

**CULTURE AND ECOLOGY**  
**Anthropology 414/514**  
**MW 2:00 – 3:50**

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Office: 141-Q  
Office Hours: M 10:00-11:00 am  
T 1:00-2:00 pm  
and by appointment

**COURSE DESCRIPTION**

Indigenous ecological knowledge is the sum of beliefs, knowledge and practices passed down from generation-to-generation about living beings (including humans) and the environment. It often contains thousands of years of incremental learning, coded in stories, songs, rituals, management practices, spiritual concepts and more. Much of this knowledge has benefits to biodiversity conservation; it is also under threat for a variety of reasons from climate change and natural hazards to marketization and the establishment of protected areas.

This advanced course utilizes an anthropological perspective to understand the relationships between culture and ecology, with a focus on Indigenous ecological knowledge and practice. We will critically examine the concept of Indigeneity and the ethics of conducting research with Indigenous peoples. We will explore frameworks for understanding Indigenous ecological knowledge and case studies that address the relevance of indigenous knowledge to contemporary resource management. Students will also develop and share a research project in which they apply classroom concepts to a context of their choice.

**LEARNING OBJECTIVES**

By the end of the course, students will have

- Developed a critical understanding of the concept of Indigeneity.
- Assessed the ethics of conducting research on Indigenous ecological knowledge and practice.
- Learned frameworks for understanding Indigenous ecological knowledge and practice.
- Examined case studies from throughout the world related to Indigenous ecological knowledge and its relevance to biodiversity conservation.
- Learned contemporary issues affecting Indigenous peoples and their relationships with their ancestral territories.
- Assessed the integration of Indigenous ecological knowledge with Western science.

## **REQUIRED READINGS**

Berkes, Fikret. 2012. *Sacred Ecology*. 3<sup>rd</sup> Edition. New York: Taylor and Francis.

All other class materials are available on Desire to Learn (see below). You may either read these documents online or print a copy for personal use.

## **COURSE REQUIREMENTS**

Students taking this course Pass/No Pass are required to earn at least the equivalent of a 'C-' to pass the class. Anthropology majors and minors must take the class for a grade.

### **Undergraduate Requirements**

Class Participation and Attendance: 10%  
Short Essays (4 Total): 55%  
Final Paper: 30%  
Final Presentation: 5%

### **Graduate Requirements**

Course Facilitation/Community Engagement Project: 10%  
Short Essays (4 Total): 55%  
Final Paper: 30%  
Final Presentation: 5%

### **Participation**

Everyone is expected to participate in classroom discussions, activities and breakout groups. This does not just mean talking, but also active listening. Be prepared for me to call on you or ask you to let one of your classmates speak.

You are allowed three unexcused absences without negatively affecting your participation grade. Any additional unexcused absences will result in a reduction of your participation grade, at the rate of 7.5 points (out of 100) per class you miss. After subtracting any points due to absence, I will assign a final score based on the quality of your classroom participation. Simply coming to class will not get you all the participation points.

### **Illness, Late Papers and Plagiarism**

If you are sick, it is imperative that you let the instructor know about your illness through email. With proper notice and communication, you will not

be penalized for illness-related absences, and you will have the opportunity to make up missed assignments.

Late papers will lose one letter grade for each day past due except in cases of severe illness or emergency. Requests for extensions on deadlines must be made in writing ahead of the due date. All work must be completed for students to receive a passing grade. Students with a documented disability who need accommodations in this course should inform the instructor immediately.

If you are an Anthropology major, please go see one of the faculty in the Anthropology Department for advising to discuss course-taking to meet graduation requirements. These meetings are also an opportunity to receive suggestions on career development.

*Plagiarism* (intellectual theft) is a very serious offense and will not be tolerated. Any assignment containing plagiarized material will receive a failing grade. You are responsible for reading and understanding the department handout on plagiarism, available on Desire to Learn and the Anthropology Department website. Please let the instructor know if you have any questions about the policy. This is a serious offense.

### **Desire to Learn**

The course syllabus, readings and assignments will be available on Desire to Learn To login, you need an Odin login username and password. To get an Odin account, visit <https://www.account.pdx.edu>. Please contact the instructor if you have any difficulties using this resource.

### **Safe Campus Module**

If you have not done so already, please complete the Safe Campus Module in D2L. The module should take approximately 30 to 40 minutes to complete and contains important information and resources. For resources, see PSU's Enrollment Management & Student Affairs: Sexual Prevention & Response website at <http://www.pdx.edu/sexual-assault/>.

## **ASSIGNMENTS**

### **Short Essays**

Students will write four short essays, each 5-6 pages double-spaced long. Essay topics will be assigned for particular sections and will focus on the readings in that particular section. Essays will be due roughly a week after we finish covering the section material.

### **Course Facilitation and Community Engagement Planning and Implementation (Graduate)**

Graduate students are expected to facilitate two course periods (one individually, one in a group), which will be evaluated by the course instructor and their peers. Course facilitation includes developing a lecture that draws from the required readings and additional sources and creating an activity that reinforces the major concepts from the lecture.

Graduate students are also expected to plan and implement a community engagement day related to classroom concepts on February 28, March 1, March 7 or March 8.

### **Final Paper**

Students will develop a research project in which they apply classroom concepts to a context of their choice. Projects will thematically focus on an aspect of Indigenous ecological knowledge in practice. Sample project topics include: Indigenous fire management in the Northwest, U.S.; collaborative resource management in Amazonia; Native American permaculture in urban spaces; Native Alaskan ecological knowledge revitalization through technology; the integration of Indigenous knowledge and Western science in climate change monitoring.

As part of the assignment, you are required to turn in a Project Proposal. Students who do not submit a proposal by the posted deadline will have 10 points deducted from their Final Paper score (100 possible points).

### **Final Presentation**

Students will conduct an 8-10 minute PowerPoint presentation on their projects. Presentation must clearly and accessibly communicate the primary components and take home messages of the Final Paper, using both text and visuals.

## Course Outline

*Note: Undergraduate students read regular text; graduate students read both regular text and italicized text.*

### 1. Indigenous Peoples: Definitions and Ethics

January 5: Course Overview

January 7: Who Is Indigenous?

Beteille, Andre

1998 The Idea of Indigenous People. *Current Anthropology* 39(2):187-191.

Childs, John Brown, and Guillermo Delgado

1999 On the Idea of the Indigenous. *Current Anthropology* 40(2):211-212.

Kuper, Adam

2003 The Return of the Native. *Current Anthropology* 44(3):389-395.

Asch, Michael, Colin Samson, Dieter Heinen, Justin Kenrick, Jerome Lewis, Sidsel Saugestad, and Terry Turner

2004 On the Return of the Native. *Current Anthropology* 45(2):261-265.

*Hames, Raymond, 2007. The Ecologically Noble Savage Debate. Annual Review of Anthropology 36:177-190.*

January 12: Ethics and Indigenous Peoples I

Berkes, Chapter 2: Emergence of the Field

Smith, Linda Tuhiwai

1999 Chapter 1. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books Ltd. Pp. 19-41.

*Smith, Linda Tuhiwai*

1999 Chapter 2. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books Ltd. Pp. 42-57.

January 14: Ethics and Indigenous Peoples II

American Anthropological Association Code of Ethics

International Society for Ethnobiology Code of Ethics

United Nations  
2007 Declaration on the Rights of Indigenous Peoples  
United Nations-REDD Programme

United Nations  
2013 Guidelines on Free, Prior and Informed Consent

*Harry, Debra and Le'a Malia Kenehe*  
2006 *Asserting Tribal Sovereignty Over Cultural Property: Moving Towards Protection of Genetic Material and Indigenous Knowledge. Seattle Journal for Social Justice 27: 1-25.*

## **2. Frameworks for Understanding Indigenous Ecological Knowledge**

January 19: No Class (MLK Day)

January 21: Context of Traditional Ecological Knowledge

Berkes, Chapter 1: Traditional Ecological Knowledge and Its Transmission

Berkes, Fikret and Nancy Turner  
2006 Knowledge, Learning, and the Evolution of Conservation Practice for Social-Ecological System Resilience. *Human Ecology* 34(4): 479-494.

### **Short Essay 1 Due**

January 26: Representations of Indigenous Knowledge I

Zent, Stanford  
2012 A Genealogy of Scientific Representations of Indigenous Knowledge. In S. Heckler (ed) *Landscape, Process and Power: Reevaluating Traditional Environmental Knowledge*. Oxford: Berghahn Books. Pp. 19-67.

*Berkes, Chapter 3: Intellectual Roots of Traditional Ecological Knowledge*

*Spoon, Jeremy*  
2014 *Quantitative, Qualitative and Collaborative Methods: Approaching Indigenous Ecological Knowledge Heterogeneity. Ecology and Society 19(3).*

January 28: Representations of Indigenous Knowledge II

Berkes, Chapter 4: Traditional Knowledge Systems in Practice

Garibaldi, A. and N. Turner

2004 Cultural Keystone Species: Implications for Ecological Conservation and Restoration. *Ecology and Society* 9(3).

### **Project Proposal Due**

### **3. Indigenous Ecological Knowledge and Practice**

February 2: Cree Case Studies

*Undergraduate students select 1; graduate students read all 3*

Berkes, Chapters 5: Cree Worldview “From the Inside”

Berkes, Chapter 6: A Story of Caribou Learning

Berkes, Chapter 7: Cree Fishing as Adaptive Management

February 4: Management of “Wild” and Domesticated Landscapes

Anderson, M. Kat

2005 Introduction. In *Tending the Wild: Native American Knowledge and the Management of California’s Natural Resources*. Berkeley: University of California Press. Pp. 1-11.

Turner, N. J., D. Deur, and C. R. Mellott

2011. “Up On the Mountain”: Ethnobotanical Importance of Montane Sites in Pacific Coastal North America. *Journal of Ethnobiology* 31:4-43.

### **Short Essay 2 Due**

February 9: Fire Management

Bird, D.W., R.B. Bird and C.H. Parker

2005 Aboriginal Burning Regimes and Hunting Strategies in Australia’s Western Desert. *Human Ecology* 33(4):443-464.

Spoon, Jeremy, Richard Arnold, Brian Lefler and Christopher Milton.

2015 Nuwuvi (Southern Paiute), Shifting Fire Regimes, and the Carpenter One Fire in the Spring Mountains National Recreation Area, Nevada. *Journal of Ethnobiology*.

February 11: Religion and Environmental Practice

Anderson, E.N.  
2012 Religion in Conservation and Management: A Durkheimian View. *Journal for the Study of Religion, Nature and Culture*. 6(4): 398-420.

*Spoon, Jeremy*  
2015 *Everyday Buddhism and Environmental Decisions in the World's Highest Ecosystem. Journal for the Study of Religion, Nature and Culture.*

Videos: Embrace, Beyul: Sacred Hidden Valleys of the Himalaya

#### **4. Contemporary Issues**

February 16: Challenges for Indigenous Knowledge

Berkes, Chapters 11: Challenges for Indigenous Knowledge

McCarter, Jon et al.  
2014 The Challenges to Maintaining Indigenous Ecological Knowledge. *Ecology and Society* 19(3).

February 18: Marketization

Olson, Elizabeth A.  
2013 Anthropology and Traditional Ecological Knowledge: A Summary of Quantitative Approaches to Traditional Knowledge, Market Participation, and Conservation. *Culture, Agriculture, Food and Environment* 35(2): 140-151.

*Reyes-García, V., J. Paneque-Gálvez, A.C. Luz, M. Gueze, M.J. Macía, M. Ortra-Martínez, and J. Pino*  
2014 *Cultural Change and Traditional Ecological Knowledge: An Empirical Analysis from the Tsimane' in the Bolivian Amazon. Human Organization* 73(2):162-173.

#### **Short Essay 3 Due**

February 23: Climate Change

Berkes, Chapter 8: Climate Change and Indigenous Ways of Knowing



Nijbroek, Rovic P.

2014 Mangroves, Mudbanks and Seawalls: Whose Environmental Knowledge Counts When Adapting to Sea Level Rise in Suriname? *Journal of Political Ecology* 24: 534-550.

*Salick, J. Anja Byg and Kenneth Bauer*

2012 *Contemporary Tibetan Cosmology of Climate Change. Journal for the Study of Religion, Nature and Culture* 6(4): 447-476.

Video: Nevada's Native American Tribes and Climate Change

<http://epscorspo.nevada.edu/native-american-indian-video/>

February 25: Indigenous Peoples and Protected Areas

Stevens, Stan

2014. Introduction and Indigenous Peoples, Biocultural Diversity, and Protected Areas. In S. Stevens (ed) *Indigenous Peoples, National Parks and Protected Areas*. Tucson: University of Arizona Press. Pp. 1-46.

*West, Paige, Jim Igoe, and Dan Brockington*

2006. *Parks and Peoples: The Social Impact of Protected Area. Annual Review of Anthropology* 35: 251-277.

*Debate from Conservation Biology* 2000 14(5):

*Schwartzman, S., D. Nepstad, and A. Moreira*

2000a *Rethinking Tropical Forest Conservation: Perils in Parks. Conservation Biology* 14(5):1351-1357.

*Terborgh, John*

2000 *The Fate of Tropical Forests: A Matter of Stewardship. Conservation Biology* 14(5):1358-1361.

*Redford, Kent, and Steve Sanderson*

2000 *Extracting Humans from Nature. Conservation Biology* 14(5):1362-1364.

*Colchester, Marcus*

2000 *Self Determination or Environmental Determinism for Indigenous Peoples in Tropical Forest Conservation. Conservation Biology* 14(5):1365-1367.

Chicchon, Avecita

2000 *Conservation Theory Meets Practice. Conservation Biology*  
14(5):1368-1369.

Schwartzman, S., D. Nepstad, and A. Moreira

2000b *Arguing Tropical Forest Conservation: People versus*  
*Parks. Conservation Biology* 14(5):1370-1374.

March 2: Traditional Ecological Knowledge and Western Science

Dove, Michael et al.

2009 Globalisation and the Construction of Western and Non-  
Western Knowledge. In P. Sillitoe (eds) *Local Science vs. Global*  
*Science*. New York: Berghahn Books. Pp. 129-154.

Nadasdy, Paul

1999 The Politics of TEK: Power and the Integration of  
Knowledge. *Arctic Anthropology* 36(2):1-18.

Rhoades, Robert E. and V. Nazarea

2009 *Forgotten Futures: Scientific Models vs. Local Visions of*  
*Land Use Change*. In P. Sillitoe (eds) *Local Science vs. Global*  
*Science*. New York: Berghahn Books. Pp. 231-256.

### **Project Presentations**

March 4: Project Presentations

March 9: Project Presentations

### **Short Essay 4 Due**

March 11: Project Presentations

March 16: No Class (Instructor Available)

March 18: **Final Project Due** (12:00 pm in Anthropology Baskets)

## COURSE SCHEDULE

Week	Day	Date	Month	Readings to be discussed, assignments due, etc.
<b>1</b>	M	5	January	Course Overview
	W	7		Read: Beteille; Childs and Delgado; Kuper; Asch et al; <i>Hames</i>
<b>2</b>	M	12		Read: Berkes (Chapter 2); Smith (Chapter 1); <i>Smith (Chapter 2)</i>
	W	14		Read: AAA Code of Ethics; Ethnobiology Society Code of Ethics; Declaration on the Rights of Indigenous Peoples; Free Prior and Informed Consent; <i>Harry and Kanehe</i>
<b>3</b>	M	19		No Class (MLK Day)
	W	21		Read: Berkes (Chapter 1); Berkes and Turner  Due: Short Essay 1
<b>4</b>	M	26		Read: Zent, <i>Berkes (Chapter 3)</i> ; <i>Spoon</i>
	W	28		Read: Berkes (Chapter 4); Garibaldi and Turner  Due: Project Proposal
<b>5</b>	M	2	February	Read: Berkes (Chapters 5-7)  (Select 1 chapter; graduate students read all 3)
	W	4		Read: Anderson; Turner et al.  Due: Short Essay 2
<b>6</b>	M	9		Read: Bird et al., <i>Spoon</i>
	W	11		Films: Embrace and Beyul—Sacred Hidden Valleys of the Himalaya  Read: Anderson; <i>Spoon</i>
<b>7</b>	M	16		Read: Berkes (Chapters 11); McCarter et al.

	W	18		Read: Olson; <i>Reyes-Garcia</i> Due: Short Essay 3
<b>8</b>	M	23		Read: Berkes (Chapter 8); Nijbroek; <i>Salick et al.</i> Video: Nevada's Native American Tribes and Climate Change
	W	25		Read: Stevens; <i>West et al.</i> ; <i>Conservation Biology 2000</i>
<b>9</b>	M	2	March	Read: Dove et al.; Nadasdy; <i>Rhoades and Nazarea</i>
	W	4		No Readings (Presentations)
<b>10</b>	M	9		No Readings (Presentations) Due: Short Essay 4
	W	11		No Readings (Presentations)
<b>11</b>	M	16		No Class: Instructor Available
	W	18		Due: Final Project (12:00 pm in Anthropology Department Baskets)

*Note: Undergraduates read literature in regular text; graduates read regular and italicized text (see class-by-class description)*