

CCS/NRM 656
Sustainable Livelihoods and Community Wellbeing
Center for Cross-Cultural Studies
Indigenous Studies Graduate Programs
Fall 2025

Instructor: Michael Koskey (please call me Mike)
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Office Hours: Tuesday, Wednesday, Thursday 9-12, or by appointment

Thursdays 5:15-8:15
8/28 – 12/4 (12/11)

In-class: Gruening 306
Zoom: link will be provided

Pre-requisite: Graduate standing or approval of the instructor. Upper division undergraduates from any of the social and natural sciences are also encouraged to enroll.

Course Description: In this course we will review the basic principles captured within the notion of sustainability, and we'll look at the cultural practices and individual behaviors that enhance or degrade sustainable livelihoods and community wellbeing. Emphasis is on understanding the historical context of ideas about sustainability, on understanding the nature and magnitude of the social, economic and ecological dimensions of contemporary change, and the "best practices" currently in place for communities to respond effectively to change. Case studies will be used from around the world and the framework is comparative, cross-cultural, and geographic; the primary focus of the course, however, is on understanding problems, impacts and design solutions specific to high latitudes.

Requirements and Expectations: This is a graduate seminar, with emphasis on literature review, discussion and critical evaluation of the literature, problem formulation and analysis. You are expected to have read all of the assigned material each week, and to be prepared for each seminar. Final grades are based on completion of all assignments, including three problem sets, personal contributions to weekly discussions, oral presentations, and the final research paper.

Problem sets are very specific, are defined by the instructor, and are typically no more than 3-4 pages in length for your written response; a problem is defined—one related to some aspect of community sustainability—and you are expected to find and prepare a design solution. The research paper is a formal paper, one that approximates a paper prepared for publication, and the topic is yours to choose. Length varies depending upon problem chosen, but on balance the final research paper should be between 10 and 15 pages. The specifications and expectations for the problem sets and final research paper will be discussed at the beginning of the semester.

Course Goals & Learning Objectives

1. To understand the frameworks and design solutions as applied to contemporary social and ecological problems that urban and rural communities must confront if they are to be sustainable.
2. To explore the multiple ways that communities are responding effectively or ineffectively to global, regional and local change; the framework is cross-cultural and comparative.

3. To develop, evaluate and apply new conceptual approaches, models and methods for evaluating sustainability and resilience, approaches that build constructively from the integrated assessments that have been used in the past.
4. To learn and apply a corpus of qualitative and quantitative skills to “real world” social, economic and ecological problems, skills that are interdisciplinary in their historical development, that are applicable to multiple temporal and spatial scales and varying levels of sociopolitical organization and integration, and that are appropriate for the analysis of sustainable livelihoods and community wellbeing.

Class Expectations: While an effort is made to adhere to the class schedule, it may shift in response to student interests and the availability of guest speakers. You will be made aware of any changes as they occur. Assigned readings should be read before class date, so that everyone will gain the most from class discussions. As graduate students, you are expected to become an active partner in the learning process. You should ask questions, read critically, consider new ideas, and challenge assumptions.

To make in-class contributions, you will need to attend class on time, read the assignments, and be fully prepared to participate in class discussions. Written assignments must be typed, double-spaced, and proofread. Clarity, brevity and expression of your own ideas in your own words are expected. Written assignments are graded both on content and on grammar, punctuation, and format. They must reflect assigned readings, class discussions and most importantly, original thinking.

As a required part of your class participation, you will need to take an active role in discussion about the readings and to pose critical and thoughtful questions about the issues being presented. You may also occasionally be asked to give updates on your research as it progresses. You will be given an opportunity to present your research to the class near the end of the semester.

Course Readings: Please see the schedule at the end of this syllabus for the readings for this class. In addition to these readings will be others connected with the Problem Set assignments. Please note that all required readings for this course will be provided by the instructor.

Summary of Coursework:

- | | |
|-------------------------|--|
| 1. Reading Reactions | 4 (presented according to schedule devised in class) |
| 2. Problem Sets | 3 (scheduled throughout the semester) |
| 3. Paper & Presentation | 1 (due at end of semester); 1 presentation |

Reading Discussions: Each student will lead four group discussions based on the readings, depending on the number of registered students. The reading presentations will include a 2-to-4-page summary sheet e-mailed to all the students and instructor, and a summary presentation in class (5-10 minutes) followed by a class discussion (5-10 minutes).

Problem Sets: Problem sets are very specific, are defined by the instructor, and are typically no more than 3-5 pages in length for your written response; a problem is defined—one related to some aspect of community sustainability—and you are expected to find and prepare a design solution.

Position Paper & Presentation: Each student will write a project paper that incorporates understanding of the role of academic research and local knowledge in developing respectful, culturally informed, cooperative research. This paper should ideally cover a topic that is related/helpful to your MA/MS/PhD thesis/project, and that addresses some aspect of community wellbeing and sustainability. Each student will present in class a summary of their research near the end of the semester. The 20-minute presentation will be followed by a 10-minute discussion. The paper itself should be 10-15 pages in length, depending on the nature of the project (double-spaced, at 10-12-point font).

Writing Expectations

All written assignments must be typed, double-spaced, 10-12-point font, and proofread for spelling and grammar errors. It is important to write according to established conventions so that you can most effectively and accurately communicate your ideas to others. Clarity, brevity, and expression of your own ideas in your own words are expected. Written assignments are graded primarily on content, but also on grammar and spelling, all of which is necessary when writing a potential paper for publication. It can be possible to develop publishable papers through your work in this class. Finally, written assignments must reflect knowledge gained from the assigned readings, class discussions, and most importantly, original thinking.

Summary of Grading Criteria for this Course

“A” work: UNIQUE

(1) Responds fully to the assignment, (2) expresses its purpose clearly and persuasively, (3) is directed toward and meets the needs of a defined audience, (4) begins and ends effectively, (5) provides adequate supporting arguments, evidence, examples, and details, (6) Is well organized and unified, (7) uses appropriate, direct language, (8) correctly acknowledges and documents sources, (9) is free of errors in grammar, punctuations, word choice, spelling, and format, and (10) maintains a level of excellence throughout, and shows originality and creativity in realizing (1) through (7).

“B” work: UNCOMMON

Realizes (1) through (9) fully and completely and demonstrates overall excellence, but shows little originality or creativity.

“C” work: COMMON

Realizes (1) through (9) adequately and demonstrates overall competence, but contains a few, relatively minor errors or flaws. A “C” paper may show creativity and originality, but those qualities don’t make up for poor or careless writing. A “C” paper usually looks and reads like a next-to-final draft.

“D” work: Fails to realize some elements of (1) through (9) adequately and contains several, relatively serious errors or flaws, or many minor ones. A “D” paper often looks and reads like a first or second draft.

“F” work: Fails to realize several elements of (1) through (9) adequately and contains many serious errors or flaws, and usually many minor ones, as well. An “F” paper usually looks and reads like an incomplete draft.

Overall Grading will be as follows:

Class Participation and Attendance	25%
Reading Discussions (4 total)	25%
Problem Set Papers (3 total)	25%
<u>Semester Position Paper & Presentation w/ accompanying in-class discussion</u>	<u>25%</u>
	100% total

Grading Scale		
A + : 98 -100 %	A : 93-97 %	A - : 90-92 %
B + : 87-89 %	B : 83-86%	B - : 80-82 %
C + : 77-79 %	C : 73-76 %	C - : 70-72 %
D + : 67-69 %	D : 63-66 %	D - : 60-62 %
F : below 60%		

Support Services

Veteran and Military Services <http://www.uaf.edu/veterans/>

Academic Advising Center 907-474-6396 <http://www.uaf.edu/advising>

UAF Writing Center 907-474-5314, FAX: 1-800-478-5246 <http://www.uaf.edu/english/writingcenter>

Rasmuson Library Off-Campus Service 1-800-478-5348 <http://www.uaf.edu/library/offcampus>

Full text articles on-line: <http://lexicon.ci.anchorage.ak.us/databasesforalaskans/home.html>

Plagiarism Policy

High ethical standards are essential for maintaining credibility in this field. Every course taught at UAF seeks to maintain these standards, starting with an emphasis on producing original and factual work. If you cite or quote from someone else's work, you must include a proper citation using an established style sheet. Plagiarism is defined as appropriating passages or ideas from another person's work and using them as one's own. Neither plagiarism nor fabrication will be tolerated. Any student found to have plagiarized or fabricated statements will receive, at a minimum, an automatic "F" for the class. Further action, such as expulsion, will also be considered. The UAF Code of Conduct can be found online at: http://www.uaf.edu/catalog/current/academics/regs3.html#Student_Conduct

AI Tools sand Plagiarism

Use of an AI Generator such as ChatGPT, iA Writer, MidJourney, DaLL-E, etc. is explicitly prohibited for all assignments. The content generated from AI tools is based on previously published materials and does not reflect your own critical or creative ideas, composition, or work and will therefore be treated as plagiarism. In addition, information derived from AI tools is often incomplete or inaccurate. It is imperative that all work submitted should be your own. Any assignment that is found to have been plagiarized or to have used unauthorized AI tools will receive a zero and be reported for academic misconduct (AI syllabus statement adapted from Middle Tennessee State University).

COVID-19 statement: Students should keep up-to-date on the university's policies, practices, and mandates related to COVID-19 by regularly checking this website:

<https://sites.google.com/alaska.edu/coronavirus/uaf?authuser=0>

Student protections statement: UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: <https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/>. Disability services statement: I will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities.

ASUAF advocacy statement: The Associated Students of the University of Alaska Fairbanks, the student government of UAF, offers advocacy services to students who feel they are facing issues with staff, faculty, and/or other students specifically if these issues are hindering the ability of the student to succeed in their academics or go about their lives at the university. Students who wish to utilize these services can contact the Student Advocacy Director by visiting the ASUAF office or emailing asuaf.office@alaska.edu.

Student Academic Support:

Speaking Center 907-474-5470, uaf-speakingcenter@alaska.edu , Gruening 507
Writing Center 907-474-5314, uaf-writing-center@alaska.edu , Gruening 8th floor
Rasmuson Library Off-Campus Service 1-800-478-5348, <https://library.uaf.edu/home>
Academic Advising Center 907-474-6396, <http://www.uaf.edu/advising>
Veteran and Military Services <http://www.uaf.edu/veterans/>
The Debbie Moses Learning Center at CTC 907-455-2860, 604 Barnette St, Room 120,
<https://www.ctc.uaf.edu/student-services/student-success-center/>

Student Resources:

Disability Services (907-474-5655, uaf-disability-services@alaska.edu , Whitaker 208)
Student Health & Counseling [6 free counseling sessions] (907-474-7043,
<https://www.uaf.edu/chc/appointments.php>, Gruening 215)
Center for Student Rights and Responsibilities (907-474-7317, uaf-studentrights@alaska.edu , Eielson
110)
Associated Students of the University of Alaska Fairbanks (ASUAF) or ASUAF Student Government
(907-474-7355, asuaf.office@alaska.edu , Wood Center 119)

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UAF Department of Equity and Compliance
1692 Tok Lane, 3rd floor, Constitution Hall, Fairbanks, AK 99775
907-474-7300
uaf-deo@alaska.edu

Course Etiquette

CXCS faculty, staff, and students work closely with communities and their partners. The First Alaskans Institute (FAI) is one of the many organizations whose focus includes Indigenous-led initiatives which CXCS emulates in research and instruction. FAI formalized a set of agreements (<https://firstalaskans.org/wp-content/uploads/2016/10/FAI-AGREEMENTS-POSTER.pdf>) which CXCS has adopted for all our classes and meetings.

Respect

The rules for respect are simple: anyone may talk about anything that they wish to; the speaker is not to be interrupted, questioned or judged; one may pass on the privilege of speaking if uncomfortable to another; any personal or otherwise sensitive information given and heard never goes beyond the class.

Class & Reading Schedule

The following is the listing of readings for the class for the listed date, along with general class topics. These texts should read before the scheduled class, since they will constitute an important focus of in-class discussion. A few readings, and possibly a guest speaker, may be added as I discover relevant ones during the semester. Please remember, class attendance is required, and repeated absences will affect your grade.

August 28th

Week 1

1. INTRODUCTIONS

2. BASICS OF CULTURAL, SUSTAINABILITY, & WELLBEING STUDIES

- [Robards, M., Alessa, A.](#) (2011). Timescapes of Community Resilience and Vulnerability in the Circumpolar North. *Arctic* 57 (4): 415-427.

September 4th

Week 2

1. INTRODUCTION TO CULTURAL & CROSS-CULTURAL RESEARCH

2. BACKGROUND, LIVELIHOOD, AND PLACE-BASED DESIGN

- [White Jr., L.](#), (1967). The historical roots of our ecological crisis. *Science* 155(3767): 1203-1207.—[available](#)
- [Kates, R., Clark, W.C., Corell, R., Hall, J.M., Jaeger, C.C., Lowe, I., McCarthy, J.J., et al.](#) (2001). Sustainability Science. *Science*, 292(5517), 641-642, together with:
- [Kates, R.](#) (2011). What Kind of a Science is Sustainability Science? *PNAS* 108(49): 19449-19450.—[available](#)
- [Morrison, A., Doussineau, M.](#), (2019). Regional innovation governance and place-based policies: design, implementation and implications. *Regional Studies, Regional Science* 6(1): 101-116.—[available](#)
- [Broesch, T., et al.](#) (2020). Navigating cross-cultural research: methodological and ethical considerations. *Proceedings of the Royal Society, B* 287: 20201245.—[available](#)

September 11th

Week 3

1. INTRODUCTION TO SUSTAINABILITY & WELLNESS

2. CARRYING CAPACITY, IMPACT, THE COMMONS, AND OTHER CULTURAL CONCEPTS

- [Hardin, G.](#) (1968). The Tragedy of the Commons. *Science* 162(3859) 1243-1248.—[available](#)
- [Toman, M.](#) (1992). The difficulty in defining sustainability. *Resources*, 106, 3-6.—[available](#)
- [Sayre, N.](#) (2008). The Genesis, History, and Limits of Carrying Capacity. *Annals of the Association of American Geographers*, 98(1), 120-134.—[available](#)
- [Viscogliosi, C.](#) (2020). Importance of Indigenous elders' contributions to individual and community wellness: results from a scoping review on social participation and intergenerational solidarity. *Canadian Journal of Public Health*, 111, 667-681.—[available](#)

September 18th

Week 4

1. THE HUMAN

2. POPULATION AND POPULATION GROWTH

- [Holdren, J.P.](#) (1991). Population and the energy problem. *Population and Environment*, 12(3), 231-255.—[available](#)
- [Hopfenberg, R., & Pimentel, D.](#) (2001). Human Population Numbers as a Function of Food Supply. *Environment, Development and Sustainability*, 3(1), 1-15.—[available](#)
- [Rahnema, M.](#) (2002). A Different Look at the “Population Problem.” *Population & Environment*, 24(1), 97-104.—[available](#)
- [Hamilton, L.C. & Mitiguy, A.M.](#) (2009). Visualizing Population Dynamics of Alaska’s Arctic Communities. *Arctic*, 62(4), 393-398.—[available](#)

Position Paper summaries due

September 25th

Week 5

1. SUSTAINABILITY SCIENCE

2. OUR COMMUNITIES AND THE ENVIRONMENT

3. CLIMATE CHANGE AND GLOBAL ENVIRONMENTAL CHANGE

- [De Fries, R., Asner, G., and J. Foley.](#) (2006). A glimpse out the window: What landscapes reveal about livelihoods, land-use, and environmental consequences. *Environment* 48(8): 22-36.—[available](#)
- [Lynch, A., & Brunner, R.](#) (2007). Context and climate change: an integrated assessment for Barrow, Alaska. *Climatic Change*, 82, 93-111.—[available](#)
- [Marino, E.](#) (2009). Immanent Threats, Impossible Moves, and Unlikely Prestige: Understanding the Struggle for Local Control as a Means towards Sustainability. In A. Oliver-Smith & X. Shen (Eds.), *Linking Environmental Change, Migration & Social Vulnerability* (pp. 42-50). Bonn, Germany: UNU Institute for Environment and Human Security.—[available](#)
- [Latulippe, N., & Klenk, N.](#) (2020). Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current Opinion in Environmental Sustainability*, 42: 7-14.—[available](#)

October 2nd

Week 6

1. OUR COMMUNITIES AND SOCIOECONOMIC CHANGE

2. INFRASTRUCTURE, EMPLOYMENT, DEMOGRAPHICS, EDUCATION

- [Ribova, L.](#) (2000). Individual and Community Wellbeing. The Arctic, Stefansson Arctic Institute, Akureyri, Iceland.—[available](#)
- [Barnhardt, R., & Kawagley, A.O.](#) (2004). Culture, Chaos and Complexity: Catalysts for Change in Indigenous Education. *Cultural Survival Quarterly*, 27(4), 59-64.—[available](#)
- [Huskey, L., Berman, M., & Hill, A.](#) (2004). Leaving home, returning home: Migration as a labor market choice for Alaska Natives. *Annals of Regional Science*, 38(1), 75-92.—[available](#)
- [Meadow, A., Meek, C., & McNeeley, S.](#) (2009). Towards Integrative Planning for Climate Change Impacts on Rural-Urban Migration in Interior Alaska: A Role for Anthropological and Interdisciplinary Perspectives. *Alaska Journal of Anthropology*, 7(1), 57-69.—[available](#)

Problem Set 1 due

October 9th

Week 7

1. SUSTAINABILITY AND DEVELOPMENT

2. HEALTH, RISK, AND ENVIRONMENTAL JUSTICE

- [Krieger, N.](#) (2005). Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology and Community Health*, 59(5), 350-355.—*available*
- [Checker, M.](#) (2007). "But I Know it's True:" Environmental Risk Assessment, Justice, and Anthropology. *Human Organization*, 66(2), 112-124. [w/ Uteley (Checker addendum), and short film: <http://www.hydeparkfilm.com/>]—*available*
- [Poepoe, K. K., Bartram, P. K., & Friedlander, A. M.](#) (2007). The use of traditional knowledge in the contemporary management of a Hawaiian community's marine resources. In Haggan, N., Neis, B., Baird, I. Fishers' knowledge in fisheries science and management. p. 119-143. Paris: UNESCO [full Neis & Baird volume located in Week 10 reading folder].—*available*
- [Wernham, A.](#) (2007). Iñupiat Health and Proposed Oil Development: Results of the First Integrated Health Impact Assessment/Environmental Impact Statement for Proposed Oil Development on Alaska's North Slope. *EcoHealth*, 4(4), 500-513.—*available*

October 16th

Week 8

FOOD SYSTEMS, FOOD PRODUCTION, SUBSISTENCE, FOOD SECURITY, NUTRITION AND HEALTH

- [Kloppenborg, Hendrickson, J., & Stevenson, G.](#) (1996). Coming into the Foodshed. *Agriculture and Human Values*, 13(3), 33-42.—*available*
- [Sundkvist, A., Milestad, R., & Jansson, A.](#) (2005). On the Importance of Tightening Feedback Loops for Sustainable Development of Food Systems. *Food Policy*, 30, 2 24- 239.—*available*
- [Loring, P. and Gerlach, S.](#) (2009). Food, Culture, and Human Health in Alaska: An Integrative Approach. *Environmental Science and Policy* 1 (4): 466-478.—*available*
- [Fieldhouse, P., and Thompson, S.](#) (2012). Tackling Food Security Issues in Indigenous Communities in Canada: The Manitoba Experience. *Nutrition & Dietetics* 69: 217-221.—*available*

Problem Set 2 due

October 23rd

Week 9

1. COMMUNITIES AND THE ECOSYSTEM

2. HYDROLOGICAL CHANGE, WATER AVAILABILITY, SAFETY, AND HEALTH

- [Gleick, P.](#) (2003). Water Use. *Annual Review of Environment and Resources*. 28(1): 275-314.—*available*
- [Postel, S.](#) (2005). From the Headwaters to the Sea: The Critical Need to Protect Freshwater Ecosystems. *Environment* 47(10): 8-21.—*available*
- [Thomas, T.K., Ritter, T., Bruden, D., Bruce, M., Byrd, K., Goldberger, R., Dobson, J., Hickel, K., Smith, J.](#) (2016). Impact of providing in-home water service on the rates of infectious diseases: results from four communities in Western Alaska. *Journal of Water Health*. 14(1): 132-141.—*available*
- [Sohns, A, Ford, J., Adamowski, J., Robinson, B.](#) (2020). Participatory Modeling of Water Vulnerability in Remote Alaskan Households Using Causal Loop Diagrams. *Environmental Management*. 28: 26-42.—*available*

October 30th

Week 10

FISHERIES AND FISHERIES MANAGEMENT

- [Johnson, T. R., and van Densen, W. L. T. \(2007\).](#) The benefits and organization of cooperative research for fisheries management. *ICES Journal of Marine Science*, 64: 834–840.—[available](#)
- [Islam, D., and Berkes, F. \(2016\).](#) Indigenous peoples' fisheries and food security: a case from northern Canada. *Food Security* 8: 815-826.—[available](#)
- [Walsey, V., and Brewer, J. \(2018\).](#) Managed out of existence: over-regulation of Indigenous subsistence fishing of the Yukon River. *GeoJournal* 83:1169–1180.—[available](#)
- [Donkersloot, R., et al. \(2020\).](#) Assessing the sustainability and equity of Alaska salmon fisheries through a well-being framework. *Ecology and Society*. 25(2): 18.—[available](#)

Problem Set 3 due

November 6th

Week 11

1. ENERGY CONSERVATION AND USE

2. CONVENTIONAL AND ALTERNATIVE ENERGY SYSTEMS IN DESIGN AND PRACTICE

- [Douglass, M. \(1998\).](#) A Regional Network Strategy for Reciprocal Rural-Urban Linkages. *Third World Planning Review*, 20(1), 1-33.—[available](#)
- [Pickett, C, Cadenasso, M., Grove, J., Nilon, C., Pouyat, R., Zipperer, W., & Costanza, R., \(2001\).](#) Urban Ecological Systems: Linking Terrestrial Ecological, Physical, and Socioeconomic Components of Metropolitan Areas. *Annual Review of Ecological Systems* 32:12 7-157.—[available](#)
- [Lehrer, J. \(2007\).](#) The Living City. Seed. July.—[available](#)
- [Holdmann, G., Wies, R., & Vandermeer, J. \(2019\).](#) Renewable Energy Integration in Alaska's Remote Islanded Microgrids: Economic Drivers, Technical Strategies, Technological Niche Development, and Policy Implications. *Proceedings of the IEEE*, 107(9).—[available](#)

Position Paper updates due

November 13th

Week 12

1. MODELS OF SOCIAL AND ECOLOGICAL SYSTEMS ANALYSIS

2. UNDERSTANDING AND APPLICATION IN ECOLOGICAL, ECONOMIC, AND SOCIAL SUSTAINABILITY

- [Lovelock, J. \(1986\).](#) Gaia: The World as a Living Organism. *New Scientist*, 112(1539): 25-31.—[available](#) [Original 1973 article included for reference.]
- [Dublin, D.R., & Tanaka, N. \(2014\).](#) Indigenous Agricultural Development for Sustainability and "Satoyama." *Geography, Environment, Sustainability*, 7(2), pp.86-95.—[available](#)
- [Chapin, S.C., Knapp, C., Brinkman, T., Bronen, R., & Cochran, P. \(2016\).](#) Community-Powered Adaptation for Self-Reliance. *Current Opinion in Environmental Sustainability*, 19: 67-75.—[available](#)
- [Mancuso, F. \(2019\).](#) Nenana Community Development Plan: 2019-2023. Nenana Native Council, Tanana Chiefs Conference, pp. 48-62.—[available](#)

November 20th

Week 13

1. INTRODUCTION TO COMMUNITY-BASED PARTICIPATORY RESEARCH (CBPR)

2. LOCAL KNOWLEDGE, MODELS, AND SUSTAINABLE COMMUNITY DESIGN

- [Cash, D.W., Borek, J.C., & Patt, A.G. \(2006\). Countering the Loading Dock Approach to Linking Science and Decision Making. Science, Technology & Human Values, 31\(4\), 465-494.—
available](#)
- [Johnson, J., Howitt, R., Cajete, G., Berkes, F., Louis, R.P., & Klisky, A. \(2015\). Weaving Indigenous and sustainability sciences to diversify our methods. Sustainability Science 11: 1-1.—
available](#)
- [Norström, A., et al. \(2020\). Principles for Knowledge Co-Production in Sustainability Research. Nature Sustainability.—*available*](#)
- [Tengö, M., Austin, B. J., Danielsen, F., & Fernández-Llamazares, Á. \(2021\). Creating synergies between citizen science and Indigenous and local knowledge. BioScience, 71\(5\), 503-518. —
available](#)

November 27th

Week 14—Thanksgiving Break; no classes.

December 4th

Week 15

First Position Paper Presentations

- | | | | |
|---------------------|---------------------|---------------------|---------------------|
| 1. <i>available</i> | 3. <i>available</i> | 5. <i>available</i> | 7. <i>available</i> |
| 2. <i>available</i> | 4. <i>available</i> | 6. <i>available</i> | 8. <i>available</i> |

Semester Position Papers due

December 11th

Week 16 (if needed)

Second Position Paper Presentations

- | | | | |
|---------------------|---------------------|---------------------|---------------------|
| 1. <i>available</i> | 3. <i>available</i> | 5. <i>available</i> | 7. <i>available</i> |
| 2. <i>available</i> | 4. <i>available</i> | 6. <i>available</i> | 8. <i>available</i> |



“Yes, the planet got destroyed. But for a beautiful moment in time we created a lot of value for shareholders.”