WINTER 2015 NEWSLETTER

Environment Science and Policy

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Happy Holidays!

As the semester winds down, projects, papers, and exams pile up and seem overwhelming at times. Here are a few tips from the ENSP department for finals week success:

- Prepare in advance- write out all of your upcoming due dates so you are organized and prepared ahead of time.
- Get enough sleep and don't skip meals—coffee may seem like an appropriate replacement for both of these things during finals, but a caffeine overload will not end in success. When you are tired, get some rest and fuel your body with healthy foods!
- Get help—if you feel like you're struggling in understanding a concept or completing an assignment, make sure you hit up those office hours. Professors have them for a reason and if you take advantage of them, it really looks good on you and it will reflect in your grades!
- Believe in yourself—YOU CAN DO IT. Despite how you might be telling yourself that finals are a deep, dark hole that you may never return from…they aren't. You really can do this, you just have to remind yourself!
- Take time to do something fun—finals can get stressful quickly, and the best way to combat some of this stress is to break up your study sessions with something fun like dinner with friends or reading this ENSP newsletter!

The ENSP department wishes you the best of luck with your final exams and a happy holiday break!

New Sustainability and Resilience Major

The Environmental Science and Policy Program is changing the Environmental Policy major to "Sustainability and Resilience" (S&R). All students currently taking Environmental Policy can continue to do so, but first year students and sophomores might want to talk with their advisor about which major makes the most sense for them. Most juniors will be far enough along with the Policy major that it would be difficult to change at this point.

We will be making this transition based upon an assessment we did in 2014. Many of our policy graduates are moving into careers in sustainability management, urban planning, and environmental consulting in addition to more traditional policy fields in government, advocacy, and law. We felt that we could support graduates moving into these growing fields without sacrificing effectiveness in policy by creating a major that had more of a focus on systems, working with competing stakeholders, and quantitative assessment.

We will be introducing a new course, Sustainability and Resilience (ENSP 151) in the Spring of 2017 as a core junior-level requirement for the new major. ENSP 151 will introduce students to some of the key concepts in the S&R field, while allowing them to do hands-on work building sustainability at Drake.

Goals of the Sustainability and Resilience Major

1) Broaden the focus of the major from the American political process to the fuller spectrum of organizations and institutions working on sustainability.
2) Align the major more directly with the professional goals of graduates.
3) Highlight systems thinking, stakeholder engagement, and cooperative solutions to stresses that threaten the sustainability of ecosystems, communities, and institutions.
4) Better communicate to prospective students the broad spectrum of preparation the major provides.

Outcomes of the Sustainability and Resilience Major

All graduates of the ENSP program will meet the following learning outcomes:

- Students will be able to critically integrate and apply evidence from multiple realms and academic disciplines.
- Students will be able to design and implement original research or analysis. They will be able to assess their results, using them to make informed decisions and recommendations.
- Students will develop an area of specialization within the ENSP program that allows them to realize their professional and personal ambitions.

In addition, there are four major-specific outcomes:

1. **Choice Analysis.** Students will be able to identify, analyze, and communicate the impacts of collective and individual choices on environmental, economic, and social systems.
2. **Systems Thinking.** Students will employ whole-systems thinking to understand the nature of sustainability and resilience challenges and to design successful responses.
3. **Stakeholder Engagement.** Students will develop appropriate skills for communicating among various constituencies that have a stake in sustainability and resilience choices, and be able to integrate concerns from multiple perspectives into proposed solutions that are appropriate to local political, social, and economic conditions.
4. **Professional Skills.** Students will develop the skills necessary for employment or graduate study in fields related to Sustainability and Resilience.

More info coming soon!



Professor Spotlight: Amahia Mallea

Associate Professor of History, Amahia Mallea, shares an interesting perspective on the connection between history and environmental science. Additionally, she discusses classes she teaches that may be of interest to ENSP students:

What happened here? Look around. As you take in the scene, think of the forces that have shaped your landscape over time. Were they physical forces, like bulldozers, floods or uplift? Policies, like zoning, agricultural subsidies or the rectangular land survey? Ideas, like religion, progressivism or colonialism? Social forces, like gendered spheres? Inadvertent forces, like invasive species? Technology, like the internal combustion engine or firestick? How did it get this way?

In my classes, whether it is environmental history or urban environmental history, we learn to read landscapes. Like the pages of a book, land provides evidence, layer upon layer, of natural and human history. Patterns of geology, climate, ecology, agriculture, industrialization, urbanization and transportation are all visible at once.

History is *change over time*. Environmental history is one of the broadest and most dynamic fields of study. We are interdisciplinary and, by adding the lens of environment, we provide new interpretations of the past. Studying the intertwining historical forces that made our landscapes can help us recognize the malleability of the scene you've just surveyed. Our world was made by interactions and choices, which means the past is a tool in a shape-able future. Understanding landscapes as historical artifacts is essential to the practice of conservation, ecology and citizenship.

Students undertake research to tell the history of their family, community, city, and landscape and to propose practical, historically informed solutions to urban challenges. I teach other courses of interest to ENSP students, even if they are not part of the ENSP curriculum—public health, Native America, and Midwestern history.

Visit my office and take a look at the art. You will find manhole covers, high-fiving raccoons, New Orleans flushed out the bowels, and an aerial landscape of the Pacific Northwest. Some of these pieces are mine, others were purchased, and a former student painted one. Collectively, the art illustrates aspects of environmental history: how society adapts to nature (urban infrastructure that mimics natural cycles), how nature adapts to society (wildlife thriving in cities), and how society apportions risk (environmental injustice).

Student Research Spotlight: Leah Robison

Leah Robison is a senior Environmental Science Major, on the Hydrology and Geology track. As a Drake Student, Leah's main goal was to become involved with research through the ENSP program. She has spent the past two summers engaging in Dr. Summerville's field research throughout Chicaqua Bottoms Greenbelt. Part of this research focused on an ongoing project that involved tracking a relocated population of Ornate Box Turtles using radio telemetry. This year Leah is continuing this research and investigating the specific habitat needs of Ornate Box Turtles. More specifically, she wants to use technology as a method for solving ecological problems. She was able to participate in this research project as part of an independent study course this semester. To support this research, Leah received a scholarship as part of the NASA Iowa Space Grant Consortium. With the help of Dr. Rosburg, she came up with a plan for habitat assessment of two different prairie sites near Iowa City and the prairie at Chichaqua Bottoms Greenbelt.

The prairies outside of Iowa City have sustaining and growing populations of Ornate Box Turtles and are a good example of the habitat specifications for the turtles. For this project, she collected data from the three prairie sites, and she is investigating attributes such as soil moisture and texture, ground cover, above ground biomass, and plant density in order to compare the differences among the sites. Ornate Box Turtles are a threatened species in Iowa, so completing research on the species' habitat requirements is important for creating and managing prairie conservation lands that can serve as a suitable habitat. Leah will be graduating in the spring and hopes to use the many skills she has learned through her research experience at Drake in a future career related to research related to environmental and ecological issues.