ENR 8350: Ecosystem Management Policy
Fall 2013
Tues & Thurs 11:10-12:30 in Kottman 382
And Service Learning to be arranged

Instructor: Prof. Tom Koontz
School of Environment and Natural Resources
Office hours: by appointment

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Course Description and Objectives

Catalog description:

Theory and practice of integrating natural and social science for managing watersheds, forests, and regions. Evolution of policies to address human-ecological systems.

Rationale for offering this course:

In the U.S., approaches to natural resource management have undergone substantial shifts over time. The extractive, “frontier” approach of the 19th century gave way to the Progressive Era of the early 20th century, which emphasized professional, scientific management of resources to maximize certain commodity outputs. Over the past few decades, a new approach has been increasingly advocated, one based on ecological integrity and stakeholder collaboration. This approach, variously called “ecosystem management,” “watershed planning,” and “integrated resource planning,” among other terms, emphasizes sustainable ecological and social communities, achieved through integration of natural and social sciences in a collaborative decision-making context. Since the 1990s, at least 18 federal and numerous state agencies have adopted or advocated the ecosystem management paradigm, and across the country hundreds of ecosystem management projects have been documented at all levels of government. More recently, coupled human-ecological systems efforts have been undertaken; while not called “ecosystem management,” these combine natural and social science concepts.

As a holistic, integrated approach, ecosystem management emphasizes the importance of linking natural sciences with human dimensions. These diverse areas of scholarship are represented in the School of Environment and Natural Resources. To the degree that students have opportunities to learn about concepts and issues surrounding such integration, they will be better prepared to contribute as natural resource professionals, scholars, and informed citizens. This course aims to provide such an opportunity.

Student Performance Objectives:

As a consequence of this course, the student will demonstrate the ability to

1. Trace the evolution of dominant approaches to natural resource management in the U.S.
2. Explain factors leading to the growth of the ecosystem management approach.
3. Define the primary components included in ecosystem management and evaluate their benefits, drawbacks, and implications for natural resource management.
4. Identify practical challenges associated with adopting an ecosystem management approach.
6. Gain first-hand insight into the potential, and challenges, of ecosystem management, and familiarity with such efforts in Ohio and the broader U.S. context.
**Methods of Instruction and Course Requirements**

Classroom time will be spent in discussion. Assignments to be completed outside of class will facilitate the in-class work. In addition, students will either work on a research learning project with the instructor or with an organization in a service learning capacity.

In order to gain a fuller understanding of ecosystem management policy, each student will be expected to actively participate in the course. This involves (1) reading and thinking about the readings before the date on which they will be discussed, (2) participating in classroom discussions, (3) completing a series of memos, and (4) participating in approximately 20 hours of research learning or service learning.

The instructor will provide a structure for the course as well as a way to logically proceed through key concepts, by selecting appropriate readings, guiding discussions, and coordinating research learning and service learning. The instructor will be available for office hours, as arranged, during which time students are encouraged to visit.

The Carmen website for this course is where you will find most of the readings, and all of the reading questions. In addition, I have posted other relevant course information, and I will add news items as needed. I have posted two exemplary memos from last year, to give you an idea of what can be done with these. I will supplement this section with exemplary memos that you create for this class, so you can see your colleagues’ work.

**Required Readings**


Case Study, Harvard Program on Negotiation. (Instructor will bundle individual purchases together to save on processing costs)

Additional readings from journal articles, books, and other sources are described in the course outline. The readings are available electronically via the course Carmen website: [http://www.carmen.osu.edu](http://www.carmen.osu.edu)

**Grading**

Course grades are determined by points. A total of 240 points are available, as described below. The minimum point percentages to achieve a given grade are as follows:

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<th>Grade</th>
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<tr>
<td>A</td>
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<td>A-</td>
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Opportunities to earn points are as follows:

- Memos and Role Play Reflection (possible 100 points)
- In-class Participation (possible 40 points)
- Research Learning / Service Learning Project (possible 100 points)

Each student will write 3 memos (reflection papers), as scheduled at the end of either weeks 2, 6, and 10; or weeks 3, 7, and 13; or weeks 5, 9, and 14. The memo, approximately 2-3 pages single spaced, should synthesize some main ideas from the sessions of reading, discussions, and research/service
learning experience. It should include connecting ideas across different readings/discussions, applying concepts to the student’s service learning or areas of interest, and responding to ideas. The memo must identify questions for discussion. The purpose of the memo is to help the student synthesize material and think about how to use it, plus to indicate the level of understanding so that the instructor may better guide the course. In order to qualify for points, the memo must be posted on Carmen no later than noon Friday on the assigned weeks. The instructor will select 1 or 2 memos to post for the whole class to see. In addition, each student will write a reflection paper about the in-class role play simulation, due Tuesday Nov 5.

In-class participation scores will be based on participation in classroom discussion. Regular attendance is a necessary, but not sufficient, condition for meaningful participation. If you need to miss a class session, you should notify the instructor before the class session, and prepare a 1-2 page summary reflecting on the readings for the day, as a make-up. Each student will be the lead discussant for one of the readings. The student will be responsible for identifying the research question or reading focus, situating it in the context of other course ideas and readings, and providing an overall assessment. A signup sheet will be circulated in class.

The service/research learning project provides an opportunity for students to gain experience in ecosystem management policy by working directly with an organization or on a current research topic. At the end of the quarter, students will share their experiences via a written report and class presentation, linking them to course concepts. For service learning, the written report will also be given to the corresponding organization, and the organization will provide an evaluation of the student’s performance in working with the group.

Admission Procedure

This course is for graduate students. Prerequisites: grad standing. Upper level undergraduate students may be admitted with instructor approval.

Availability of Accommodations

If you need an accommodation based on the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment we can discuss the course format, anticipate your needs and explore potential accommodations. I rely on the Office For Disability Services for assistance in verifying the need for accommodations and developing accommodation strategies. If you have not previously contacted the Office for Disability Services, I encourage you to do so.

Course Content – Overview

Unit One examines natural resource management approaches in the U.S., from a historical perspective. It provides the background necessary to place the ecosystem management paradigm into context. New challenges in environmental policy and politics, as well as scientific advances, have led to increased interest in new ways of managing natural resources, and in the interface between science and policy. Ecosystem management is characterized by a wide range of definitions, which are discussed to develop common themes. The political nature of ecosystem management is described.

Unit Two focuses on challenges of adopting and implementing an ecosystem management approach. It includes examination of institutional barriers, likelihood of adoption, implementation, and lessons from government agencies attempting to implement ecosystem management.

Units Three and Four investigate two critical components of ecosystem management: collaboration and adaptive management. Ecosystem management calls for both citizens and scientists to take a more active role in decisions heretofore made primarily by civil servants. Possibilities of
collaboration are examined, along with citizen participation more generally and adaptive management as a tool for ecosystem decision-making.

If the increased resources required by ecosystem management are to pay off, it is important to examine the effectiveness of this approach. Unit Five evaluates what ecosystem management efforts are accomplishing in the U.S., including how governmental roles impact such efforts and debates about what criteria should be used. The unit also addresses the future of ecosystem management.

Course Outline

UNIT 1: Historical perspective: Science, Politics, and a New Paradigm (Sessions 1-6)

Thursday, Aug 22 (Session 1): Introduction to the course

Tuesday, Aug 27: (Session 2): Politics and natural resource management over time
Sabatier et al., “Eras of Water Management in the U.S.”

Thursday, Aug 29 (Session 3): The role of science in policymaking
Steel, Brent, Peter List, Denise Lach, and Bruce Shindler. “The Role of Scientists in the Environmental Policy Process: A Case Study from the American West.”

Tuesday, Sep 3 (Session 4): The science-policy interface in practice
Koontz et al., chapter 6: “Science-based Collaborative Management”
In-class exercise: How would YOU use science in collaborative decision making? What have you seen in your organization?

Thursday, Sep 5 (Session 5): Defining ecosystem management part 1

Tuesday, Sep 10 (Session 6): Defining ecosystem management part 2
Cortner & Moote, Ch 3: “A Paradigm Shift?”
Blomquist and Schlager, Political Pitfalls of Integrated Watershed Management
*Service learning check-in: background on your group*

UNIT 2: Adopting and Implementing Ecosystem Management (Sessions 7-10)

Thursday, Sep 12 (Session 7): Problem definition

Tuesday, Sep 17 (Session 8): Institutional analysis
*Research/Service learning check-in: progress report on your tasks*

Thursday, Sep 19 (Session 9): Implementing E.M. in the U.S. Forest Service and BLM
UNIT 3: Adaptive Management (Sessions 10-14)

Tuesday, Sep 24 (Session 10): Adaptive management concepts and practice

Thursday, Sep 26 (Session 11): Implementing adaptive management
Allen and Gunderson, “Pathology and Failure in the Design and Implementation of Adaptive Mgmt

Tuesday, Oct 1 (Session 12): Adaptive Management and the Regulatory Context
Ruhl, J.B., “Regulation by Adaptive Management – Is It Possible?”

Thursday, Oct 3 (Session 13): Invasive Species Case Study part 1

Tuesday, Oct 8: No class (instructor out of town)

Thursday, Oct 10: (Session 14): Invasive Species Case Study part 2

UNIT 4: Collaboration (Sessions 15-21)

Tuesday, Oct 15 (Session 15): Collaborative public management
Innes and Booher ch 1-2

Thursday, Oct 17 (Session 16): Case studies of collaborative public management
Innes and Booher ch 3 part (case 1 pp. 41-52, case 4 pp. 67-72, case 5 pp. 72-80, conclusion pp. 85-86)

Tuesday, Oct 22 (Session 17): Internal Workings of collaborative processes
Innes and Booher ch 4

Thursday, Oct 24 (Session 18): Citizen Participation
Arnstein, Sherry R. “A Ladder of Citizen Participation.”

Tuesday, Oct 29 (Session 19): Who should and who does participate in collaborative processes
Koehler, Brandi J. and Tomas M. Koontz. “Citizen Participation in Collaborative Watershed Partnerships”

Thursday, Oct 31 (Session 20) Role Play Federal Lands Case

Tuesday, Nov 5 (Session 21) Debrief Role Play Federal Lands Case
Bring in your paper on the role play

Unit 5: Ecosystem Management Effectiveness (Sessions 21-28)

Thursday, Nov 7 (Session 22): Partnership Activities and Factors for Success
Leach and Pelkey, “Making Watershed Partnerships Work”
Research/Service learning check-in: progress report on your tasks

Tuesday, Nov 12 (Session 23): Governmental Impacts on Management Efforts
Thursday, Nov 14 (Session 24): How to evaluate ecosystem management

Tuesday, Nov 19 (Session 25): An evaluation of ecosystem management cases
Excerpts from Layzer 2008, Natural Experiments. Ch. 1, 2, and 10.
Research/Service learning check-in: progress report on your tasks and group report

Thursday, Nov 21 (Session 26) Use of knowledge by policy makers and managers
Innes and Booher ch 6

Tuesday, Nov 26 (Session 27): Democratic governance and resilience
Innes and Booher ch 8

Thursday, Nov 28: No class - Thanksgiving Holiday

Tuesday, Dec 3 (Session 28): The future of ecosystem management
Nie, “Whatever Happened to Ecosystem Management and Federal Lands Planning?”

Thursday, Dec 5 – No class (reading day)

Exam Week, Wednesday, Dec 11, 10:00-11:45
Research/Service Learning project presentations

Academic Misconduct: Submitting plagiarized work to meet academic requirements, including the representation of another’s works or ideas as one’s own; the unacknowledged use and/or paraphrasing of another person’s work; and/or the inappropriate unacknowledged use of another person’s ideas; and/or the falsification, fabrication, or dishonesty in reporting research results, shall be grounds for charges of academic misconduct.

References


