Translating Environmental Health Science into Policy
EHSC-GA 1013
Spring 2013

Instructor: Kevin Cromar, Ph.D.
Affiliation: Assistant Professor of Environmental Medicine
             NYU School of Medicine

Office Phone: (845) 731-3554
Email: kevin.cromar@nyu.edu

Time: Tuesdays and Thursdays, 8:00-9:15 AM
Location: GCASL (238 Thompsen Street) Room 379

I. Course Description and Rationale:
The creation and implementation of efficient policies should be one of the primary outcomes of environmental health science research. However, this is often not the case. There is a current need for scientific researchers to assume an increased role in the formation of environmental health policies at every level of government. This course will address issues in bridging this gap between science and policy. As part of this course, students will gain hands-on experience in developing and presenting interdisciplinary scientific research that can be used in informing current and future policies. A sample of the topics covered include: risk assessment, cost-benefit analysis, Clean Air Act, Clean Water Act, international climate change, and PlaNYC 2030. Guest lecturers at the forefront of the intersection of science and policy will speak on current environmental health topics. Students will also learn about future opportunities for continued involvement in informing environmental health policy.

II. Course Aims and Objectives

Aims:
1. Gain real world experience in conducting scientific analysis for an environmental health policy currently under consideration.
2. Deliver completed research results to key shareholder(s) involved in setting/implementing an environmental health policy.

Specific Learning Objectives
By the end of this course, students will:
1. Understand how science is used in the setting of environmental health policies at the local, state, and national level.
2. Learn how environmental health policies could be improved through the proper inclusion of scientific research.
3. Become skilled at developing, conducting, and disseminating relevant scientific research in support of efficient environmental health policies.
4. Find out about future opportunities to continue using scientific research in support of efficient environmental health policies.
III. Reading Assignments:
No specific textbook is required for this course. Weekly reading assignments will be provided from scientific journal articles, government reports, scientific commentary in the public press, etc.

IV. Course Structure
This course consists of two classes weekly, 1 hr 15 minutes each. An additional 35 minutes of dedicated office hour time will be provided weekly. During this time, students will have the opportunity to work individually with the instructor to develop, perform and disseminate their planned research projects.

V. Grades
Work on a research project is a major focus of this course. You may choose to work in groups or individually on one of the topics provided by the instructor. Students are also free to develop their own research topics. The grade for the research project will consist of three parts: development of a research question; presentation to the class of research methods and results; and, dissemination of research results. A written description of the research question (~250 words) including background information, proposed study design, and potential impact of anticipated results will be required. Each student will also have an opportunity to give an in-class presentation on their research project. The dissemination of research results can include: submitting public comments for environmental health policies; applying for funding for continued research; submission of an abstract to a scientific journal or academic conference; or other instructor improved methods of disseminating research results. The due dates for each of these assignments are found on the class schedule.

Questions will accompany some of the reading assignments to help students focus on and understand the main principles of the assigned readings. These questions will form the basis of class discussions and test questions. Additionally, it is expected that students will come prepared with their own questions to ask the guest speakers.

Final grades for the course will be based on the following rubric:

45% - Research Project
  Development of research question (15%)
  Class presentation of research (15%)
  Dissemination of research results (15%)

30% - Course Participation
  Reading assignment questions – (15%)
  In class quizzes – (15%)

25% - Final Exam and completed course evaluation
### VI. Tentative Course Schedule *(May change to accommodate guest speakers & student needs)*

<table>
<thead>
<tr>
<th>WEEKLY TOPICS</th>
<th>Dates of Classes</th>
</tr>
</thead>
</table>
| **Week 1**: Introduction to Environmental Health Policy | Tuesday, January 29  
Thursday, January 31 |
| **Week 2**: Cost-Benefit Analysis in Environmental Health Policy | Tuesday, February 5  
Thursday, February 7 |
| **Week 3**: Preventing Harm in the Face of Uncertainty | Tuesday, February 12  
Thursday, February 14 |
| **Week 4**: Workshops for Semester Projects | Tuesday, February 19  
Thursday, February 21  
*Due: Research Question* |
| **Week 5**: Is the Structure of the Clean Air Act Scientifically Justified? | Tuesday, February 26  
Thursday, February 28 |
| **Yale Law Conference**: New Directions in Environmental Law | Saturday, March 2  
New Haven, CT  
*(attendance is optional)* |
| **Week 6**: Scientific Considerations of Rulemaking under the Clean Air Act | Tuesday, March 5  
Thursday, March 7 |
| **Week 7**: NEPA: Where’s the Science? | Tuesday, March 12  
Thursday, March 14 |
| **Week 8**: Environmental Health Policy at the Local Level: PlaNYC 2030 and Environmental Justice | Tuesday, March 26  
Thursday, March 28 |
| **Week 9**: Beyond the Science: Understanding Climate Change Policy | Tuesday, April 2  
Thursday, April 4 |
| **Week 10**: Collaboration and Writing Workshop | Tuesday, April 9  
Thursday, April 11 |
| **Week 11**: Winter Ozone, Natural Gas Development and the EPA | Tuesday, April 16  
Thursday, April 18 |
| **Week 12**: Modern Regulation and Science: OIRA | Tuesday, April 23  
Thursday, April 25 |
| **Week 13**: Law, Economics, and Science  
**Guest Lecturer**: Michael Livermore, Director  
NYU School of Law Institute for Policy Integrity | Tuesday, April 30  
Thursday, May 2 |
| **Week 14**: Student Presentations of Semester Projects | Tuesday, May 7  
Thursday, May 9  
*Due: Student Presentations* |
| **Week 15**: Final Exam and Course Evaluations | Thursday, May 16  
*Due: Written Dissemination of Research* |