

Undergraduate Student Learning Initiative  
Division of Society and Environment  
Department of Environmental Science, Policy and Management  
College of Natural Resources

## **Goals**

The Society and Environment major develops students' capacities to theorize, analyze, interpret and influence social causes and consequences of environmental problems. Society and Environment graduates gain understanding of the complex interactions between social, technological, and natural systems—conceptually, analytically, operationally, articulately—for their individually-chosen environmental problems and solutions. They learn about social processes that

- affect environmental equity, productivity and stability for diverse peoples and generations;
- form and link institutions of science, industry, technology, resource use, and societal governance;
- work across the operational scales of environmental management and policy, from the local to global;
- shape operational responses, in policy and practice, to problems of environmental injustice, sustainability, and productivity.

Graduates are expected to play effective and credible roles in the public, professional and scientific arenas in which they choose to work. These arenas include, for example, the politics, policy and management of urban, agricultural, forest, land and water systems and the particular sets of socioeconomic, scientific, industrial and governmental institutions these engage.

## **Intersection of Goals and Curriculum**

At the lower-division level, all Society and Environment majors fulfill the L&S five course breadth requirement and take one economics course, one environmental science course and one environmental social science course. At the upper division level, the major requires a core course that exposes students to the major's conceptual, methodological, and topical content, along with one upper-division course in environmental or political economics. In addition, in consultation with a faculty advisor, students are required to take six courses chosen from among three Areas of Concentration: (1) US Environmental Policy and Management; (2) Global Environmental Politics; (3) Environmental Justice and Development. Three courses must be taken from within one Area of Concentration; the remaining three must include at least one course in the other two concentrations. All S&E courses require extensive reading, various research, action, and writing projects, and prepared oral presentations. Students may also

choose internships, honors seminars, and individual research courses to enrich their education. A capstone course for all students in the major is under consideration.

The Society and Environment major began admitting students in July 2006 and has grown to over 100 students. S&E faculty have been accumulating experience and making adjustments to improve the major's structure, performance and impact. Experience thus far indicates that the structure of six required core upper-division courses for each student provides a solid foundation. Additional course requirements have become increasingly flexible as new knowledge is gained about students' individual aspirations and suitable course possibilities available to them across the campus.

## **Communication**

All information about the major is available on ESPM and S&E websites. The current website of the S&E major *Snapshot* is appended. Course syllabi communicate course purposes, content, assignments, examinations, expectations, and modes of evaluation for each element. Faculty exchange course syllabi every year or so to provoke continuing improvement of the content and coherence of the major.

The S&E faculty are committed to effective undergraduate mentorship, and the major attracts outstanding students with interests and opportunity for engagement with faculty. Through these relationships, an exceptional quality of information is available to students about the major, its intent, expectations and full campus means to satisfy them. Students provide continuous feedback about the merits of course offerings campuswide.

The Department of ESPM provides the following ways of communicating with major and potential major students:

- ESPM Undergraduate website <http://espm.berkeley.edu/ugmajors/index.php>. This site includes information on the goals of the individual majors and career options, student planning options including areas of concentration, and major faculty advisors.
- Major Handbooks that are updated regularly and made available in hard copy or online ([http://espm.berkeley.edu/ugmajors/CRS/CRS\\_Handbook.pdf](http://espm.berkeley.edu/ugmajors/CRS/CRS_Handbook.pdf)).

Creation of a central page on the CNR website for all of the CNR majors to post their learning goals (in pdf. format for easy downloading), and corresponding.

## **Assessment**

Students are graded in each course by examinations, which focus on their analytical and topical knowledge; by written submissions that include, for example, reading responses and book reviews, op-ed articles, research reports, and policy briefs; and oral presentations of various formal and spontaneous kinds. Close faculty mentoring maintains a continuous flow of evaluation with respect to how well a student is meeting her or his aspirations and those of the major. As there are few S&E graduates thus far,

little basis yet exists for the ultimate concrete assessment, which is the influence that graduates' capacities for learning, communication and application have in the world and careers.

## **Applications in sample upper-division courses**

### **I. Core requirements for major**

#### **ESPM 151 *Society and Environment***

**Goal:** Students should master and be able to apply basic knowledge about concepts and methods that characterize the scope of the Society and Environment major. These approaches include

- Political economy
- Political ecology
- Ecological economics
- Green economics
- Discourse analysis
- Feminist and indigenous analyses of scientific method and knowledge production
- Environmental governance

#### **Assignments:**

\\* Students have weekly reading assignments and discussion sections.

- They write three short papers that apply course concepts and methods to specific issues they select in consultation with their GSIs or the professor. Each paper requires appropriate framing, empirical strategy, data collection, analysis and interpretation.
- Students write take-home midterm and final essay examinations that require framing and analysis of increasingly complex specified issues.

#### **Assessment**

Student achievement is assessed with respect to standards of excellence in assigned papers, examinations, and discussion in lectures and sections. Standards include conceptual comprehension, methodological soundness, and topical depth.

## **ESPM xxx *Capstone in Society and Environment***

A capstone course is under consideration. It would bring graduating seniors together for synthesis among areas of concentration and topical emphases, and would provide opportunity to affirm specific necessary skills in, for example, issue analysis, proposal and article preparation, critical reading of diverse forms of publication, and effective oral presentation.

## **II. Possible core courses in Areas of Concentration**

### **ESPM 102D AC *Resource and Environmental Policy***

**Goal:** To prepare students for effective professional engagement in public policy formation, implementation and analysis

- Prepare students to interpret the cultural content and consequences of environmental politics and institutions
- Develop capacities to analyze dynamics of policy formation and to formulate policy strategies for attaining desired social and material outcomes.
- Develop capacities for interpretation across the full scope of politically relevant communication and for effective uses of these various modes.

#### **Assignments:**

- Readings cover a full range of writing styles, from legal and technical to historical, analytical, prospective, editorial and literary. They are 50-150 pages per week, depending on the style. Students write weekly responses to the readings and discuss them in section.
- Students select a novel, report on its cultural framing of social environmental relations, and present its policy implications in lecture.
- Students undertake semester-long team immersions in significant environmental issues. This involves stages of problem formulation, bibliographic review, ground immersion with active parties in the issue, and oral and written presentation of policy brief on solutions to the issue.

- Students write a final examination in which they analyze a given policy problem and develop a solution strategy based on the analysis.

**Assessment:** Student papers, presentations, and participation are judged against a standard of effectiveness and credibility in public policy arenas and on rates of growth over the course duration.

### **ESPM 160AC. *American Environmental and Cultural History***

#### **Goals**

- To write articulate, well argued papers on topics in American environmental history
- To think creatively and comprehensively about the subject matter of the course.

#### **Assignments:**

- Weekly readings and discussions
- Five short papers
- Midterm and final examinations

#### **Assessment:**

- Quality of papers with respect to scholarly standards of excellence
- Improvement over the five-paper series
- Midterm and final examination grades of comprehension and insight
- Improvement in grades from midterm to final examination

### **ESPM 161 *Environmental Philosophy and Ethics***

#### **Goals**

- To write articulate, well argued papers on topics in American environmental history
- To think creatively and comprehensively about the subject matter of the course.

#### **Assignments:**

- Weekly readings and discussions
- Five short papers
- Midterm and final examinations

**Assessment:**

- Quality of papers with respect to scholarly standards of excellence
- Improvement over the five-paper series
- Midterm and final examination grades of comprehension and insight
- Improvement in grades from midterm to final examination

**ESPM 162 *Bioethics and Society*****Goals**

- Critical and theory-informed thinking about the interface of science, technology and society; the politics of genetic advances in biomedical and agricultural fields; connections between bioethics and environmental ethics; food safety regulation and policy.
- Tools to formulate ethical arguments and to reason critically;
- Writing and speaking skills to express reasoned ethical arguments
- Knowledge of human genome projects past and present, including eugenics in anglo/america, the Human Genome Project, genetic engineering in humans and non-humans; the ethics, regulation and politics of food.

**Assignments**

- Students read roughly 60 pages/week.
- All members of class are required to participate on panels that get called on to contribute orally in class
- Students participate in debates during lecture
- Weekly written assignments polish writing and reasoning skills
- Examinations test for content discussed above, and ability to synthesize material in new ways ( Students prepare a list of essays beforehand and write one out in class)

## **Assessment**

- Students are graded on weekly assignments, oral contributions in lecture and section, and exams. Standards of assessment are defined by the quality of satisfaction of the above-stated goals.

## **ESPM 167 *Environmental Health and Development***

### **Goals**

By the end of the course students will have:

- Demonstrated knowledge in major areas of environmental health and development;
- Understood basic scientific methods for assessing the impacts of environmental hazards on human health
- Understood and used scientific frameworks to interpret environmental health information and data;
- Critically assessed environmental health issues appearing in scholarly publications and the popular press;
- Practiced communicating their ideas and results in language that can be generally understood;
- Worked with classmates from other disciplines in order to realize the importance of multidisciplinary approaches for solving environmental health problems;
- Applied scientific, social and political frameworks for understanding conflicts in the realms of science, public health, environmental policy-making and regulation.

### **Assignments**

The assignments for the class to meet those goals are:

- /Policy Paper Prospectus/\*: Students submit a 3-4 page double spaced description of their proposed environmental health topic, outlining the scientific and policy issues they are planning to address and how they will approach their analysis. Students must also include a preliminary list of 6-10 references.

- /Policy Paper (Part A)/:\* The first half of the science-policy paper assignment is an exercise that involves writing a 7-10 page analysis of the scientific data and its interpretation and use by policy-makers, regulators and impacted communities to shape solutions for a current environmental health topic. At least 10-12 references should be included in the bibliography. At least 80% of the references should come from the peer-reviewed literature (as opposed to websites, newspapers or popular journals).

- Policy Paper (Part B)/:\* The second portion of the policy paper assignment involves revising Part A based on feedback from us and writing an additional 8-10 pages that makes the case for the proposed policy solution to the selected environmental health issue. This portion of the paper should briefly describe (< 1 page) the problem to be addressed (attaching relevant press coverage if available), discuss whether and how the issue has been managed under current environmental law and regulation (2 pages) and then evaluate at least two alternative management approaches, described in terms of the policy instruments we discuss in class. The exercise involves evaluating both the strengths and weaknesses of current and alternative risk management approaches, as if the audience were a legislator needing advice on how to address this issue. /Part B will culminate in the integration of the analysis of the science from Part A and the addition of Part B on policy to create one integrated science-policy brief. The final paper should be 16-20 pages in length. /

- Op-Ed/: \*This short writing assignment involves developing an op-ed that advocates a position in favor of a specific policy related to any issue in the field of environment and health that has a scientific or technical component. Writing an op-ed provides an opportunity to develop and frame arguments about technical and scientific issues in language that is appropriate to policy settings and public forums outside of academia (i.e. no jargon or acronyms allowed). An op-ed writer needs to advance a compelling argument and explain why a busy public and policy-makers should support the position. The piece needs to be concisely written--approximately 700-750 words. Students will share and critique each other's op-ed drafts in discussion section and submit op-eds for publication in a newspaper, online media or broadcast outlet of their choice.

- /Examination An exam is held in-class stressing synthesis of materials and concepts from lectures and readings.

## **Assessment**

Assessment is based on the degree of attainment, in balance appropriate for the assignment, of goals set forth above.

## **JESPM 168 *Political Ecology***

### **Goals**

- To understand multiple theoretical tools used in Political Ecology for the analysis of environmental problems, conflicts, and good management.
- To be able to analyze cases of resource conflict or cooperation using one or more theoretical tools from the Political Ecology "toolkit".
- To be able to write concisely yet comprehensively about such conflicts, good management, or problems using a political ecology approach.

### **Assessment**

Papers, examinations and discussion are assessed with respect to the extent to which the above goals are satisfied.