# NRRT 605 Course Outline, Fall 2023 Human Dimensions of Natural Resources Theory

Department of Human Dimensions of Natural Resources
Warner College of Natural Resources
Colorado State University

Dr. Tara Teel
Instructor
241 Forestry Building
491-7729
tara.teel@colostate.edu

Office Hours Tuesdays 1-2pm & by appointment

<u>Schedule</u>: The class meets Tuesdays 9:00-11:30am in Room 113 of the Conservation House (222 West Laurel Street). Course ID#: 67712, Section 001, 3 credits.

## I. COURSE DESCRIPTION

The purpose of this graduate-level course is to review social science concepts and research important to the management and conservation of natural resources. Through readings on social science theory and its application in a natural resources context, students will be exposed to current conservation issues and learn how those issues can be addressed through an understanding of human thought and behavior. Case studies will be presented and discussed in class in order to connect theoretical frameworks to on the ground management problems. The course will begin with an introduction to the human dimensions of natural resources field of study. This will be followed by an in-depth look at social psychology applications, and then by an examination of interdisciplinary approaches and contributions of other social science disciplines and applied fields to conservation and natural resource-related topics.

## II. COURSE OBJECTIVES

This course will review major concepts, theories, and disciplinary perspectives in human dimensions of natural resources. Through this course, students will:

- Understand the role and importance of human dimensions research in conservation and natural resource management
- Understand the role of theory in human dimensions research
- Become familiar with specific social science concepts and theories commonly applied in human dimensions
- Realize the varied contributions and approaches of different social science disciplines and applied fields to the human dimensions field

In addition to providing students with information in these areas, an outcome of the course may be to spark ideas for thesis or dissertation research.

<sup>\*</sup>Syllabus and course schedule subject to change at instructors' discretion.

#### III. COURSE MATERIALS

Various readings will be assigned for course topics. These readings are noted on the syllabus and will be made available to you on Canvas prior to the class session in which they will be discussed. Other resources related to course content (e.g., lecture notes for certain modules, additional background materials) will also be made available on Canvas. Canvas log-in page: <a href="https://canvas.colostate.edu/">https://canvas.colostate.edu/</a>.

## IV. COURSE POLICY/PROCEDURE & ADDITIONAL RESOURCES

## COVID Protocol

This course will adhere to CSU's mandates for the COVID-19 pandemic. See the following website for more information: <a href="https://covid.colostate.edu/">https://covid.colostate.edu/</a>. In the event that COVID-related circumstances require me to shift this course to online delivery, I will notify you immediately via email and, if necessary, provide a Zoom/MS Teams link for class sessions.

## Academic Integrity

This course will adhere to the CSU Academic Integrity Policy as found on the Student Responsibilities page of the CSU General Catalog and in the Student Conduct Code. At a minimum, violations will result in a grading penalty in this course and a report to the Office of the Student Resolution Center. See the following websites for more information: <a href="http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/#academic-integrity">http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/#academic-integrity</a>

https://resolutioncenter.colostate.edu/student-conduct-code/

## Student Accommodations

If you are a student who will need special accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from the CSU Student Disability Center may be required before any accommodation is provided: <a href="https://disabilitycenter.colostate.edu/">https://disabilitycenter.colostate.edu/</a>.

#### Attendance and Participation

Prompt attendance of class sessions is a requirement for this course. You are expected to do the readings and come to class prepared for discussion. If you need to miss a class, please let me know in advance. It is your responsibility to communicate with me and/or fellow classmates regarding announcements and course content that were covered during a missed class.

## Written Assignments

Written assignments completed outside of class must be typed and double-spaced and use American Psychological Association (APA, 7<sup>th</sup> Edition) style for formatting in-text citation of references and reference lists. I encourage you to take advantage of the University's writing center for assistance with written assignments. Details can be found at <a href="https://writingcenter.colostate.edu/">https://writingcenter.colostate.edu/</a>. Also see <a href="https://apastyle.apa.org/">https://apastyle.apa.org/</a> and <a href="https://owl.purdue.edu/">https://owl.purdue.edu/</a> for more details on APA formatting.

## Late Assignments, Makeup Work, and Extra Credit

All assignments are due (submit through Canvas) no later than the beginning of class on the designated date. Late assignments will be de-valued at 5% per day, including weekends, and will be assigned a zero after five days. If at any time you are concerned about your grade in this course, you are encouraged to communicate with me as soon as possible. Do not wait until the end of the semester if you are having problems with the class or assignments. There will be no extra credit offered in this course.

## CSU Library

For help with literature reviews and other related resources, you can contact the CSU Libraries Help Desk in person, by phone at (970) 491-1841, or online at: <a href="https://lib.colostate.edu/">https://lib.colostate.edu/</a>. For specific library resources available for the HDNR Department see: <a href="https://libguides.colostate.edu/human-dimensions/home">https://libguides.colostate.edu/human-dimensions/home</a>.

## Diversity and Inclusion / Classroom Climate

An important goal of mine is to foster and maintain an inclusive climate, wherein mutual respect is highly valued, and all students can feel comfortable sharing their views. It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students.

## Mental Health and Wellness

CSU is a community that cares. If you are struggling, you are not alone. CSU Health Network Counseling Services has trained professionals who can help. Your student fees provide access to a wide range of services to support student mental health and wellbeing. Visit <a href="https://health.colostate.edu/mhwb-resources/">https://health.colostate.edu/mhwb-resources/</a> for more information.

## Copyright

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites or sharing materials with those not registered in the class may violate both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission could face appropriate disciplinary or legal action.

## V. COURSE REQUIREMENTS & GRADING

Grades will be based on performance on the following:

- Thought/Reaction Papers: At various times throughout the semester, students will be
  asked to write a brief (2-3 pages, double-spaced) paper to demonstrate thinking about
  course topics. Papers (total of 5) will be developed outside of class, and due dates are
  noted in the syllabus.
- <u>Class Participation/Discussion</u>: Students are expected to complete the assigned readings and participate in class discussions. Students will also be asked to select a topic area relevant to the course and lead an in-class session on that topic area. Student-led sessions are noted in the syllabus, and additional information about content and expectations for these sessions will be provided in class.
- <u>Final Paper</u>: Students will write a paper on a particular "theoretical or conceptual domain" relevant to the course and to their research pursuits. This paper will provide an extensive literature review on the domain of interest, demonstrating how it has been applied and why it is important to understand in a conservation/natural resource-related context. Papers must be between 10 and 20 double-spaced pages (not including reference lists) and contain a minimum of 20 references (beyond any listed on the syllabus). More specific guidelines for the final paper, due **December 11**, will be provided in class.

Points for specific assignments:

Grading Summary	Percent of Grade	Total Points
Class Participation/Discussion	35%	35
Thought/Reaction Papers (5 @ 6 points each)	30%	30
Final Paper	<u>35%</u>	35
	100% Total	100

Grades will be based on the total points accumulated from requirements listed above. Instructor will use +/- Grading. Grades will be assigned as follows.

Letter Grade	Percentage %	Points
A+	97+	97+
Α	93-96	93-96
A-	90-92	90-92
B+	87-89	87-89
В	83-86	83-86
B-	80-82	80-82
C+	77-79	77-79
С	70-76	70-76
D	60-69	60-69
F	Less than 60	Less than 60

## VI. COURSE CONTENT & SCHEDULE\*

\*Note: The instructor reserves the right to change this schedule at any time during the semester. Changes to the schedule will be announced in class or communicated through email/Canvas.

# SECTION I:

## INTRODUCTION & OVERVIEW OF HUMAN DIMENSIONS OF NATURAL RESOURCES

## August 22<sup>nd</sup>

o Course Introduction & Review Expectations for Class Assignments

## August 29th

## O Human Dimensions of Natural Resources: An Introduction & Overview

Mascia, M. B., Brosius, J. P., Dobson, T. A., Forbes, B. C., Horowitz, L., McKean, M. A., & Turner, L. A. (2003). Conservation and the social sciences. *Conservation Biology*, 17(3), 649-650.

Sandbrook, C., Adams, W. M., Buscher, B., & Vira, B. (2013). Social research and biodiversity conservation. *Conservation Biology*, 27(6), 1487-1490.

Bennett, N. J., Roth, R., Klain, S. C., Chan, K. M. A., Christie, P., Clark, D. A., Cullman, G., Curran, D., Durbin, T. J., Epstein, G., Greenberg, A., Nelson, M. P., Sandlos, J., Stedman, R., Teel, T. L., Thomas, R. E. W., Verissimo, D., & Wyborn, C. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. *Biological Conservation*, 205, 93-108.

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 1)

Field, D. R., Brown, P. J., & Burdge, R. J. (2004). Coming in from the dark: The evolution of ISSRM and social science research in resource management. In M. J. Manfredo, J. J. Vaske, B. L. Bruyere, D. R. Field, & P. J. Brown (Eds.), Society and natural resources: A summary of knowledge (pp. 1-8). Jefferson, MO: Modern Litho.

Stankey, G. H., & McCool, S. F. (2004). Social sciences and natural resources management: An assessment of advances. In M. J. Manfredo, J. J. Vaske, B. L. Bruyere, D. R. Field, & P. J. Brown (Eds.), Society and natural resources: A summary of knowledge (pp. 21-34). Jefferson, MO: Modern Litho.

Ewert, A. W. (1996). Human dimensions research and natural resource management. In A. W. Ewert (Ed.), Natural resource management: The human dimension (pp. 5-12). Boulder, CO: Westview Press.

#### Additional Background (Not Required):

Niemiec, R. M., Gruby, R., Quartuch, M., Cavaliere, C. T., Teel, T. L., Crooks, K., Salerno, J., Solomon, J. N., Jones, K. W., Gavin, M., Lavoie, A., Stronza, A., Meth, L., Enrici, A., Lanter, K., Browne, C., Proctor, J., & Manfredo, M. (2021). Integrating social science into conservation planning. *Biological Conservation*, 262, 109298.

Bennett, N. J., Roth, R., Klain, S. C., Chan, K. M. A., Clark, D. A., Cullman, G., Epstein, G., Nelson, M. P., Stedman, R., Teel, T. L., Thomas, R. E. W., Wyborn, C., Curran, D., Greenberg, A., Sandlos, J., & Verissimo, D. (2017). Mainstreaming the social sciences in conservation. *Conservation Biology*, 31(1), 56-66.

Holmes, G., Carruthers-Jones, J., Huggan, G., de Smalen, E. R., Ritson, K., & Simkova, P. (2021). Mainstreaming the humanities in conservation. *Conservation Biology*, 36, e13824.

Teel, T. L., Anderson, C. B., Burgman, M. A., Cinner, J., Clark, D., Estevez, R. A., Jones, J. P. G., McClanahan, T. R., Reed, M. S., Sandbrook, C., & St. John, F. A. V. (2018). Publishing social science research in *Conservation Biology* to move beyond biology. *Conservation Biology*, 32(1), 6-8.

Sexton, N. R., Leong, K. M., Milley, B. J., Clarke, M. M., Teel, T. L., Chase, M. A., & Dietsch, A. M. (2013). The state of human dimensions capacity for natural resource management: Needs, knowledge, and resources. *The George Wright Forum*, 30(2), 142-153.

Lowe, P., Whitman, G., & Phillipson, J. (2009). Ecology and the social sciences. *Journal of Applied Ecology*, 46, 297-305.

Adams, W. M. (2007). Thinking like a human: social science and the two cultures problem. *Oryx* 41(3), 1-2.

Fox, H. (2006). Perceived barriers to integrating social science and conservation. *Conservation Biology*, 20(6), 1817-1820.

Bennett, N. J., & Roth, R. (eds.) (2015). The conservation social sciences: what? how? and why? Vancouver, BC: Canadian Wildlife Federation and Institute for Resources, Environment and Sustainability, University of British Columbia.

Dayer, A. A., Barnes, J. C., Dietsch, A. M., Keating, J. M., & Naves, L. C. (2020). Advancing scientific knowledge and conservation of birds through inclusion of conservation social sciences in the American Ornithological Society. *Ornithological Applications*, 122, 1-6.

## September 5<sup>th</sup>

o Human Dimensions of Natural Resources: An Introduction & Overview (Cont'd)

See Readings for 8/29



#### UNDERSTANDING HUMAN THOUGHT & BEHAVIOR - A SOCIAL PSYCHOLOGY APPROACH

## September 12<sup>th</sup>

\*DUE: THOUGHT PAPER 1 - The Human Dimensions of Natural Resources Field of Study

Overview of a (Social) Psychology Approach in Conservation & Natural Resources;
 Introduction to Attitude/Behavior Theory

Clayton, S. D., & Saunders, C. D. (2012). Introduction: Environmental and conservation psychology. In S. D. Clayton (Ed.), The Oxford handbook of environmental and conservation psychology (pp. 1-7). New York, NY: Oxford University Press.

Teel, T. L., Dietsch, A. M., & Manfredo, M. J. (2015). A (social) psychology approach in conservation. In Bennett, N. J., & Roth, R. (eds.), The conservation social sciences: what? how? and why? Vancouver, BC: Canadian Wildlife Federation and Institute for Resources, Environment and Sustainability, University of British Columbia.

Dietsch, A. M., Wallen, K., E., Clayton, S., Kretser, H. E., Kyle, G. T., Ma, Z., & Vercammen, A. (2020). Introduction: New directions in conservation psychology at a critical time. *Conservation Biology*, 34(6), 1335-1338.

Wallen, K. E., & Landon, A. C. (2020). Systematic map of conservation psychology. *Conservation Biology*, 34(6), 1339-1352.

#### o Attitudes

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 4)

## Additional Background (Not Required):

Gifford, R. (2014). Environmental psychology matters. *Annual Review of Psychology, 65*, 541-579. St. John, F. A. V., Edwards-Jones, G., & Jones, J. P. G. (2010). Conservation and human behavior: Lessons from social psychology. *Wildlife Research, 37*, 658-667.

St. John, F. A. V., Gareth, E., & Jones, J. P. G. (2010). Conservation and human behaviour: Lessons from social psychology. Wildlife Research, 37, 658-667.

Fishbein, M., & Ajzen, I. (2010). Predicting and changing behavior: The reasoned action approach. New York, NY: Taylor & Francis.

Manfredo, M. J., Teel, T. L., & Bright, A. D. (2004). Application of the concepts of values and attitudes in human dimensions of natural resources research. In M. J. Manfredo, J. J. Vaske, B. L. Bruyere, D. R. Field, & P. J. Brown (Eds.), *Society and natural resources: A summary of knowledge* (pp. 271-282). Jefferson, MO: Modern Litho.

#### Values

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 6)

Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4, 255-277.

## Case Study: "America's Wildlife Values"

Teel, T. L., & Manfredo, M. J. (2009). Understanding the diversity of public interests in wildlife conservation. *Conservation Biology*, 24(1), 128-139.

Manfredo, M. J., Teel, T. L., Don Carlos, A. W., Sullivan, L., Bright, A. D., Dietsch, A. M., Bruskotter, J., & Fulton, D. (2020). The changing socio-cultural context of wildlife conservation. *Conservation Biology*, 34(6), 1549-1559.

## Additional Background (Not Required):

de Groot, J. I. M., & Steg, L. (2008). Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and Behavior*, 40(3), 330-354.

Ives, C. D., & Kendal, D. (2014). The role of social values in the management of ecological systems. Journal of Environmental Management, 144, 67-72.

Jones, N. A., Shaw, S., Ross, H., Witt, K., & Pinner, B. (2016). The study of human values in understanding and managing social-ecological systems. *Ecology and Society*, 21(1), 15.

Manfredo, M. J., Bruskotter, J. T., Teel, T. L., Fulton, D., Schwartz, S. H., Arlinghaus, R., Oishi, S., Uskul, A. K., Redford, K., Kitayama, S., & Sullivan, L. (2017). Why social values cannot be changed for the sake of conservation. *Conservation Biology*, 31 (4), 772-780.

Manfredo, M. J., Teel, T. L., Berl, R. E. W., Bruskotter, J. T., & Kitayama, S. (2021). Social value shift in favour of biodiversity conservation in the U.S. *Nature Sustainability*, 4, 323-330.

Manfredo, M. J., Berl, R. E. W., Teel, T. L., & Bruskotter, J. T. (2021). Bringing social values to wildlife conservation decisions. Frontiers in Ecology and the Environment.

Laverty, T. M., Teel, T. L., Thomas, R. E. W., Gawusab, A. A., & Berger, J. (2019). Using pastoral ideology to understand human-wildlife coexistence in arid agricultural landscapes. *Conservation Science and Practice*, e35.

## \*DUE: FINAL PAPER & STUDENT-LED SESSION TOPICS

#### Social Influence & Conservation Behavior (Guest Speaker: Veronica Champine)

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 5)

Abrahamse, W., & Steg, L. (2013). Social influence approaches to encourage resource conservation: A meta-analysis. Global Environmental Change, 23, 1773-1785.

Farrow, K., Grolleau, G., & Ibanez, L. (2017). Social norms and pro-environmental behavior: A review of the evidence. *Ecological Economics*, 140, 1-13.

Niemiec, R. M., Champine, V., Vaske, J. J., & Mertens, A. (2020). Does the impact of norms vary by type of norm and type of conservation behavior? A meta-analysis. Society & Natural Resources, 33(8), 1024-1040.

## October 3rd

## \*DUE: THOUGHT PAPER 2 - Lessons for Attitude-Behavior Change

## o Attitude/Behavior Change

Clayton, S., Litchfield, C., & Geller, S. E. (2013). Psychological science, conservation, and environmental sustainability. Frontiers in Ecology and the Environment, 11(7), 377-382.

Schultz, P. W. (2011). Conservation means behavior. Conservation Biology, 25(6), 1080-1083.

McKenzie-Mohr, D., Lee, N. R., Schultz, P. W., & Kotler, P. (2012). Social marketing to protect the environment: What works. Thousand Oaks, CA: Sage Publications. (Chapter 1).

## Additional Background (Not Required):

Walton, A. A., Nageotte, N. L., Heimlich, J. E., & Threadgill, A. V. (2022). Facilitating behavior change: Introducing the Transtheoretical Model of Behavior Change as a conservation psychology framework and tool for practitioners. *Zoo Biology*, 41, 386-397.

Walton, T. N., & Jones, R. E. (2022). An information-theoretic approach to modeling the major drivers of pro-environmental behavior. *Sustainability*, 14, 14668.

Nielsen, K. S., et al. (2021). Biodiversity conservation as a promising frontier for behavioural science. Nature Human Behaviour, 5, 550-556.

Selinske, M. J., et al. (2020). Identifying and prioritizing human behaviors that benefit biodiversity. *Conservation Science and Practice*, 2, e249.

Akerlof, K., & Kennedy, C. (2013). Nudging toward a healthy natural environment: How behavioral change research can inform conservation. Fairfax, VA: George Mason University.

Ardoin, N., Heimlich, J., Braus, J., & Merrick, C. (2013). Influencing conservation action: What research says about environmental literacy, behavior, and conservation results. New York, NY: National Audubon Society.

Verissimo, D. (Ed.) (2013). Behaviour change. Special issue in Conservation Evidence, 10, 29-66.

Cialdini, R. B. (2003). Crafting normative messages to protect the environment. Current Directions in Psychological Science, 12, 105-109.

Schweizer, S., Thompson, J., Teel, T., & Bruyere, B. (2009). Strategies for communicating about climate change impacts on public lands. *Science Communication*, 31(2), 266-274.

Teel, T. L., Bright, A. D., Manfredo, M. J., & Brooks, J. J. (2006). Evidence of biased processing of natural resource-related information: A study of attitudes toward drilling for oil in the Arctic National Wildlife Refuge. Society and Natural Resources, 19(5).

Crompton, T. (2010). Common cause: The case for working with our cultural values. Surrey, UK: WWF-UK. (also see <a href="http://valuesandframes.org/">http://valuesandframes.org/</a>)

Conservation on a human scale: The RARE approach. (brochure materials posted, also see <a href="https://rare.org/">https://rare.org/</a>)

Abrams, K. M., Leong, K., Melena, S., & Teel, T. L. (2020). Encouraging safe wildlife viewing in national parks: Effects of a communication campaign on visitors' behavior. *Environmental Communication*, 14(2), 255-270.

Jones, M. S., Teel, T. L., Solomon, J., & Weiss, J. (2021). Evolving systems of pro-environmental behavior among wildscape gardeners. Landscape and Urban Planning, 207, 104018.

## October 10<sup>th</sup>

\*DUE: THOUGHT PAPER 3 - Biophilia

\*MID-SEMESTER COURSE EVALUATION

## A Biological Basis for Human Behavior?

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 2)

Wilson, E. O. (1993). Biophilia and the conservation ethic. In S. R. Kellert, & E. O. Wilson (Eds.), The Biophilia Hypothesis (pp. 31-41). Washington, DC: Island Press.

Katcher, A. & Wilkins, G. (1993). A dialogue with animals: Its nature and culture. In S. R. Kellert, & E. O. Wilson (Eds.), The Biophilia Hypothesis (pp. 173-197). Washington, DC: Island Press.

## Emotions

Manfredo, M. J. (2008). Who cares about wildlife: Social science concepts for exploring human-wildlife relationships and conservation issues. New York: Springer Press. (Chapter 3)

## Additional Background (Not Required):

Kals, E., & Muller, M. M. (2012). Emotions and environment. In S. D. Clayton (Ed.), The Oxford handbook of environmental and conservation psychology (pp. 128-147). New York, NY: Oxford University Press.

# SECTION III:

MORE ON INTERDISCIPLINARY APPROACHES & CONTRIBUTIONS OF DIFFERENT SOCIAL SCIENCE DISCIPLINES / APPLIED FIELDS

## October 17th

\*DUE: FINAL PAPER "PROBLEM" STATEMENT & PURPOSE \*DUE: THOUGHT PAPER 4 - Nature & Human Wellbeing

- More on the Contributions of Different Social Science Disciplines/Applied Fields: A Brief Overview
- Nature & Human Wellbeing (Guest Speakers: Drs. Sarah Walker & Sara LoTemplio)

\*Readings TBD

## October 24th

 Case Study Applying Social Science to Sustainable Tourism Development in the Protected Area Management Context (Guest Speaker: Dr. Stuart Cottrell)

Cottrell, S., & Raadik-Cottrell, J. (2013). The protected area network of parks: Monitoring the balance between nature conservation and sustainable tourism. In K. S. Bricker, R. Black, & S. Cottrell (Eds.), Sustainable Tourism & the Millenium Development Goals: Effecting Positive Change (pp. 307-325). Burlington, MA: Jones & Bartlett Learning.

Puhakka, R., Cottrell, S. P., & Siikamaki, P. (2014). Sustainability perspectives on Oulanka National Park, Finland: Mixed methods in tourism research. *Journal of Sustainable Tourism*, 22(3), 480-505.

 Case Study Applying Social Science to Understand Adaptation to Social-Ecological Change in Kenya (Guest Speaker: Dr. Brett Bruyere)

Van Anda, R., Bruyere, B. L., Salerno, J., Lengima, A., Alinta, V., & Yasin, A. (2021). Changes in livelihood aspirations among formally educated pastoral youth in northern Kenya. *Children, Youth and Environments*, 31(2), 34-53.

Walker, S. E., Bruyere, B. L., Grady, M., McHenry, A., Frickman, C., Davis, W., & Unity Women's Village. (2020). Taking stories: The ethics of cross-cultural community conservation research in Samburu, Kenya. *Gateways: International Journal of Community Research and Engagement, 13*(1).

 Integrating Systems Perspectives: Social-Ecological Systems Science (Guest Speaker: Dr. Jonathan Salerno)

Liu, J., et al. (2007). Coupled human and natural systems. Ambio, 36(8), 639-649.

Liu, J., et al. (2018). Nexus approaches to global sustainable development. *Nature Sustainability, 1*(9), 466-476.

## Additional Background (Not Required):

Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of Sciences*, 104(39), 15181-15187.

Mahajan, S. L., Glew, L., Rieder, E., Ahmadia, G., Darling, E., Fox, H. E., Mascia, M. B., & McKinnon, M. (2019). Systems thinking for planning and evaluating conservation interventions. *Conservation Science and Practice*, 1, e44.

November 7th

\*DUE: FINAL PAPER OUTLINE

\*Student-Led Sessions\*

\*Readings TBD

November 14<sup>th</sup>

\*Student-Led Sessions\*

\*Readings TBD

o Feminist Political Ecology & Indigenous Perspectives (Guest Speaker: Dr. Anna Lavoie)

Mollett, S. (2017). Environmental struggles are feminist struggles: Feminist political ecology as development critique. In, A. M., Oberhauser et al. (Eds.), Feminist Spaces: Gender and Geography in a Global Context (pp. 155-187). Taylor & Francis.

Lavoie, A., Lee, J., Sparks, K., Hoseth, G., & Wise, S. (2019). Engaging with women's knowledge in Bristol Bay Fisheries through oral history and participatory ethnography. Fisheries, 44(7), 331-337.

Week of November 20th

\*\*FALL RECESS - NO CLASSES THIS WEEK\*\*

November 28<sup>th</sup>

\*DUE: THOUGHT PAPER 5 - 100 Questions Exercise

o Environmental (Climate) Justice & Indigenous Rights (Guest Speaker: Dr. Joel Correia)

\*Readings TBD

## \*FINAL COURSE EVALUATION

- o Bringing It All Together: Course Wrap-Up
- o New Directions in Conservation Social Science Research

Week of December 11<sup>th</sup> (FINAL EXAMS WEEK)
\*FINAL PAPER DUE MONDAY, DECEMBER 11, 5:00 PM