SPEA E183 – ENVIRONMENT AND PEOPLE

FALL 2018

CLASS TIME: Monday and Wednesday, 2:30 – 3:45 p.m.
CLASS LOCATION: SPEA PV 274

INSTRUCTOR: Dr. Kim Novick
OFFICE: MSB2 Room 316
EMAIL: knovick@indiana.edu
OFFICE HOURS: Monday, 4:00 – 5:00 p.m. or by appointment

REQUIRED RESOURCES: There are no required textbooks for this class. All of our readings will be made available in PDF form on the course CANVAS page.

COURSE DESCRIPTION: This class is one of many sections of E183 offered each semester. All E183 sections have shared learning objectives:

• Human - Environment Interactions and Impacts: Be able to explain the ways in which the action of a student/society impacts the surrounding environment, and explain ways in which the environment affects a student/society.

• Environmental Literacy and Fluency: Students will be able to summarize, explain, and analyze environmental problems they encounter in media articles and news stories. They will also be able to find more information on these environmental problems by using appropriate research methods and resources. They will be able to then summarize and interpret the information, then ask questions for gaps in information provided and gaps in their conceptual knowledge.

• Policy tools: Students should be able to recognize and explain policy tools that are in place to deal with environmental problems as well as identify the roles of organizations/government agencies that are responsible for designing and monitoring these policies.

• Environmental Solutions: Students should be able to recommend alternatives to existing environmental policies.

• Informed Arguments: Students will be able to review opposing viewpoints on environmental issues, find credible sources, and make coherent arguments using the correct scientific terminology.

Our particular section will meet these course objectives by concentrating specifically on the topic of climate change. We will focus on this important, interesting, and controversial (at least in the policy sphere) topic for a number of reasons.

• First, the science underlying climate change has been extensively studied and summarized, which will give us a strong platform from which to build a knowledge base that will inform our efforts to develop environmental literacy and fluency, and to explore policy solutions.
Second, the potential impacts of climate change on natural and human systems are profound, making climate change one of the most important environmental issues of our time.

Third, over the past 10-15 years, there has been an interesting decoupling between public and scientific opinion on the causes and consequences of climate change, which will drive our collective efforts to understand the important role of communication (by scientists, the media, interest groups, and government) in shaping solutions to environmental problems.

And finally, policy solutions have been adopted at a range of governmental scales (municipal to state to federal to global), which will enrich our discussion of the tools and organizations that are responsible for shaping and instituting environmental policies.

Throughout the course, we will pay particular attention to the concept of sustainability, as it applies to the response of both human and natural systems to climate change. At the end of our first class period, we’ll discuss the meaning of the phrase sustainability. You may find the IU Office of Sustainability’s website to be a helpful resource in the future.

The course will be divided into several distinct units:

1. The physical science basis of climate change: Topics include evidence of climate change, radiative forcing and the greenhouse effect, the global carbon cycle and feedbacks therein, and models to predict future climate states.

2. Impacts and mitigation: Topics include: impacts on human health and homes, industry and agriculture, water cycling, and ecosystems. We will discuss approaches for mitigating (i.e. slowing) climate change, adapting to climate change, and geoengineering approaches.

3. Climate change perception and communication: Topics include the decoupling between public and scientific opinion on climate change and its impacts, a discussion of how to communicate uncertainty to the public, and the role of media in shaping the debate on how to address the climate change problem.

4. Climate change Policy: Topics include global climate policy initiatives (i.e. Kyoto Protocol, Paris Accord), domestic climate policy at the federal, state, and municipal level, and concerns about equity in crafting climate change solutions

Grading: Students will meet course objectives through a range of activities and assignments, including:

Attendance & participation: 15% of course grade (will be assessed by quick pen & paper exercise conducted during each class, and turned in at the end)

Online quizzes: 25% of course grade: You will have an online quiz due every week that you don’t have another assessment due. These will generally cover class readings. They are designed to be a straightforward check that you have read the assigned material with the intent to understand it.

Assignments: 30% You will have 4 assignments due over the course of the semester. These are designed to allow you to engage more deeply with key course concepts. It’s expect that each assignment will take you a few hours (or more) to complete, so don’t wait until the last minute!
World Energy Simulation Game. 30% of course grade. Our unit on climate change policy will be oriented around an extended role playing exercise that will unfold over six class periods. The purpose of this exercise is to allow you engage actively and critically with the tough work of exploring sustainable climate change solutions for natural and human system. The World Energy & Climate Simulation is premised on a fictitious conference convened by the United Nations Secretary General to address climate change. Rather than pull representatives of nations together, the Secretary General has taken the extraordinary step of convening corporate CEOs and leaders of organizations, governmental and nongovernmental, and stakeholders responsible for climate change and also activists and others working to mitigate it. Ultimately, the goal of the conference is to develop a proposed course of action to limit climate change to a maximum warming of 2 °C by 2100. You will be assigned a specific role to play within one of six sector groups or the media. The sector groups will be responsible for proposing key climate policy instruments and drivers over several rounds of discussion and negotiation. The policy proposals will be fed into a climate change simulator to determine how close you, as a group, have come to the temperature goal. The exercise will require you to complete a number of smaller assessments and tasks, broken down as follows:

- Individual research assignment (15%)
- Participation in discussions and negotiations (15%)
- Formal group presentation (20%)
- Final summary paper (30%)
- Group position grade (i.e. did you advocate effectively for your sector, 10%)
- Class warming grade (i.e. did the class make a meaningful effort to reach the 2°C goal, 10%)

Please note that your course grade as displayed on CANVAS does not apply the appropriate weighting scheme. DO NOT TRUST WHAT CANVAS REPORTS FOR YOUR OVERALL GRADE IN THE COURSE. If you want to know that, you can apply the weighting scheme yourself, or ask me and I will tell you.

Assignment Policies: Online quizzes are due before class on Monday. Homeworks will generally be assigned two weeks before they are due, and will be turned in digitally via Canvas. Homework assignments should be well presented, and in almost all cases, answers should be typed into the template provided.

A 10% deduction will apply to homework assignments and online quizzes turned in late within 48 hours of the due date; a 30% deduction will apply to homework assignments turned in more than 48 hours after the due date. Extensions may be granted in the case of illness, emergencies, and religious observations; extensions should be requested at least 24 hours in advance.

You will be given specific prompts describing the expectations and grading policies of the Simulation Game activities, including the presentations and final reports.

Attendance and Classroom Policies: Classroom attendance is mandatory. The final grade will be lowered by one point for each absence the student accumulates after the third (up to a full letter grade), except under very special circumstances. Exceptions will only be given for illness, emergencies, and religious observations, and those exceptions should be requested in advance. If more than one consecutive class is missed for illness, a doctor’s note will be required.

Occasionally, you will be asked to bring a laptop to class. If you don’t have a laptop or other computer-like device you can use, please let me know. Please refrain from bringing food to class. Drinks are okay.
# Course Schedule (Subject to Change)

<table>
<thead>
<tr>
<th>Mon</th>
<th>Topic, What’s due</th>
<th>Wed</th>
<th>Topic, What’s Due</th>
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<tbody>
<tr>
<td>20-Aug</td>
<td>Syllabus overview</td>
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<td>22-Aug</td>
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<tr>
<td>3-Sep</td>
<td>NO CLASS – Labor Day</td>
<td>5-Sep</td>
<td>Global carbon cycle <em>(Due - Quiz 2: Dessler reading)</em></td>
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<td>10-Sep</td>
<td>Global Carbon Cycle <em>(Due - Assignment 1: Greenhouse effect)</em></td>
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<td>12-Sep</td>
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<td>17-Sep</td>
<td>Emissions <em>(Due - Quiz 3: EPA reading)</em></td>
<td>19-Sep</td>
<td>Feedbacks</td>
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<td>24-Sep</td>
<td>Prediction <em>(Due - Assignment 2 - MMSF Carbon cycle)</em></td>
<td>26-Sep</td>
<td>Impacts</td>
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<td>1-Oct</td>
<td>Impacts <em>(Due - Quiz 4: Indiana Impacts Assessment)</em></td>
<td>3-Oct</td>
<td>Mitigation</td>
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<td>8-Oct</td>
<td>Mitigation <em>(Due - Assignment 3 - Carbon Footprint)</em></td>
<td>10-Oct</td>
<td>Communication</td>
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<td>15-Oct</td>
<td>Communication <em>(Due - Quiz 5: Yale reports)</em></td>
<td>17-Oct</td>
<td>Adaptation</td>
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<td>22-Oct</td>
<td>Adaptation <em>(Due: Quiz 6 - Reading TBD)</em></td>
<td>24-Oct</td>
<td>NO CLASS</td>
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<td>29-Oct</td>
<td>Emissions Simulation Overview <em>(Due: Assignment 4 - Climate Change Story)</em></td>
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<td>31-Oct</td>
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<td>5-Nov</td>
<td>Simulation Round 1 <em>(Due - Individual Simulation Preparation)</em></td>
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<td>7-Nov</td>
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<td>12-Nov</td>
<td>Simulation presentations <em>(Due - Group Presentations)</em></td>
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<td>19-Nov</td>
<td>THANKSGIVING</td>
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<td>26-Nov</td>
<td>Simulation Round 2 <em>(Due - Quiz 7: Simulation game prompts)</em></td>
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<td>28-Nov</td>
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<td>3-Dec</td>
<td>Policy <em>(Due - Quiz 8: Reading TBD)</em></td>
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<td>5-Dec</td>
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Final paper due December 14th!
OTHER THINGS TO KNOW:

BIAS REPORTING: As your instructor, one of my responsibilities is to create a positive learning environment for all students. Bias incidents (events or comments that target an individual or group based on age, color, religion, disability, race, ethnicity, national origin, sex, gender, gender identity, sexual orientation, marital status or veteran status) are not appropriate in our classroom or on campus. What should you do if you witness or experience a bias incident? See it? Hear it? Report it by submitting a report online (biasincident.indiana.edu) or calling the Dean of Students Office (812-855-8187).”

DISABILITY SERVICES FOR STUDENTS: Every attempt will be made to accommodate qualified students with disabilities (e.g. mental health, learning, chronic health, physical, hearing, vision neurological, etc.) You must have established your eligibility for support services through the appropriate office that services students with disabilities. Note that services are confidential, may take time to put into place and are not retroactive; Captions and alternate media for print materials may take three or more weeks to get produced. Please contact Disability Services for Students at http://disabilityservices.indiana.edu or 812-855-7578 as soon as possible if accommodations are needed. The office is located on the third floor, west tower, of the Wells Library, Room W302. Walk-ins are welcome 8 AM to 5 PM, Monday through Friday. You can also locate a variety of campus resources for students and visitors that need assistance at: http://www.iu.edu/~ada/index.shtml

SEXUAL MISCONDUCT AND TITLE IX: As your instructor, one of my responsibilities is to create a positive learning environment for all students. Title IX and IU’s Sexual Misconduct Policy prohibit sexual misconduct in any form, including sexual harassment, sexual assault, stalking, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with:

The Sexual Assault Crisis Services (SACS) at (812) 855-8900 (counseling services)
Confidential Victim Advocates (CVA) at (812) 856-2469 (advocacy and advice services)
IU Health Center at (812) 855-4011 (health and medical services)

It is also important that you know that Title IX and University policy require me to share any information brought to my attention about potential sexual misconduct, with the campus Deputy Title IX Coordinator or IU’s Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken and resources are made available. Protecting student privacy is of utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist. I encourage you to visit stopsexualviolence.iu.edu to learn more.