Environmental Science, Policy, and Criminology in Scotland and England
ANR 475: International Studies in Agriculture and Natural Resources

Summer Session, 2013 (May 29th – June 28th w/ pre-course preparation beginning in March)

Scope and Objectives of the Courses

This ANR 475 course will provide a multi-disciplinary approach to enhancing student understanding of complexity of sustainably governing and managing coupled-human and natural resource systems. The courses will expose students to impacts of globalization on environmental resources, the challenges of conserving biodiversity, fisheries, and wildlife resources in developed nations at the local, national, and international level. The program has a particular emphasis on water resources and will expose students to theoretical and applied scientific principles related to the environmental health and natural resources productivity of the U.K. and its biota.

All concepts will be presented in a historical and geographic context, which will be emphasized by hands-on learning experiences and observations of present day systems and evidence of past configurations and functions (e.g., impacts of derelict dams on fisheries resources). We will look at the evolution of environmental survey methods, management initiatives, and governance institutions and their interaction societal changes in their valuation of natural resources (e.g., intrinsic-value, market-value). Discussing the entire process of environmental management, from basic research techniques through to policy creation and legal enforcement will expose the students to the range issues involved with natural resource management.

We will apply the University’s liberal learning goals (http://undergrad.msu.edu/learning) to ensure that students grasp the necessity of finding appropriate solutions to environmental problems, such as thinking analytically about necessary environmental actions while being culturally-sensitive of the capacity of the society to perform those actions. We will promote integrated reasoning and effective communication to compare the approaches and rationale for various solutions implemented by the U.K., U.S., and Michigan to similar natural resources challenges. Students will learn how societies relying on two different and distant large water bodies (i.e., the North Sea and the Great Lakes) and inland riverine systems share similar reliance on these water-bodies, face similar environmental and biological challenges, and how effective citizenship can manifest in different policy and enforcement approaches to these challenges.

We will study the nature of scientific inquiry and examine how science has or has not been used to shape environmental policy in the UK, the E.U, and globally. It is expected that students will be required to participate in pre-trip background and lab training sessions toward the end of the spring semester 2013. This will include time learning lab procedures and introductory concepts so that they will be able to maximize their hands-on experience in U.K. and European government and university labs and at biological field stations.
**Course Readings**


Other specific readings will be assigned throughout the course and provided to the students.

**Determinants of Grades**

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<tr>
<th>Component</th>
<th>Weight</th>
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<tr>
<td>Postings</td>
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<tr>
<td><em>End of the Line</em> Paper</td>
<td>10%</td>
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<td><em>Cod</em> Paper</td>
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<tr>
<td>Final research paper</td>
<td>30%</td>
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<td>Journals</td>
<td>15%</td>
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<td>Classroom discussion and group participation</td>
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1. Angel Postings (20%)

Pre-lecture materials (articles, websites, etc.) will be made available under this course’s group located on ANGEL (http://angel.msu.edu). These materials will provide a necessary background for the lectures, thus you need to be familiar with their contents. Students are required to post a short (1 to 3 paragraphs) reflection/question(s) on the ANGEL course website on the background material provided prior to the lecture. Your postings will allow you to identify parts of the readings you found confusing and/or draw connections among different readings.

- Your reflections/questions will be made available to the lecturer to provide them a basis in which to interact more effectively with each of you.
- Postings will be graded on quality and relevancy of your reflections and response, including the use of reference material.
- Postings should be between 1 to 3 paragraphs in length.
- Late posts receive 0%.

2. Short Papers (10% each)

Students must demonstrate command of the material covered in pre-departure lectures and identifying and exploring a subset of issues surrounding the regions we will be visiting; selecting a topic related to a recent or current day problem found in Scottish and British society, which has an integrative environmental, political, and criminology focus. Each student will be required to type short papers (3-5 pages, double space) for this class that demonstrate your ability to understand and integrate class material. Students will need to use information from multiple lectures and reading materials to provide an overview of the topic, evaluate the issue, and provide recommendations; referencing lectures and class readings to support statements that demonstrate an understanding of coupled human and natural systems related to the selected topic. Papers will be graded based on the clear and brief overview of the issue, proper use of reading material and lectures to support your argument, synthesis of what you have learned from this class to make your own recommendations, use of appropriate references and the logical structure of your paper. Late papers will receive deductions of 5% for each hour late.
The purpose of the short paper is to familiarize students with an environmental, political, or criminology problem in present-day U.K.; and to introduce students’ to the comparative, integrative, and critical approach used in this program. We may also ask students to read a book and report on that in relation to what they have learned from lectures.

3. Informal Oral Presentation
Students will share their findings with their colleagues while we are in the relevant regions. This will give students experience in public-speaking, presenting their findings orally, and engaging in a constructive dialog and search for solution that are biologically, socially, and culturally feasible.

4. Paper Outline
Students will be asked to prepare and submit an outline of their thesis for their proposed paper to the instructors during the study abroad component of the course. Instructors will meet with each student to help refine the outline to detail the integrative nature of their thesis on fundamental biological systems linked to the interaction of embedded and reliant social systems in the basin. The purpose is to have students engage in the second step of preparing to research and write their final paper. Provide an opportunity for instructor feedback prior to the student formally researching and writing the paper.

5. Final Paper (30%)
This final assignment will be a 10 to 15-page synthesis paper using a multidisciplinary approach that analytically and critically examining the inter-relationship between the social and ecological systems that influences the health of the environment and people of the region. Students will be expected to use appropriate documentation to support their arguments. The topic will be identified and approved by the instructors in the previously related assignments (Topic Questions, Outline). The topic will involve a problem of concern from the U.K. discussed during the program. Students will be expected to use the knowledge gained from MSU-instructors, local experts, previous related assignments as well as the experiences throughout the overseas study. The purpose is to evaluate the students’ ability to clearly present an integrative case study using knowledge gained from different disciplines, their ability to analytically and critically discuss the selected topic, and their ability to provide appropriate sources (scientific, personal experience, program based material) in support of their arguments.

6. Learning Points-Reflective-Journal (15%)
Students are required to take notes during all program related lectures and experiential activities. Students will be expected at the end of each instructional day to reflect on what they have learned, as well as to relate their learning to previous learning related to the U.K. and E.U. as well as the U.S.A. Comments on learning/experiences outside the instructional hours which are contributing to their learning experience are encouraged to be included. The purpose is to assist the student in understanding and integrating the intense, integrative, instructional objective of the program. As well as assisting instructors in evaluating students’ comprehension and integrative abilities.
7. Participation (15%)
Students will be expected to actively participate in all lectures, discussions, and experiential activities as to maximize the student’s learning experience. The purpose is to maximize the students learning experience.

American Fisheries Society In-Text Citation and Reference Styles
The below reference guidelines come from the American Fisheries Society Publication style guidelines. See the following webpage to download the entire PDF file for more in-depth instruction consult the class angel website or look at the reference information on the webpage: http://www.fisheries.org/html/publications/styleguide/styleguidetoc.shtml.

For lecture-based information (class notes, PowerPoints) you can use the following style:
- If the information is from your class lecture notes and not available elsewhere, such as on Angel:
  - In-text Citation: (Taylor 2007)
- If the information is available in electronic format, such as the class lecture, PowerPoint, Angel, use the format for referencing electronic sources to reference this material.
  - In-text Citation: (Taylor 2007)

Academic Honesty
ANR 475 will be conducted according to the university's policies on academic honesty/dishonesty. If you need clarification on these policies, please speak with the instructor or the College's Associate Dean for Undergraduate Studies. Article 2.3.3 of the Academic Freedom Report states "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the Center for Integrative Studies General Science adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu.)

Accommodations for Students with Disabilities
Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (essay, project, etc.). Requests received after this date may not be honored.