

# **Syllabus**

## **FW 620 - Ecological Policy - 3 credits**

### **Oregon State University**

### **Winter - 2020**

#### **Course Content:**

*Emphasis is on current, complex, and controversial North American and international ecological policy issues. Primary focus is exploring the role of scientists, technocrats, elected and appointed officials, the public, and interest/advocacy groups in ecological policy analysis and implementation. Specific topics and case studies considered are: (1) basic principles of policy analysis; (2) managing wildfire on public lands; (3) balancing competing demands for scarce water supplies; (4) managing large predatory wildlife, especially wolves, cougars, and grizzlies; (5) recovering and sustaining wild salmon runs; (6) determining appropriate use of genetically modified organisms; (7) resolving multiple use conflicts in managing public forests; (8) tackling human-caused climate change; (9) assessing the political clashes over whaling and other marine mammals; and (10) unscrambling conflict and controversy over marine protected areas and ecosystem management.*

#### **Instructor:**

##### **Robert T. Lackey**

*Professor of Fisheries*

Office: Weniger 459

Voice: (541) 737-0569

Email: [Robert.Lackey@oregonstate.edu](mailto:Robert.Lackey@oregonstate.edu)

Web: <http://blogs.oregonstate.edu/lackey/>

*Dr. Bob Lackey is professor of fisheries science at Oregon State University. In 2008, he retired after 27 years with the Environmental Protection Agency's national research laboratory in Corvallis where he served as Deputy Director, Associate Director for Science, and in other senior science leadership positions. Since his very first fisheries and wildlife job as an undergraduate mucking out raceways in a trout hatchery, he has worked on an assortment of environmental and natural resource issues from various positions in government and academia. His professional assignments involved diverse and politically contentious issues, but mostly he has operated at the interface between science and policy. He has published over 100 articles in scientific journals and is a fellow of the American Fisheries Society and the American Institute of Fishery Research Biologists. Dr. Lackey has long been an educator, having taught at five North American universities and currently teaches a graduate course in ecological policy at Oregon State University. Canadian by birth, he is now a U.S.-Canadian dual-citizen living in Corvallis, Oregon.*

## Target Audience:

*Graduate students in natural resources, environmental sciences, ecological sciences, natural resource and ecological economics, oceanography, civil engineering, marine resource management, political science, environmental ethics, and others with a background and interest in ecological policy, environmental protection, and natural resource management issues.*

## Prerequisites:

*This is an advanced graduate level class. As stated in the OSU catalog, 600-level courses are targeted toward "graduate, primarily doctoral" students. Masters students are welcome, but all students should be aware that course expectations are high. Students should have an academic background and current understanding of natural resources, environmental science, ecology, natural resource economics, ecological economics, marine resource management, oceanography, geosciences, political science, or similar discipline, or have the consent of the professor.*

## Course Grading:

*Individual student performance will be assessed on an A → F basis (A = 4.0, A- = 3.7, B+ = 3.3, etc.) and determined by grading each student's written products: (1) the quality of the critiques of assigned articles submitted; and (2) the quality, frequency, and timeliness of participation in the Canvas Discussion Board.*

*First, over the 10-week term, each student is required to write at least eight (8) 1,000 – 1,500-word critiques evaluating weekly topics (a topic consists of a policy backgrounder and two assigned articles) and submit the critique in Microsoft Word format (or equivalent) by midnight Corvallis time of the following **Saturday** (see class schedule on the following Syllabus pages). Late submissions will be accepted, but will be penalized substantially. An example of the format and style of the critiques is posted in Canvas and this template should be used **precisely** to guide the writing and formatting of each critique. For grading purposes, the eight (8) critiques having the highest grades will be used to assess each student's overall performance. Consequently, a student has the option, without penalty, to skip 2 of the 10 possible critiques.*

*Second, over the 10-week term, each student will substantively and regularly participate on the Canvas Discussion Board on a weekly basis. Each week (Sunday) I will post a discussion topic on the Discussion Board and your participation is required. Regular participation by individual students is defined minimally as at least six (6) posts per week, preferably more. Each student's contribution to the weekly on-line discussions will be evaluated in terms of content, originality, frequency, and timeliness. You are expected to participate in the Discussion Board each week even if you elect not to write a critique for that week. Taken as a whole, the grade for assessment of student performance in Canvas discussions will count the equivalent of two (2) critiques.*

*Third, the overall grade for the course will be determined by averaging the 8 highest weekly critique grades and the 2 grades for participation in the Discussion Board. There will be no examinations.*

## Critique Grade Definitions:

<b>A</b> = 4.0	<b>Exceptional</b>	Outstanding work, in-depth analysis and thought; very well written using highly insightful critiques and displaying substantial originality; a pleasure to read using superior sentence variety and vocabulary. Could be posted on the Discussion Board as a “how to” example for other FW 620 students. Great job.
<b>A-</b> = 3.7		Generally excellent to very good analysis and thought; well written with originality making good use of appropriate vocabulary, sentence structure, and logically organized. Overall, a very good critique.
<b>B+</b> = 3.3	<b>Superior</b>	Good analysis and thought, well written using effective sentence structure and appropriate vocabulary, but does not display in-depth analysis or much originality.
<b>B</b> = 3.0		Good analysis and thought to support main points; soundly written. A superior example of analysis of the case study.
<b>B-</b> = 2.7		Competent analysis and thought and soundly written, but the approach, supporting analysis, and aspects of the critique could be improved. Overall, a credible job.
<b>C+</b> = 2.3	<b>Average</b>	Fair analysis and thought demonstrated in the critique, but approach and/or writing need some improvement.
<b>C</b> = 2.0		Work demonstrates an understanding of the case study, but fails to address all dimensions adequately, and/or writing style and organization limits the reader’s ability to extract board ideas and concepts. Not bad, but could be better.
<b>C-</b> = 1.7		Barely acceptable work from a graduate student. Thought and analysis is inadequate and flawed and/or use of language, sentence structure, or organization needs considerable improvement.
<b>D</b> = 1.0	<b>Inferior</b>	An unacceptable critique from a graduate student. Demonstrates a lack of intellectual effort that does not illustrate a command of subject matter, approach, and/or is poorly written; difficult to follow.
<b>F</b> = 0.0	<b>Fail</b>	Barely managed to hand in something. The critique does not address the case study beyond the most superficial level; it is difficult to determine the major points of the analysis because it is so poorly constructed and presented.

## Course Required Reading:

*Assigned policy/science articles (20) and “policy backgrounders” (10) are required reading [see class schedule on following pages]. Copies of all required articles and backgrounders are posted in Canvas. Optional articles (“background readings”) are also posted in Canvas and you are encouraged to at least skim these to gather additional perspectives regarding the case study. There is no text book for this course.*

## Student Learning Goals and Assessment:

- *Understand and explain in clear and logical writing the basic principles of contemporary ecological policy and ecological policy analysis (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*
- *Evaluate and assess in clear and understandable writing how contemporary natural resource management and environmental protection issues are analyzed from a policy perspective (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*
- *Analyze a series of ecological policy case studies using a range of perspectives and viewpoints presented in this course on how science interconnects with ecological policy analysis and decision-making (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*

## Students with Disabilities:

*Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.*

## Reach Out for Success:

*University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it is important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success at:*

<https://counseling.oregonstate.edu/reach-out-success>

*If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).*

## Expectations for Student Conduct:

*Students are expected to maintain proper academic conduct in all aspects of FW 620. This includes treating peers with respect and meeting the conduct expectations of Oregon State University regarding cheating or other behaviors. To review University expectations, please visit the following web site:*

<http://studentlife.oregonstate.edu/studentconduct>

*FW 620 requires weekly and considerable writing from each student. Students are expected to be honest and ethical in their academic work. This includes use of the work of students currently or previously enrolled in this class. The following relevant text is taken from the OSU web site:*

*Academic or scholarly dishonesty is defined as an act of deception in which a student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the student's own efforts or the efforts of another. It includes:*

**CHEATING** - *use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.*

**FABRICATION** - *falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.*

**ASSISTING** - *helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person.*

**TAMPERING** - altering or interfering with evaluation instruments or documents.

**PLAGIARISM** - representing the words or ideas of another person or presenting someone else's words, ideas, artistry or data as one's own. Plagiarism includes but is not limited to copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.

For further information and resources specifically for Ecampus students, please visit the following university web site:

<http://ecampus.oregonstate.edu/services/student-services/success/>

## Class Schedule and Assignments

### Week 1 — Ecological Policy Analysis (January 5)

*Nine axioms or general principles about ecological policy will be presented and described in detail this week. Understanding these axioms will be essential to analyzing the case studies that will follow in Weeks 2 – 10. As you study the case studies presented in subsequent weeks, you will need to regularly revisit to these nine axioms.*

**Backgrounder:** Lackey, Robert T. — Ecological Policy Analysis  
**Reading #1:** See Canvas “Weekly Topics” for specific article to read.  
**Reading #2:** See Canvas “Weekly Topics” for specific article to read.  
**Critique due:** January 11

### Week 2 — Wildfire Policy (January 12)

*One of the most challenging questions facing managers of public lands is developing a scientifically sound and publicly supported policy toward wildfire — one that meets society's goals for those lands and is based on the best available scientific information. The diversity of opinion (policy preferences) is wide, even extreme, on what characteristics the desired policy should encompass. The wide range of opinion is based, in part, on the fact that many individuals and organizations have strong and vested interests in the outcome of the policy debate.*

**Backgrounder:** Lackey, Robert T. — Wildfire Policy  
**Reading #1:** See Canvas “Weekly Topics” for specific article to read.  
**Reading #2:** See Canvas “Weekly Topics” for specific article to read.  
**Critique due:** January 18

### Week 3 — Water Policy (January 19)

*The "water wars" have long been a fact of life in many areas of the western United States and are likely to be so for the foreseeable future. Recent court cases in the California Central Valley and the Oregon/California Klamath Basin are front and center on the policy and political scene. Dam removal (and construction) are hot topics in many States. Overall, many western regions continue to suffer from severe and long-term water shortages, especially for high quality water. The seemingly insatiable demand for freshwater shows little sign of letting up, nor do most analysts expect much change anytime soon. Many ecological policy issues are driven by competition for scarce water resources.*

**Backgrounder:** Lackey, Robert T. — Water Policy  
**Reading #1:** See Canvas "Weekly Topics" for specific article to read.  
**Reading #2:** See Canvas "Weekly Topics" for specific article to read.  
**Critique due:** January 25

### Week 4 — Wolf, Cougar, and Grizzly Policy (January 26)

*Developing a politically acceptable policy about large predatory mammals (e.g., wolves, cougars, and grizzlies) is challenging. As is true in many localities, much of the Pacific Northwest public supports their presence (cougars) or their reintroduction (wolves). Grizzly reintroduction is much less commonly discussed. Conversely, many residents (especially those in rural regions) are vehemently opposed in large part because of concerns about predation on livestock, pets, and wildlife (especially deer and other important game species).*

**Backgrounder:** Lackey, Robert T. — Wolf, Cougar, and Grizzly Policy  
**Reading #1:** See Canvas "Weekly Topics" for specific article to read.  
**Reading #2:** See Canvas "Weekly Topics" for specific article to read.  
**Critique due:** February 1

### Week 5 — Wild Salmon Policy (February 2)

*The case study this week will be salmon policy, particularly current issues in California, Oregon, Idaho, Washington, and British Columbia. Efforts to restore runs of salmon have been undertaken in this region since the mid to late 1800s. Billions of dollars have been spent, but without much long-term success. As newspaper articles regularly highlight, the plight of commercial and recreational salmon fishermen along the West Coast of North America appears grim.*

**Backgrounder:** Lackey, Robert T. — Wild Salmon Policy  
**Reading #1:** See Canvas "Weekly Topics" for specific article to read.  
**Reading #2:** See Canvas "Weekly Topics" for specific article to read.  
**Critique due:** February 8



## Week 6 — GMO Policy (February 9)

*The debate over developing a consensus public policy concerning the use of genetic engineering (often called genetic modification) is mired in vitriolic political arguments involving an amorphous mix of values, preferences, and scientific information. Many proponents of using the technology argue that it has been demonstrated to be low risk and is essential to providing sufficient high-quality food to meet human needs, especially in developing countries. Others, however, argue that resorting to genetic engineering is unnecessary (along with being dangerous) because people should not be forced to eat food produced by unproven technology.*

**Backgrounder:** Lackey, Robert T. — Genetic Engineering Policy

**Reading #1:** See Canvas “Weekly Topics” for specific article to read.

**Reading #2:** See Canvas “Weekly Topics” for specific article to read.

**Critique due:** February 15

## Week 7 — Owl vs. Logging Policy (February 16)

*Public (owned by Federal or State governments) forests were created to attain public benefits, but exactly what are those benefits and who should receive them? To some segments of society, the public forests ought to be managed to achieve the goals and aspirations of local (usually rural) residents which typically means that consumptive, economic uses (especially timber harvest and mining) ought to be encouraged or at least be part of a multiple use approach. To other segments of society, the forests ought to preserve the biotic heritage of the nation and be managed more like wilderness areas or national parks with little or no commercial enterprise and strictly limited recreational activity.*

**Backgrounder:** Lackey, Robert T. — Owl vs. Logging Policy

**Reading #1:** See Canvas “Weekly Topics” for specific article to read.

**Reading #2:** See Canvas “Weekly Topics” for specific article to read.

**Critique due:** February 22

## Week 8 — Climate Change Policy (February 23)

*Most of the public debate over climate change policy revolves around “facts” and “science”. The implied assumption appears to be that if we all agreed on the facts of the case (i.e., the science about climate change), the appropriate policy choice would be clear. However, the distribution of costs and benefits is arguably the most important factor in settling on a specific policy choice. As with all ecological policy issues, the most important factor is the perception of who receives the benefits vs. who will bear the costs.*

**Backgrounder:** Lackey, Robert T. — Climate Change Policy

**Reading #1:** See Canvas “Weekly Topics” for specific article to read.

**Reading #2:** See Canvas “Weekly Topics” for specific article to read.

**Critique due:** February 29



## Week 9 — Whaling and Marine Mammal Policy (March 1)

*Developing publicly supported, biologically sound policies regarding marine mammals (generally) and whales (specifically) are among the most challenging facets of natural resource management. Conducting credible, realistic, and useful policy analysis is also exceptionally difficult. Many people view mammals very differently from fish and shellfish and therefore there are often drastically different and mutually exclusive competing policy goals. Policy analysis is complicated further because for marine mammals, society and individuals receive intangible benefits from preserving species, especially those in danger of extinction or those with charismatic qualities.*

**Backgrounder:** Lackey, Robert T. — Whaling and Marine Mammal Policy  
**Reading #1:** See Canvas “Weekly Topics” for specific article to read.  
**Reading #2:** See Canvas “Weekly Topics” for specific article to read.  
**Critique due:** March 7

## Week 10 — Marine Protected Areas Policy (March 8)

*For both marine protected areas (MPAs) and ecosystem management (EM), there are many definitions. For MPAs, most definitions describe an area of the ocean environment that has been reserved through law, policy, or regulation by a governmental organization to provide enhanced protection to part or all natural or cultural resources of the specified area. Common examples of marine protected areas are national and state parks and wildlife refuges. For ecosystem management (sometimes called ecosystem-based management), there are a wide range of definitions used to describe what remains an ambiguous and highly contentious notion. Both MPAs and EM gained popularity in response to the widespread realization that human pressures on ocean resources were challenging their sustainability.*

**Backgrounder:** Lackey, Robert T. — Marine Protected Areas Policy  
**Reading #1:** See Canvas “Weekly Topics” for specific article to read.  
**Reading #2:** See Canvas “Weekly Topics” for specific article to read.  
**Critique due:** March 14

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