FISH 400: Human Dimensions of Natural Resource Systems

Instructor: Dr. Courtney Carothers
Office: 207B O'Neill Building
School of Fisheries and Ocean Sciences
University of Alaska, Fairbanks
Class Time: T/Th 11:30-1:00

Prerequisites: Junior or senior standing.

Course Website: Blackboard
https://classes.uaf.edu/webapps/login/
Phone: 907-474-5329
Email: carothers@sfos.uaf.edu
Class Location: TBA

Course Description
This course will explore the social and cultural dimensions of natural resource systems. We will examine the relationships between humans and the environment historically and cross-culturally. The course is organized into three units: 1) Foundations of human/environment relationships, 2) Systems of knowledge, and 3) Resource management. Students will gain an understanding of the ways in which social scientists study social-ecological relationships and they ways in which these data inform resource management. We will focus on specific theoretical traditions, including: historical ecology, cultural ecology, ecological anthropology, political ecology, traditional ecological knowledge, and property theory. This course will be a mixture of lectures and seminar discussions. Students are expected to come to class ready to discuss the readings assigned for the day.

Course Objectives
- To introduce primary concepts used to understand the social and cultural dimensions of fishery and environmental systems.
- To explore the relationships between systems of knowledge and processes of resource management.
- To foster interdisciplinary discussion of the contributions and challenges of applying social scientific perspectives to the study of fishery and environmental systems.
- To enhance critical analysis of textual material, oral and written communication, and participatory learning.

Course Requirements
Class Participation
Students are expected to attend class, take notes, ask questions, and actively participate in class discussions. Assigned readings should be read before the lecture for which they are assigned.

Discussion Topics
Each week students must post at least one discussion topic/response on the course Blackboard Discussion Board. These discussion topics should draw on assigned readings, lectures, and/or films for the week and raise important questions or issues for class discussion. Topics should be clearly and concisely written (short paragraph; max 100 words). These posts should not merely ask for more information, but instead provide some topics for the critical analysis of course material. Discussion topics must be posted by 9am on Thursdays. A portion of Thursday meetings will be devoted to discussing issues raised by the class in these postings.

Short essays
Students will prepare three short essays for this course. Essays will be due in Week 6, 10, and 14. Specific topics for essays will be distributed in class the week before they are due. Essays will provide an opportunity for students to critically reflect on course readings, lectures, discussions, and films. Essays should be no longer than 750 words. Essays should be printed in 12-point font, double-spaced, one-inch margins. Essays will be graded on insight, clarity, and demonstration of careful reading and synthesis of course material.

Quizzes
Three in-class quizzes will cover the main concepts surveyed in this course. Quiz format will be definition/identification and short answer.
Final Project
Each student will complete a final research paper (~ 1500 words; same format as short essays) on a topic relevant to this course. Students will have an opportunity to select from a list of topics or propose their own. An outline of the proposed paper and sources will be due in Week 10. Students will give short presentations of their research paper to the class at the end of the quarter.

GRADING
The grading for this course will be based on absolute points. The value of course assignments are:

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentage of Total</th>
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<tbody>
<tr>
<td>Class participation</td>
<td>25</td>
</tr>
<tr>
<td>Discussion topics</td>
<td>50</td>
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<tr>
<td>Short essays</td>
<td>150</td>
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<tr>
<td>Quizzes</td>
<td>150</td>
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<tr>
<td>Final project</td>
<td>100</td>
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<td>Final presentation</td>
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<td><strong>Total</strong></td>
<td><strong>500</strong></td>
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Grades will be assigned according to the following scale:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Grade Points</th>
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</thead>
<tbody>
<tr>
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<td>98-100%</td>
<td>4.0</td>
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<tr>
<td>A</td>
<td>93-97%</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>90-92%</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>87-89%</td>
<td>3.3</td>
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<tr>
<td>B</td>
<td>83-86%</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%</td>
<td>2.7</td>
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<tr>
<td>C+</td>
<td>77-79%</td>
<td>2.3</td>
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<tr>
<td>C</td>
<td>73-76%</td>
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<tr>
<td>C-</td>
<td>70-72%</td>
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</tr>
<tr>
<td>D+</td>
<td>67-69%</td>
<td>1.3</td>
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<td>59% and below</td>
<td>0.0</td>
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ADDITIONAL INFORMATION
Make-up policy Make-ups for assignments and quizzes are available only for serious illness or family emergencies. Please contact the instructor as soon as possible if you have any extenuating circumstances.

Disability Accommodations If you need special accommodations in this course due to a physical or learning disability, please contact the instructor as soon as possible so we can work with the University to accommodate your needs. You may also contact the Office of Disabled Services at 203 WHIT (907) 474-5655, TTY: (907) 474-1827, E-mail: fyds0@uaf.edu.

Academic Integrity University of Alaska students are expected to conduct themselves with academic integrity. There is a zero-tolerance policy for plagiarism (http://www.uaf.edu/library/instruction/handouts/Plagiarism.htm) or cheating. Please review the Student Code of Conduct to help you understand what is expected and what measures are taken to address misconduct: http://www.uaf.edu/catalog/current/academics/regs3.html#Student_Conduct
REQUIRED TEXTS


ASSIGNED READINGS (available via Blackboard)


<table>
<thead>
<tr>
<th>Week</th>
<th>Theme/Lecture Topic</th>
<th>Readings</th>
<th>Assignments</th>
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</thead>
</table>
| 1    | I. Foundations of Human/Environment Relationships  
Introducing culture and nature | Tsing 1999  
De Young et al (Part I) |  |
| 2    | Historical ecology; cultural ecology; ecological anthropology | Denevan 1992  
Kirch 1997  
Orlove 1980  
Netting 1986 |  |
| 3    | Social-ecological systems; Resilience | Ebbin 2009  
Hamilton 2007  
Robards & Greenberg 2007  
Walker et al. 2004 |  |
| 4    | Political ecology | Robbins 2004  
Nadasdy 2003 |  |
| 5    | Case study: Fishing & marine lore in Palau | Johannes 1992 |  |
| 6    | Case study: Salmon fishery in SE Alaska | Arnold 2008 | Essay 1 |
| 7    | II. Systems of Knowledge  
Sociology of Scientific Knowledge  
Use of science in resource management | Callon 1986  
Jasanoff 1995 | Quiz 1 |
| 8    | Traditional ecological knowledge (concepts) | Berkes (Ch 1-3) |  |
| 9    | Traditional ecological knowledge (practice);  
co-management | Berkes (Ch 4-7)  
Pinkerton 1994 | Final Project Outline |
| 10   | Comparing TEK & science systems | Agrawal 1995  
Berkes (Ch 8-10) | Essay 2 |
| 11   | III. Resource Management Systems  
Sociocultural aspects of resource management | De Young et al (Pt II) | Quiz 2 |
| 12   | Theories of resource management; co-management | Pinkerton & John 2008  
Clay & Olson 2008 |  |
| 13   | Property theory; Claims to resources;  
Stakeholder involvement | Langdon 1989  
Mansfield 2004 |  |
| 14   | Environmental values; Conservation;  
Development | Cronon 1995  
Sloan 2002 | Essay 3 |
| 15   | Case study: Individual fishing quotas and communities | McCay 2008  
Carothers 2008  
Macinko 2007  
Bromley 2008 | Quiz 3 |
| 16   | Course Summary;  
Final project presentations | | Final Projects |