302) 831-1168
writing-center@udel.edu
<https://www.writingcenter.udel.edu/>

Career Services Center

Career Services Center provides career advice and help finding employment for UD students and alumni.

Career Services Center
401 Academy Street
(302) 831-2392
udcareers@udel.edu
<http://www.udel.edu/students/career-services-center/>

Office for International Students and Scholars (OISS)

For international students, the OISS is a very important service. The OISS has a separate orientation in which they will inform you of all the services they provide. Here, we provide you with their contact information for your convenience:

Office for International Students and Scholars
44 Kent Way
(302)831-2115
oiss@udel.edu

<http://www1.udel.edu/oiss/>

UD Electronic Communications & Administration

As a student at UD you will need to access forms and view information over the internet, so the links below represent the most important places to find the information you are seeking.

ENEP's homepage	http://ENEP.udel.edu/
UDSIS	http://www.udel.edu/udsis-student
Webviews (paystubs, etc.)	http://www.udel.edu/webviews
People search	http://www.udel.edu/peoplesearch/
UD Maps	http://www.udel.edu/maps/
Sakai	http://www.udel.edu/sakai
Courses Search	https://primus.nss.udel.edu/CoursesSearch/
UD Classifieds	www.udel.edu/classifieds

USEFUL INFORMATION

Where to Go on Campus

Here is the UD map: <http://primus.nss.udel.edu/buildings/main.action>

UD Library

Recently renovated in the summer of 2014, the Morris Library is an unparalleled resource for research and study – both in the stack and on the web: www.lib.udel.edu. As a graduate student, you can reserve a carrel in the library to store books and study in a quiet environment. You can also reserve private research/study meeting rooms for project meetings.

Online, you will find access to many databases (JSTOR, RefWorks, Academic OneSource, Lexis Nexis, etc.) and hundreds of journals, to which you have subscription access as a UD student.

Aside from books, the basement of the Morris library offers access to a wide range of resources and services. The Student Multimedia Design Center is stocked with many computers, both PC and Mac, as well as free rental of high-tech audio, video and photographic equipment. They even offer professional quality video and audio recording studios. In addition to basic self-service scanning, printing and copying services, they also offer large-format poster printing.

The adjacent Film and Video Collection houses over 14,000 DVD/Blu-ray discs of movies, TV shows, etc. If you can't find what you're looking for, the Inter-Library Loan department located on the first floor can get almost any book or film from an affiliated library.

Beginning the 2014-15 academic year, the library will be home to an all new graduate student lounge located on the north side or the first floor.

Student Centers

Perkins Student Center (on Academy Street, just past the construction to the south of Graham Hall) Perkins contains a food court (nice mix of fresh and made-to-order food), Dunkin Donuts, study space, and a copy center. Downstairs is the Hen Zone (arcade) and Baccus Theater, a location for any number of student plays, concerts, and other activities. There is an Amazon Locker on the first floor where you can receive secure shipments from the online retailer.

Trabant Student Center (on the corner of South College and Main Street) Trabant contains another (though much busier and louder than Perkins) food court, a PNC bank, multi-purpose rooms (job fairs, lectures, campus events, etc.), a copy center, and a travel agency. Downstairs is a movie theater.

UD Fitness Centers Various locations (<http://www.udel.edu/fitness/>)

All full-time students have free gym membership, which includes an Olympic sized pool, cardiovascular exercise equipment, weights, aerobics classes, basketball courts and racquetball courts. Volleyball and Badminton nets are available at no charge upon request. Just bring your student ID (it acts as your membership card).

UD Parking

The campus has undergone extensive change during the last several years, thus you should make sure you know the parking rules if you chose to drive to campus. UD Parking home: <http://www.udel.edu/transportation/parking/index.html>

The best way to figure out what sort of pass you need is to follow the technocratic money categorization. <http://www.udel.edu/transportation/parking/permit-prices.html> and remember to take the UD Shuttle (by seeing its location online real-time: <http://www.udel.edu/udshuttle/>)

Parking Services

325 Academy Street
147 Perkins Student Center
(302)-831-1184
parking@udel.edu

Health Care on Campus

In the event of an emergency call 911. If you wish to drive to the closest hospital, then visit Christiana (www.christianacare.org/) or Union Hospital in Elkton Maryland (www.uhcc.com/).

For general primary doctor care, students can visit the Student Health Services (SHS), which is located in Laurel Hall (on the main campus south green area at the intersection of South College Avenue and East Park Place). Information on their services is located here: <http://www.udel.edu/studenthealth/index.html>

For student insurance, the plans that are made available are introduced here:

<http://www.udel.edu/studenthealth/insurance/index.html>

<http://www.udel.edu/RM/student-insurance.html>

Where to buy your books

UD bookstore at Barnes & Noble

Barnes & Noble UD Bookstore

83 East Main Street

Newark, DE 19717

Website: <http://udel.bncollege.com/>

On main street:

Lieberman's Bookstore – (www.lubonline.com),

Used Books Only:

Bookateria –70 E Cleveland Ave. (302) 737-4933

Manor Books –1005 N. Dupont Hwy., New Castle, DE (302) 322-5584

May find books, as well as jobs, housing, and other items on UDel Classifieds:

www.udel.edu/classifieds

How to reserve a room at UD

One option is to submit a room request form with the Registrars Office:

<http://www.udel.edu/registrar/forms/specev.html>.

There is a second option, but it requires collaborating with a Graduate Student Organization (GSO) such as EEPsA or a Registered Student Organization (RSO) such as Students For the Environment (S4E), which have room reservation privileges in the Perkins and Trabant Student Centers. [NOTE: The designation of an RSO is restricted to undergraduate student associations.]

Where to go in Newark

Parks:

- White Clay Creek State Park (closest to campus) - 425 Wedgewood Rd (www.destateparks.com/wccsp/). Other State Parks, see www.destateparks.com/
- Fair Hill Natural Resource Management Area (<http://www.dnr.state.md.us/publiclands/central/fairhill.asp>) - good hiking and mountain biking trails, about 5 minutes from campus
- Longwood Gardens (www.longwoodgardens.com) - for beautiful planned and wild gardens, forests, fountains, conservatories, and DuPont opulence

Where to go outside of Newark

- Wilmington- 13 miles (<http://www.ci.wilmington.de.us/>)

- Philadelphia- 45 miles (www.gophila.com)(www.uwishunu.com)
- Baltimore- 60 miles (www.baltimore.org)
- Rehoboth Beach, DE- 90 miles (www.beach-fun.com www.rehoboth.com)
- Washington DC- 95 miles (www.washington.org)
- New York- 130 miles (www.nycvisit.com)

How to get around

Newark has a very walkable and bike able downtown. For greater distances, you may want to use a car or take public transportation.

Newark

UD Shuttle Bus Service, around campus for free - (www.udel.edu/bus), see also the real-time tracker: <http://www.udel.edu/udshuttle/>

Newark UNICITY bus system – (<http://www.udel.edu/SuppSrv/bus/Unicity.html>) (Newark service)

Delaware Area Rapid Transit (DART) - (www.dartfirststate.com)

Zipcar at the University of Delaware

Fast. Convenient. Affordable. Environmentally friendly.

With Zipcar on campus, it just got easier to live without owning a car.

(<http://www.udel.edu/transportation/zipcar.html>)

Delaware

DART buses – offers statewide service

Southeastern Pennsylvania Transportation Authority (SEPTA) trains –

The R2 line runs through Newark to Wilmington and Philadelphia

Philadelphia and beyond- SEPTA, Amtrak, private bus companies

www.septa.org www.megabus.com

www.amtrak.com www.boltbus.com

Megabus: Baltimore, New York, Philly, DC, Richmond (VA), Hampton (VA)

MARC Train Perryville, MD to Baltimore and Washington DC –

http://www.perryvillemd.org/train_station.html

APPENDICES: FORMS

MEEP Tutorial Course Registration Form

ENEP 666

ENEP 866

ENEP 868

ENEP 870

Semester of Tutorial:

Credit Hours:

Student Name:

Student ID:

Instructor Name: _____

Instructor Signature: _____

Summary of the Course Description

Basis for Grading:

Detailed Plan of Study Form

MEEP-ENEP Plan of Study

Name (Last, First, M.I.)	Entry Term
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DEGREE REQUIREMENTS

1. Core Policy Courses

Two required 3 credit courses			
Course Number and Title	Credits	Semester/Year	Grade
ENEP 625 Energy Policy and Administration (Fall)	3		
ENEP 810 Political Economy of the Environment (Fall)	3		

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)
- ECON 801 Microeconomics (Fall)
- ECON 802 Macroeconomics (Fall)
- ECON 803 Applied Econometrics I (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) – Not offered in 2015 Fall
- MAST 663 Decision Tools for Policy Analysis (Fall)
- MAST 672 Benefit-Cost Analysis (Fall)
- MAST 681 Remote Sensing of the Environment (Fall) - Not offered in 2015Fall
- POSC 815 Introduction to Statistical Analysis for Political Science (Fall)
- POSC 816 Philosophy of Science and Research Design (Fall)
- SOCI 605 Data Collection and Analysis (Fall)
- SOCI 606 Qualitative Methodology (Spring)
- STAT 608 Statistical Research Methods (Fall & Spring)
- UAPP 691 Quantitative Analysis in the Public and Non-profit Sectors (Fall)
- UAPP 808 Qualitative Research Methods for Program Evaluation (Spring)

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

Course Number and Title	Credits	Semester/Year	Grade
	3		
	3		

3. Social Science Requirement

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 626 Climate Change: Science, Policy and Political Economy (Spring)
- ENEP 661 Sustainable Energy Finance (Spring)
- ENEP 802 Electricity Policy and Planning (Fall)
- ENEP 820* International Perspectives on Energy and Environmental Policy (Spring)
- ENEP 821* Technology, Environment, and Society (TES) (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: Environmental Policy (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: Environmental Policy (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)
- DISA 866 Special Problem: Disaster Science and Management (Fall & Spring)
- DISA666 Special Problem: Disaster Science and Management (Fall & Spring)
- ECON 862 Topics in Industrial Organization and Regulation (Fall) Not offered in Fall 2015
- ENWC 613 Wildlife Policy and Administration (Fall)
- GEOG 622 Resources, Development and the Environment (Spring)
- MAST 660 International and National Ocean Policies (Fall)
- MAST 675 Economics of Natural Resources (Fall)
- MAST 676 Environmental Economics (Spring)
- SOCI 671 Disasters, Vulnerability and Development (Fall)
- UAPP 611 Regional Watershed Management (Spring)

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

*MEEP Students considering application to the ENEP PhD should not enroll in these courses during their master's study at ENEP.

Course Number and Title	Credits	Semester/Year	Grade
	3		
	3		

4. Science, Engineering and Public Policy Requirement

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) Not offered in Spring 2016
- CIEG 632 Chemical Aspects: Environmental Engineering (Fall)
- CIEG 636 Biological Aspects: Environmental Engineering (Fall)
- CIEG 650 Urban Transportation Systems (Fall)
- CIEG 654 Urban Transportation Planning (Spring)
- CIEG 655 Civil Infrastructure Systems (Fall) Not offered in Fall 2015
- 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)
- ELEG 628 Solar Energy Technology and Applications (Spring)
- ELEG 637 Energy Systems (Fall)
- MAST 601 Introduction to Oceanography (Fall) Not offered in Fall 2015
- MAST 606 Ocean & Atmosphere Remote Sensing (Spring)
- MEEG 642 Introduction to Fuel Cells (Fall & Spring)

Note: Not all courses on the above list are offered annually. Also, please see your faculty advisor and ENEP director for more options.

Course Number and Title	Credits	Semester/Year	Grade
	3		
	3		

5. Specialization Requirements

Fifteen credit hours including Analytical Paper or Master's Thesis

Note: 1 Those selecting the Analytical Paper option must complete 12 credit hours in their area of specialization in addition to the 3 credit hours of Analytical Paper. Students selecting the Master's Thesis option must complete 9 credit hours in their area of specialization, in addition to the 6 credit hours of Master's Thesis.

Title of Specialization : _____

5. Specialization Requirements (Continued)

Course Number and Title	Credits	Semester/Year	Grade
	3		
	3		
	3		
Complete the 3 credit listing below only if you are selecting the Analytical Paper option			
	3		

6. Thesis or Analytical Paper Requirement

Each student must complete a 6-credit thesis or 3-credit analytical paper that demonstrates independent critical analysis. The analytical paper is prepared under the supervision of the student's faculty advisor, with the additional advice of one other faculty or professional reader (selected by agreement of the student and the advisor). The faculty advisor and reader conduct a defense of the analytical paper and decide the final grade. The analytical paper focuses on a specific policy issue and is based on independent research by the student.

For the Master's degree with thesis, the student prepares and defends a research thesis. In this case, the student registers for six credits of Master's Thesis. The thesis is supervised by a committee of three faculty chaired by the student's faculty advisor.

Check which applies:

_____ Thesis _____ Analytical Paper

Course Number and Title	Credits	Semester/Year	Grade
ENEP 869 Master's Thesis	6		
OR:			
ENEP 872 Analytical Paper	3		

7. MEEP Analytical Paper/Thesis Title and Committee

Title: _____

Thesis (3-member) or Analytical Paper (2-member) Committee:

Chair: _____

Member: _____

Member: _____

Approval of Advisor: _____ Date: _____