

**Applied Biodiversity Science II**  
Geography 689  
Spring 2011

<b>Instructor</b>	<b>Department</b>	<b>Email</b>	<b>Phone</b>	<b>Office location</b>
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**Pre-requisites:** Consent of the instructor

**Class meeting times and location:** TBA

**Course Description and Goal**

As advanced Applied Biodiversity Science (ABS) students, you are well on your way in terms of research design. You are making every attempt to ensure that you are asking the right questions in a multi-disciplinary way, to ensure that the results that you produce will be relevant to biodiversity conservation. Wouldn't it be great if your research could be translated directly into policy, legislation, and implementation? Then reality hits. . . Your scientific papers are being published but your report sits on a shelf and your recommendations are unused. There are many steps between science and implementation of conservation action. It is our hope that by understanding these linkages so that students can better design and implement their own research programs in such a way that they are intimately linked to environmental decision-making processes and thus have both theoretical and practical utility. To have holistic success as an ABS student, research results should be of the highest intellectual merit, be achieved through collaboration, be multi-disciplinary, and be applied to real conservation action.

The overall goal of this course is to provide a practical opportunity for advanced Ph.D. students to ensure that their research program truly fulfills this multi-faceted ABS mission. This course is designed to allow students to develop a practical understanding of the ways in which scientific information is actually incorporated into environmental decision-making. The course will provide the opportunity for students to learn about and incorporate the theoretical concepts and practical tools in the design of their research and information dissemination strategies so as to maximize the utility of their research to biodiversity conservation at multiple scales.

**Learning Objectives**

By the completion of the course, it our aim that students will:

1. Describe and analyze different forms of environmental governance and decision making, compare and contrast modes of decision making, and examine the linkages between theory and practice of institutional analysis
2. Describe scaling issues in environmental decision making, analyze the relationships between the scales of governance, and evaluate how research can integrate coupled human and biological processes and connectivities.
3. Identify stakeholders, describe their positions in conservation, and outline strategies for engagement, drawing from practical and theoretical knowledge.

4. Describe traditional ecological knowledge (TEK), evaluate the history of TEK in conservation, and assess how TEK can be integrated into contemporary conservation activities
5. Develop a research dissemination plan for multiple venues, including formal scholarly publications, informal education, grey literature, multi-media outlets
6. Evaluate research ethics for coupled human-environmental system, identify responsibilities for data collection and information dissemination to various stakeholder groups, and develop a personal research ethics statement

### **Course Format**

We will focus sequentially on a series of topics recognizing that there are links between them. Instructors, visiting lecturers, and field practitioners will provide some theoretical information and a variety of practical examples and case studies. Students in the class will also provide case studies from their own experiences. All of these will form the basis for comparative analyses, thoughtful discussions and debates, and constructive criticism of others' ideas. Most importantly, during the course of the semester, students will hone their dissertation research proposals to align with the goals and objectives of the Applied Biodiversity Science Program.

The class will be team taught by two geographers with very different backgrounds, one with more marine ecological and practical conservation experience, the other with more of a theoretical, Latin American, environmental justice, political ecology background, but both who have both come to recognize the value of understanding the governance process, in order to affect conservation on the ground. Each week we will introduce a new topic and provide background and readings, practical tools, and real-world examples of implementation (both successful and not). This will follow with lively class discussions that allow student to share their own concerns and experiences, to internalize the complexities of these issues, and ultimately to enhance their dissertation proposals by the inclusion of relevant and innovative strategies for information dissemination and for affecting conservation action.

### **Course Evaluation**

Students will be evaluated based on class participation and six assignments outlined below for which more specific instructions will be given during the course as appropriate. Grading for the course will follow a standard scale whereby A  $\geq$  90; B: 89.9-80; C: 79.9-70; D: 69.9-60.

#### **Assessment:**

35% - Participation

20% - Presentations (Team-based Project)

30% - Essay (Reflection Essays, 3 at 10%)

10% - Preliminary Research statement and fieldwork objectives

5% - Research Dissemination Strategies

### **Americans with Disabilities Act (ADA)**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability

requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>

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