# **Energy and Environmental Policy**

**Bachelor of Science** 

Handbook 2020-2021

Energy and Environmental Policy Program 278 Graham Hall University of Delaware <u>http://enep.udel.edu</u>

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# WELCOME TO THE ENEP-BS DEGREE PROGRAM

## The Biden School of Public Policy and Administration

The Bachelors of Science of Energy and Environmental Policy at The Joseph R. Biden, Jr. School of Public Policy & Administration 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. The Joseph R. Biden, Jr. School of Public Policy and Administration Delaware prepares students with the knowledge the University of at and skills necessary to engage in research and public service activities to improve the quality of life in communities around the world. The ENEP-BS equips students for careers in energy and environmental fields through courses focused on knowledge advancement and research experiences to develop competitive skills for participation in this fast-growing field.

The ENEP-BS degree fits within this context of rigorous academic studies, praxis in the analysis and development of energy and environmental policies through coordination with partner organizations and governments, and the wider dissemination of knowledge about the need for the consideration of equitable futures in the analysis and development of energy and environmental policies.

## Choose Your Career Path

Students who graduate with an ENEP-BS degree are prepared for rewarding academic or professional careers in renewable energy, environmental protection, sustainable development, climate change policy and green jobs. Careers include energy and environmental planning, policy analysis, management and administration, and research in the public, private and non-profit sectors. Graduates of the program will be qualified to assume positions in local and national governments, international agencies, research and policy institutions, consulting firms, energy utilities, and corporate departments with responsibilities in energy and environmental matters. Energy and environmental policy is a burgeoning field with numerous career opportunities.

# **ENEP-BS DEGREE REQUIREMENTS**

In order to fulfill the requirements for graduation, students must successfully complete 125 credit hours that fulfill university, major, concentration-specific course requirements and electives, and must maintain a 2.0 grade point average (GPA).

# **Degree Concentrations**

Our choice of degree concentrations enables students to choose an approach toward energy and environmental policy that suits individual career interests.

<u>Energy, Environment and Society (EES)</u> - Students prepare for careers in local, national or international energy/environmental policy analysis and planning and sustainability research. Coursework integrates the social sciences, economics, statistical analysis, science and technology for students to develop a broad interdisciplinary understanding of the challenges and proposed solutions for major environmental and energy challenges, including climate change, the transitions to a clean energy economy, and the promotion of ecological justice.

<u>Energy, Science and Technology (EST)</u> - Students prepare for careers in sustainable energy technology development, policy analysis, and planning. Coursework bridges scientific and technological knowledge of sustainable energy with the policies that influence energy technology design, market infiltration, and consumer choice to analyze and assess sustainable and renewable energy technology options.

<u>Energy, Economics and Public Policy (EEP)</u> - Students prepare for careers in sustainable energy economics, environmental economics, and Utility regulatory analysis. Coursework emphasizes public policy and economics approaches to public and private sector sustainable energy development and environmental protection.

## **University Requirements**

The University of Delaware requires all students to complete the following 10 credit hours of courses:

<u>ENGL 110 Seminar in Composition (3 credits)</u>: Prepares students for writing college essays, including essay and thesis statement development, grammar, and scholarship.

First Year Experience: UNIV 101 (1 credit)

<u>Discovery Learning Experience</u>: *ENEP 364: Research Internship* (3 credits) fulfills the DLE requirement. (See course descriptions)

<u>Multicultural Requirement (3 credits)</u>: Introduces students to international perspectives and cultural, ethnic, and religious diversity so that students may live and work more effectively in an increasingly global society. Numerous courses are offered that meet this multicultural

requirement, some of which may also be used to fulfill breadth requirements. A list of these courses is searchable in the UD online course catalog.

## **Breadth Requirements**

All majors have Breadth Requirements in order to develop well-rounded scholars who are familiar with diverse fields and perspectives. Students in the ENEP major are required to meet the following distribution of 31 credit hours of Breadth Requirements (essentially 19 credits in addition to the University Breadth Requirements):

Group A: Creative Arts and Humanities (9 credits) Group B: History and Cultural Change (6 credits) Group C: Social and Behavioral Sciences (6 credits) Group D: Mathematics, Natural Sciences, and Technology (10 credits)

If chosen carefully, up to 3 credits from each of the University Breadth Requirement categories may be used to simultaneously satisfy the College of Arts and Sciences Breadth Requirements for this major.

Of the 31 credits, 3 credits may be used to simultaneously satisfy the University Multicultural Requirement (recommended for timely progress toward degree completion.)

Some of the qualifying breadth courses also fulfill requirements for the major, enabling students to meet two requirements with the same course. Doing so reserves credits towards the 125 required to graduate that students can fulfill with electives. When a student uses one course to fulfill two requirements, this does <u>not</u> reduce the total of 125 credits needed to graduate in the major.

Electives in the major or non-major electives are taken to assure completion of the 125 credit requirement. All courses must be passed with a minimum grade of C-.

<u>Note</u>: The 31 credit hours of Breadth Requirements specified by the ENEP Program includes the 12-credit minimum required by University Policy. ENEP majors do <u>not</u> need to take any Breadth Requirement courses beyond the 31 credits specified above.

## Major Requirements

The ENEP-BS degree requires all students in any concentration to complete a 3-credit second writing course, 15 credit hours of core curriculum courses, and 21 credit hours of Advanced/Capstone coursework.

## Minimum Mathematics Requirements (3 or 4 credits):

## \*Group D Breadth

**MATH 114** or higher is required for EEP and EES concentrations and is a prerequisite for other required courses in the concentration.

**MATH 241** or higher is required for the EST concentration and is a prerequisite for other required courses in the concentration.

<u>Second Writing Course (3 credits):</u> *Must be taken after completion of 60 credit hours.* Provides students with the opportunity to develop writing skills through guided writing exercises. This requirement will be satisfied for ENEP students by courses that are required for the ENEP major.

<u>Core Curriculum Courses (15 credits):</u> Fundamental courses offer the foundation for energy and environmental policy study. These courses include:

\*Group C Breadth \*Group D Breadth \*Group C Breadth \*Group C Breadth \*Group C Breadth

Introduction to Energy Policy
Energy Technology and Society
Introduction to Microeconomics
Changing the World: Role of Public Policy
Crafting Public Policy

<u>Advanced Courses (15 credits):</u> Advanced courses provide opportunities for students to integrate and explore and research sustainable energy and environmental issues.

ECON 343	Environmental Economics	*Group C Breadth
UAPP 325	Public Policy Analysis	

#### Choose three of the following (9 credits):

ENEP 410	Environmental Sustainability: Economic and Policy Analysis	
		*Group C Breadth
ENEP 425	Energy Policy and Administration	*Group C Breadth
ENEP 426	Climate Change Policy	*Group C Breadth
ENEP 427	Sustainable Energy: Economics and Policy	Analysis
		*Group C Breadth

Capstone (6 credits):

#### Students choose from two options totaling 6 Credits:

Option 1 ENEP 485 Senior Seminar (3 credits) ENEP 364 Internship (3 credits)

Option 2 ENEP 472 Senior Thesis (6 credits)

<u>\*Note</u>: All students are encouraged to complete an internship regardless of the capstone option chosen. ENEP 364 may be completed as an elective in the requirements for the concentration (see below).

# **Concentration-Specific Courses**

# Energy, Environment and Society (EES)

## Advanced Course Requirements (ACR) (18 credits)

ECON 300 Intermediate Microeconomic Theory

# Choose one of the following (3 or 4 credits):

MATH 201	Introduction to Statistical Methods I	*Group D Breadth
STAT 201	Basic Statistical Practice	-
MATH 221	Calculus 1	*Group D Breadth
MATH 241	Analytic Geometry and Calculus A (4 credits)	*Group D Breadth

# Choose two of the following (6 credits):

GEOG 422 Resources, Development and the Environment		
PHIL 448/UA	PP406 Environmental Ethics	*Group A Breadth
GEOG 434	Plan Sustainable Communities & Region	ons
POSC 350	Politics and the Environment	*Group C Breadth

# Choose two of the following (6 credits):

ENEP 420Water Resources ManagementENWC 201Wildlife Conservation and Ecology\*Group D BreadthGEOG 271Introduction to Geographic Data Analysis\*Group D BreadthGEOG 372Introduction to GIS\*Group D Breadth

## Advanced Course Elective (ACE) (12 credits)

Students are strongly encouraged to complete a minor or concentrate electives in a particular area of study that will complement the ENEP degree. Below is a list of approved courses for the ACE requirement. Additional courses may be approved by an advisor. Courses listed, but not used as ACR above, may be used as ACE.

# Approved Elective Courses for Energy, Environment and Society

<u>\*Note:</u> Some of the courses listed below may also fulfill a Breadth requirement.

- APEC 324 Introduction to Resource Economics
- APEC 406 Agricultural and Natural Resource Policy
- APEC 424 Resource Economics
- APEC 444 Economics of Environmental Management
- APEC 450 Topics in Environmental Law
- BISC 321 Environmental Biology
- CIEG 402 Introduction to Sustainability Principles in Civil Engineering
- ENEP 366 Independent Study (1 to 3 credits)
- ENEP 402 Electricity Policy and Planning
- ENEP 468 Research in Energy and Environment (3 to 6 credits)

<ul> <li>ENWC 325 Wildlife Management</li> <li>ENWC 413 Wildlife Policy and Administration</li> <li>ENWC 456 Conservation Biology</li> <li>GEOG 412 Physical Climatology (4 credits)</li> <li>GEOL 421 Environmental and Applied Geology</li> <li>HIST 223 Nature and History</li> <li>MATH 202 Introduction to Statistical Methods II</li> <li>POSC 300 Research Methods for Political Science</li> <li>POSC 311 Politics of Developing Nations</li> <li>POSC 316 International Political Economy</li> <li>SOCI 470 Environmental Sociology</li> <li>SOCI 471 Disasters, Vulnerability &amp; Development</li> <li>STAT 408 Statistical Research Methods</li> <li>STAT 471 Intro to STAT Analysis I</li> <li>STAT 475 Environmental Statistics</li> <li>UAPP 427 Evaluating Public Policy</li> </ul>
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# Energy, Science and Technology (EST)

#### Advanced Course Requirements (ACR) (18 credits)

CHEM 103	General Chemistry (4 credits)	*Group D Breadth
MATH 241	Analytic Geometry and Calculus A (4 credits)	*Group D Breadth
PHYS 201	Introductory Physics I (4 credits)	*Group D Breadth
CHEG 625	Green Engineering	

## Choose one of the following (3 credits):

ENEP 402 Electricity Policy and Planning

ENEP 460 Financial Analysis of Sustainable Energy

## Advanced Course Elective (ACE) (12 credits)

Students are strongly encouraged to complete a minor or concentrate electives in a particular area of study that will complement the ENEP degree. Below is a list of approved courses for the ACE requirement. Additional courses may be approved by an advisor. Courses listed, but not used as ACR above, may be used as ACE.

## Approved Elective Courses for Energy, Science and Technology

<u>\*Note:</u> Some of the courses listed below may also fulfill a Breadth requirement.

BUAD 301	Introduction to Marketing
BUAD 472	Marketing, Society and the Environment
CHEM 108	General Chemistry for Life Sciences II (4 credits)
CIEG 402	Introduction to Sustainability Principles in Civil Engineering

ECON 311	Economics of Developing Countries
ELEG 415	Electric Power and Renewable Energy Systems
ELEG 491	Ethics/Impacts of Engineering
ENEP 366	Independent Study (1 to 3 credits)
ENEP 420	Water Resources Management
ENEP 468	Research in Energy and Environment (3 to 6 credits)
ENEP 470	Readings in Energy and Environment
ENWC 413	Wildlife Policy and Administration
GEOG 271	Introduction to Geographic Data Analysis
GEOG 372	Introduction to GIS
GEOG 412	Physical Climatology (4 credits)
GEOG 422	Resources, Development and the Environment
GEOG 434	Plan Sustainable Communities & Regions
GEOL 421	Environmental and Applied Geology
MATH 242	Analytic Geometry and Calculus B (4 credits)
MEEG 435	Wind Power Engineering
MEEG 442	Introduction to Fuel Cells
POSC 350	Politics and the Environment
STAT 470	Intro to STAT Analysis I
STAT 471	Intro to STAT Analysis II
UAPP 427	Evaluating Public Policy

# Energy, Economics and Public Policy (EEP)

# Advanced Course Requirements (ACR) (18 credits)

ENEP 402 ENEP 460	Electricity Policy and Planning Financial Analysis of Sustainable Energy	
Choose <u>one</u>	of the following (3 credits):	
ECON 300 ECON 301	Intermediate Microeconomic Theory Quantitative Microeconomic Theory	*Group C Breadth *Group C Breadth
Choose <u>one</u>	of the following (3 credits):	
ECON 303	Intermediate Macroeconomic Theory *Prerequisite: ECON 103	*Group C Breadth
ECON 311	Economics of Developing Countries *Prerequisite: ECON 103	*Group C Breadth
ECON 360	Government Regulation of Business	*Group C Breadth
Choose <u>one</u>	of the following (3 credits):	
MATH 201 STAT 201	Introduction to Statistical Methods I Basic Statistical Practice	*Group D Breadth
MATH 221	Calculus 1	*Group D Breadth
MATH 241	Analytic Geometry and Calculus A (4 credits)	*Group D Breadth

# Choose <u>one</u> of the following (3 credits):

APEC 406	Agricultural and Natural Resource Policy
POSC 350	Politics and the Environment
ENWC 413	Wildlife Policy and Administration

\*Group C Breadth

#### Advanced Course Elective (ACE) (12 credits)

Students are strongly encouraged to complete a minor or concentrate electives in a particular area of study that will complement the ENEP degree. Below is a list of approved courses for the ACE requirement. Additional courses may be approved by an advisor. Courses listed, but not used as ACR above, may be used as ACE.

## Approved Elective Courses for Energy, Economics and Public Policy

<u>\*Note:</u> Some of the courses listed below may also fulfill a Breadth requirement.

BUAD 301	Introduction to Marketing
BUAD 472	Marketing, Society and the Environment
CIEG 402	Introduction to Sustainability Principles in Civil Engineering
ECON 103	Introduction to Macroeconomics
ECON 422	Econometric Methods and Models I
ECON 426	Mathematical Economic Analysis
ECON 463	The Economics of Regulation
ENEP 420	Water Resources Management
GEOG 271	Introduction to Geographic Data Analysis
GEOG 372	Introduction to GIS
GEOG 412	Physical Climatology (4 credits)
GEOG 434	Plan Sustainable Communities & Regions
GEOL 421	Environmental and Applied Geology
MATH 202	Introduction to Statistical Methods II
MATH 242	Analytic Geometry and Calculus B (4 credits)
POSC 301	State and Local Government
POSC 311	Politics of Developing Nations
POSC 316	International Political Economy
STAT 470	Intro to STAT Analysis I
STAT 471	Intro to STAT Analysis II
UAPP 325	Public Policy Analysis
UAPP 410	Politics & the Delivery of Public Policy
UAPP 419	Policy Leadership and Ethics
UAPP 427	Evaluating Public Policy

UAPP 440 Contemporary Policy Issues

# **Bachelor of Science**

## **Energy and Environmental Policy**

#### ENEP 364 Research Internship Guidelines

This Research Internship course is designed to provide students with the opportunity for experience outside of the classroom setting with an organization in the field of energy and environmental policy.

The internship fulfills the University requirement for the Discovery Learning Experience through a planned and supervised learning opportunity to fulfill the educational competencies of the student's concentration and of the major.

Students may choose to intern with a nonprofit, government or research organization in the field of energy and environmental policy or with a business that provides energy or environmental services.

In order to fulfill the Research Internship credit, students must:

- Contact their Concentration Advisor no later than the third week of September of their Junior year to begin the process of identifying an appropriate Internship. ENEP will hold an information session for Junior ENEP students during the first week of September in advance of the meetings with the Concentration Advisors.
- 2. Have their internship approved by their Advisor. This includes the submission of a one-page, typed description of the proposed internship with a clear indication of the value of the expected research or service to the preparation of the student's Senior Thesis.
- 3. Complete at least 120 hours of internship work.
- 4. Prepare an outline for and write a 12—15 page paper (double-spaced) detailing their research or service experience. The outline of the paper must be approved by the student's Advisor prior to completing the final paper.

Please note that the grade for ENEP 364 is not based on the time spent at an agency or a business during the internship. The grade is based on the outline of the ENEP 364 paper and the final paper prepared by the student. The outline of the ENEP 364 paper must be submitted to the Concentration Advisor for review and approval prior to preparing the final paper.

# ENEP 364 Internship Paper Guidelines

Your paper should include the following:

- Energy and/or environmental components of the internship that you were involved with. Be specific, utilizing data or other information from your internship (graphs or data tables may help you to present this information).
- Significance of these energy and/or environmental components within a theoretical or conceptual framework. Utilize materials from your ENEP classes to assist you in linking your internship experience with broader research concerns.

The outline of the ENEP 364 paper must be submitted to the Concentration Advisor for review and approval. Once the outline has been approved by the Concentration Advisor, the student should prepare the Internship Research Paper.

A minimum of 10 academic sources, including books and journal articles that you have read for your ENEP courses, or outside reading material, should supplement your discussion. These sources should be cited in the text and included in a reference list at the end of your paper.

Your paper should be well-organized, with an introductory paragraph that provides a "thesis statement" and explains how the paper will be organized, a body comprised of well-constructed paragraphs, and a conclusion. The body of the essay should include separate sections with section headings on: 1) your internship purpose; 2) the energy and/or environmental components of the internship that you were involved with; and 3) the significance of these energy and/or environmental components within a theoretical or conceptual framework.

Internship papers should be 12—15 pages in length, double spaced in 12pt. font. Papers are due in hard copy (printed), and should not be emailed.

# **Bachelor of Science**

# **Energy and Environmental Policy**

# Preparing ENEP Majors to Design, Conduct and Write Research Papers

The ENEP major was created from the experience of the faculty at the Center for Energy & Environmental Policy who have administered master's (MEEP) and PhD (PhD-ENEP) degrees for more than 20 years. The option to complete a 6-credit Senior Research Paper (ENEP 472) includes a defense before two Program Faculty members who must be from *different* departments. The Senior Thesis is expected to be 35-50 pages in length (double-spaced).

The Senior Thesis option grows out of two findings of the Program Faculty:

- The major prepares graduates to enter private, public and non-profit organizations seeking analytically trained individuals. The demand for individuals trained in the field is mainly to fill policy/regulatory analyst, researcher and program evaluation positions. Often, organizations are looking for individuals who have a basic or better understanding of the underlying science and engineering aspects of energy and environmental challenges and who also have training in economic and policy analysis, with an ability to advise decision makers, through objective analysis, of the appropriate courses of action.
- 2. Students accepted into the MEEP degree program over the last 20 years who defended theses in order to graduate performed noticeably better than counterparts with similar academic records but who did not have this skill at graduation. The Program Faculty view the major as preparation for graduate study for a sizable percentage of graduates and, therefore, inclusion of this thesis option improves the competitiveness of its graduates.

To prepare students for the several skills needed to succeed in the field, the Program Faculty built into the major distinct activities for students to learn how to design and conduct research and to write high-quality policy/economic/technical research papers. The defended Senior Thesis is the outgrowth of these activities. They are as follows:

 Completing ENEP courses designed to fulfill second writing requirements – all 400-level ENEP courses include writing requirements that meet the University second-writing requirement. These include:

- ENEP 410 (3 cr): Environmental Sustainability: Economic and Policy Analysis

   requires a 12-15 pp. book review. In consultation with a ENEP graduate student (who provides in- class and out-of-class training on how to prepare the book review) assigned to the course, students select a book from a published list (all are research- based), prepare an outline, submit a draft and then submit a final paper (accounting for 30% of their grade).
- ENEP 425 (3 cr): Energy Policy and Administration requires a 10-12 pp. final paper on a subject involving at least one thematic section of the course. Preparation of the paper occurs in consultation with the ENEP graduate student assigned to the course for this purpose. At least two out-of-class meetings with the graduate student are required. The final paper accounts for 25% of their grade).
- ENEP 426 (3 cr): Climate Change Policy requires two research essays of 7-8 pp. each and the completion of a spreadsheet analysis of the UD carbon footprint based on data provided to them. An in-class presentation of each student's spreadsheet reports on 4 topics – the estimated carbon content of the University's energy supply, the estimated carbon content of the University's vehicle fleet and commuters (faculty, staff and students), the carbon impact of the University's building stock and associated plug loads, and the estimated effects of specified University policy changes. Together, these activities account for 85% of the final course grade.
- ENEP 427 (3 cr): Sustainable Energy: Economics and Policy Analysis requires a 17-20 pp. research paper and a poster. Students are graded on their research proposal, their research outline, their final paper, their poster, and their in- class presentation of their poster. Together these separately graded activities comprise 50% of the final course grade.
- Completing a Readings Tutorial (ENEP 470) Some students in the major complete a 3-credit tutorial with a faculty expert for the purpose of preparing a draft of the research literature review that can be used in the Senior Thesis. Depending upon the type of research a student has selected, it is possible to select a 3-credit Research Tutorial (ENEP 468) instead of the Readings Tutorial. Both tutorials include a 10-12 pp. paper which accounts for the bulk of the final course grade. Prior permission to enroll in the tutorial is required.

With this preparation, the student then enrolls in ENEP 472, the Senior Thesis course for 6 credits, and, with their committee's advice, prepares the Senior Thesis. Students enroll for 6 credits in their senior year, typically either in the previous Summer Session or Fall Semester for students who plan to graduate in the Spring. Students normally will receive an 'S' grade until defense of the paper occurs during the Semester they are graduating.

As a widely recognized hallmark of undergraduate distinction, a Senior Thesis demonstrates to graduate schools, fellowship committees, and employers a student's intellectual achievement and sophistication as well as their initiative and self-discipline.

As the capstone of their undergraduate experience, a Senior Thesis provides students with the opportunity to draw upon what they have learned in and beyond their work for the major and to make a significant contribution of their own. Students who complete a Senior Thesis may earn either a Degree with Distinction (DwD) or—if they are pursuing an Honors Degree—they will earn an Honors Degree with Distinction (HDwD). Requirements for earning the DwD or the HDwD include the successful research, writing, and defense of the 6-credit ENEP 472, and meeting certain GPA and course requirements outlined on the URP website. The University Undergraduate Research Program has agreed to accept senior theses written for ENEP 472 in lieu of the UNIV 401-402 sequence.

Students enrolled in ENEP 472 will also have the same opportunities as students enrolled in the University's senior research thesis courses (UNIV 401 & 402) to participate in additional activities, which include the following:

- 1. \*Attending an orientation session at the beginning of each semester.
- 2. \*Presenting their work to a small group of students twice a year, once in the fall, and again in the spring. Students in ENEP 472 may also have the option of attending another group's presentations and providing those students with feedback on their work.
- 3. Attending a session demonstrating how to format a Paper (e.g., incorporating figures, tables, and graphs into a paper). Sessions are held twice in the fall and twice in the spring; students only have to attend one session.
- 4. Attending and having the option to present their work at the Senior Research Thesis Symposium, held on the first Saturday each May.
- 5. Receiving a graduation medal for their Senior Thesis. The medal signifies the student has earned a Degree with Distinction, which is an enriched degree indicating a student's success in researching, writing, and defending their work, and the meeting of specific GPA requirements.
- 6. Students who complete ENEP 472 have the option of depositing their Senior Thesis into the University's institutional repository, an online archive that makes the student's work publicly accessible. (Note: this is not mandatory. Students must opt in by granting the URP permission to deposit their work, and students retain copyright of their work.)

\*The orientation session and the presentations are scheduled for Monday afternoons from 3:35 pm – 5:30 pm. If students enrolled in ENEP 472 would like to participate in these sessions, they may want to keep their Monday afternoon class time (3:35 pm – 5:30 pm) open on their schedule.

# Preparing and Defending Your ENEP 472 Senior Thesis

# Preparing the ENEP 472 Paper

The 6-credit ENEP 472 Senior Thesis consists of the following:

- 1. Abstract typically 1 pp.
- 2. Statement of the Problem typically 1-2 pp.
- 3. Background on the Problem (including a literature review) typically -8--10 pp.
- Description of the Research Undertaken by the Student (including a description of data, methods and key concepts guiding their research) typically 10—12 pp.
- 5. Presentation of the Student's Analysis (including figures, tables, models, etc.) typically 10-18 pp.
- 6. Report of Key Findings typically 4-6 pp.
- 7. Recommendations (for example to public policy, to organization decision makers, etc.) typically 4-5 pp.
- 8. List of References typically 30 or so references are expected (4-8 pp.)

Ordinarily, an ENEP 472 paper will be prepared in draft form at least one full month before the anticipated defense date and will undergo at least one revision defined by the student's faculty advisor.

The defense version of the ENEP 472 paper must be provided to the student's advisor and the second faculty member of the student's committee. Details on who is eligible to serve on the 2-faculty member committee are given in the file referenced above.

The defense version of the ENEP 472 paper must be furnished to committee members at least five (5) business days in advance of the defense date.

## Defense of the ENEP 472 Paper

The student should prepare a 10-15 minute presentation of his or her ENEP 472 paper. It should include:

- 1. A clear and concise statement of the thesis, approved in advance of the defense by the faculty advisor (who also serves as chair of the defense).
- 2. Identification of the key concepts and methods used to analyze the thesis.
- 3. The data used in the analysis. This can include empirical data, documents analyzed, research or other literature examined, survey/interview results, or case study material prepared for the analysis of the thesis.
- 4. A statement of the key findings of the ENEP 472 paper.

PowerPoint, Prezi and SlideRocket are recommended as methods of delivering the 10-15 minute presentation, but none is required. A PowerPoint presentation should have a maximum of 12 slides.

Students should arrive at least 15 minutes in advance to set up the presentation. Students must bring their own equipment to run the presentation.

Scheduling a room for the defense of the paper is the responsibility of the student. The ENEP program coordinator can assist with scheduling.

**APPENDICES: FORMS** 

# **Course Substitution Form**

Student Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

Required Course that will be Substituted (Number and Title):

Substitute Course (Number and Title):

Justification for Substitution:

Student Signature:	Date:	
Advisor Signature:	Date:	

**Undergraduate Tutorial Course Registration Form** 

ENEP 466		
ENEP 468		
ENEP 470		
Semester of Tutorial:	Credit Hours:	
Student Name:		
Student ID:		
Instructor Name:		

Instructor Signature:
Instructor Signature:

**Summary of the Course Description** 

**Bases for Grading:** 

# Internship Registration Form (ENEP 364)

ENEP

Semester of Internship:

Credit Hours:

#### **Intern Information**

Intern's Name:

Intern's major/minor/concentrations:

Intern's telephone number: Intern's email address: Intern's UDSIS number:

## **Internship Description**

Position Title: Organization Providing Internship: Organization Mailing Address:

Name of Site Supervisor: Site Supervisor's Title:

Site Supervisor's Telephone Number:

\_\_\_\_\_

Site Supervisor's Email Address:

Site Supervisor's Signature:

Dates of Internship: \_\_\_\_\_\_ Approximate Hours of Work per Week:

Brief Description of Tasks:

Anticipated Benefit to Intern:

Concentration Advisor's Signature:	Date:

Intern's Signature:

Date:

# Senior Thesis Registration Form (ENEP472)

Student Name:			
Student ID:			
Semester of Research Paper:			
Concentration Advisor:			
Committee Members:			
Research Topic:			
Outline of Research Paper (Attach additional pages as necessary.)			
ENEP364 should be completed prior to registering for ENEP472. Please indicate Semester when ENEP364 was completed:			
Advisor Signature: Date:			

# STUDENT LIFE

# ENEP Undergraduate Council

The mission of the ENEP Undergraduate Council is to bring all ENEP undergraduates together in an out-of-the-classroom social setting. The group is meant to serve as a point of contact for all new and returning ENEP students. Topics such as course selection, course registration, and ENEP graduation requirements are discussed. Internship opportunities are also shared, as is the latest in energy and environmentally-related news. The ENEP Undergraduate Council is a young and developing group on campus open to new ideas from new members!

# Meeting with Your Advisor

For the first two years at the University of Delware, you will be advised by the University Advisors. In your Junior year, you will be assigned an academic advisor who will be an ENEP faculty member who will help guide you through your Junior and Senior years in ENEP. The frequency with which you meet your advisor depends on many issues. How busy is your advisor, what do you want to discuss, are there any important things coming up (e.g. paper deadline, conference, etc.), but we do suggest 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, advising you of internship possibilities that you are qualified for, and helping you with general advisement.

## **Registering for Classes**

You can register for courses through the University of Delaware website (<u>http://www.udel.edu/</u>). At the menu bar, select *Students*, and then *UDSIS*. After you login onto the UDSIS, you will get 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. But, importantly for this section, you can also register for the courses you're planning on taking next semester. When you select *Registration & Drop/Add*, you get to a new window that allows you to select the courses you want to take. The website shows you how many seats are still available in the course and the schedule of the course.

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 the catalog on the UD home website (<u>http://www.udel.edu/</u>). Just select *Students* from the main menu bar, then *Academic Resources*, followed by *UD catalog*.

Throughout your Junior and Senior years, we recommend that you discuss your selection of courses with your advisor. You are also encouraged to discuss your course selection with fellow students. 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.

# 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 oneon-one and small group tutorials. Writing tutors will review written assignments to strengthen organization, documentation and grammar.

016 Memorial Hall (302) 831-1168 writing-center@udel.edu http://www.english.udel.edu/wc/

## **Career Services Center**

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

401 Academy Street (302) 831-2392 udcareers@udel.edu http://www.udel.edu/CSC/

## 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 26 E. Main Street (302) 831-2115 oiss@udel.edu http://www.udel.edu/oiss/

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## **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.

# Helpful Links

ENEP's homepage <u>https://www.bidenschool.udel.edu/bachelors-</u> programs/undergraduate-programs/b-s-energy-and-environmental-policy-enep UDSIS <u>http://www.udel.edu/udsis-student</u> \*can view grades, degree audit, enrollment, financial information

My UD: Canvas https://my.udel.edu/task/all/canvas

\*can view information regarding active classes

Webviews (paystubs, etc.)	http://www.udel.edu/webviews	
People search	http://www.udel.edu/peoplesearch/	
UD Maps	http://www.udel.edu/maps/	
Courses Search <u>https://primus.nss.udel.edu/CoursesSearch/</u> *can search for course descriptions, availability		

UD Classifieds

www.udel.edu/classifieds