CCS/NRM 656

Sustainable Livelihoods and Community Wellbeing

Center for Cross-Cultural Studies Indigenous Studies Graduate Programs Fall 2021

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Wednesdays 5:15-8:15, 8/28 – 12/4 (all students will join by audioconference due to the coronavirus)

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 & 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 3-5 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.

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 20 pages, including references cited, maps, figures and tables. 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 assignments. Please note that all required readings for this course (except for student-led new article discussion) will be provided by the instructor.

Summary of Coursework

3-4 (presented according to schedule devised in class) 1. Reading Reactions

3 (scheduled throughout the semester) 2. Problem Sets

3. Paper & Presentation 1 (due at end of semester); 1 presentation <u>Reading Discussions</u>: Each student will lead three group discussions based on the readings. The reading presentations will include a 2-4 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). *Note that one of the three reading discussions will include an article located and distributed by the student.*

<u>Problem Sets</u>: 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.

<u>Paper & Presentation</u>: 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 20-25 minute presentation will be followed by a 10-20 minute discussion. The paper itself should be 10-20 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.

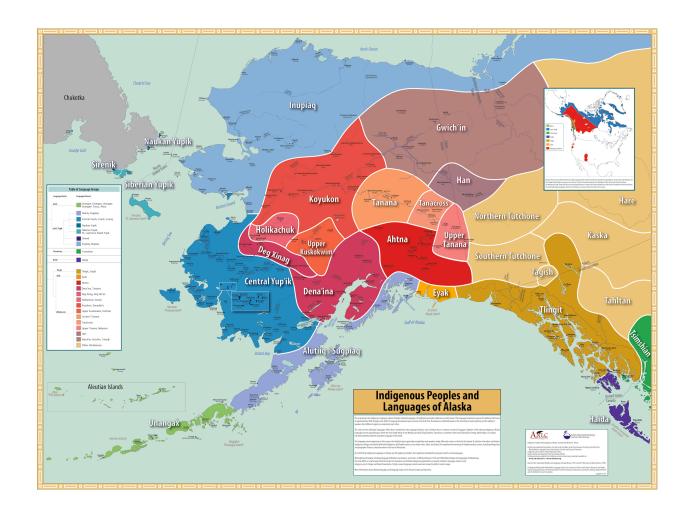
Overall Grading will be as follows:

Class Participation and Attendance	20%
Reading Discussions (3-4 total)	20%
Problem Set Papers (3 total)	20%
Student Presentation and accompanying in-class discussion	20%
Semester Paper	20%
*	100%

	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%		

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 need to be read *before* the scheduled class, since they will constitute an important focus of inclass discussion. Most classes will include the presentation of information by the instructor, preceded or followed by discussions of the readings. Guest speakers will be inserted into the schedule according to their preferences and the current placement of guests in the schedule below *will almost certainly change*. This will require both the instructor and students to be flexible concerning scheduling. *Please remember, class attendance is required, and repeated absences will result in a lower final grade*.

August 25th

Week 1

- 1. INTRODUCTIONS
- 2. BASICS OF CULTURAL, SUSTAINABILITY, & WELLBEING STUDIES

September 1st

Week 2

- 1. INTRODUCTION TO CULTURAL & CROSS-CULTURAL RESEARCH
- 2. BACKGROUND, LIVELIHOOD, AND PLACE-BASED DESIGN
 - Kates, R. W, 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.—*available*
 - White Jr., L., (1967). The historical roots of our ecological crisis. *Science* 155 (3767): 1203-1207.—available
 - DFID. (1999). Sustainable Livelihoods Guidance Sheets.—available

September 8th

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
 - Sayre, N. (2008). The Genesis, History, and Limits of Carrying Capacity. *Annals of the Association of American Geographers*, 98(1), 120-134.—*available*
 - Toman, M. (1992). The difficulty in defining sustainability. *Resources*, 106, 3-6.—available
 - Student-led Article Discussion—available

September 15th

Week 4

- 1. THE HUMAN
- 2. POPULATION AND POPULATION GROWTH
 - Hamilton, L.C. & Mitiguy, A.M. (2009). Visualizing Population Dynamics of Alaska's Arctic Communities. *Arctic*, 62 (4), 393-398.—*available*
 - 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*

Paper summaries due

September 22nd

Week 5 (Mike doing fieldwork this week; no class or reading discussion, but readings below should be read.)

- 1. OUR COMMUNITIES AND THE ENVIRONMENT
- 2. 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.
 - Lynch, A., & Brunner, R. (2007). Context and climate change: an integrated assessment for Barrow, Alaska. *Climatic Change*, 82, 93-111.
 - 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.

September 29th

Week 6

- 1. OUR COMMUNITIES AND SOCIOECONOMIC CHANGE
- 2. INFRASTRUCTURE, EMPLOYMENT, DEMOGRAPHICS, EDUCATION
 - 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
 - Barnhardt, R., & Kawagley, A. O. (2004). Culture, Chaos and Complexity: Catalysts for Change in Indigenous Education. *Cultural Survival Quarterly*, 27 (4), 59-64.—*available*
 - Student-led Article Discussion—available

Problem Set 1 due

October 6th

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.—*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*
 - 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—available

October 13th

Week 8

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

- Webb, P. (2010). Medium to long-run implications of high food prices for global nutrition. *Journal of Nutrition* 140 (1): 143S-147S.—*available*
- Sundkvist, A., Milestad, R., & Jansson, A. (2005). On the importance of tightening feedback loops for sustainable development of food systems. *Food Policy*, 30, 224-239.—*available*
- Kloppenburg, Hendrickson, J., & Stevenson, G. (1996). Coming into the Foodshed. *Agriculture and Human Values*, 13 (3), 33-42.—*available*
- Loring, P. and Gerlach, S. (2009). Food, Culture, and Human Health in Alaska: An Integrative Approach. *Environmental Science and Policy* 12 (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 20th

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*
 - White, D. M., Hinzman, L. D., Alessa, L., Cassano, J., Chambers, M., Falkner, I., Francis, J., et al. (2007). The arctic freshwater system: Changes and impacts. *Journal of Geophysical Research*, 112, 21 PP. doi: 2 00710.1029 / 2006J G 000353.—available
 - Hennessey, T., Ritter, T., Holman, R., Bruden, D., Yorita, I., Bulkow, L., Cheek, J., et al. (2008).
 The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives. *American Journal of Public Health.—available*

October 27th

Week 10

FISHERIES AND FISHERIES MANAGEMENT

- Allison, E., Perry, A. L., Badjeck, M., Neil Adger, W., Brown, K., Conway, D., Halls, A. S., et al. (2009). Vulnerability of national economies to the impacts of climate change on fisheries. Fish and Fisheries, 10 (2), 173-196.—available
- ADF&G. (2009). Sustaining Alaska's Fisheries: 50 Years of Statehood. Juneau, AK: Alaska Department of Fish and Game.—available
- Carothers, C., Lew, D. K., & Sepez, J. (2010). Fishing rights and small communities: Alaska halibut IFQ transfer patterns. *Ocean & Coastal Management*, 53(9), 518-523.—available
- Islam, D., and Berkes, F. (2016). Indigenous peoples' fisheries and food security: a case from northern Canada. *Food Security* 8: 815-826.—*available*

Problem Set 3 due

November 3rd

Week 11

- 1. ENERGY CONSERVATION AND USE
- 2. CONVENTIONAL AND ALTERNATIVE ENERGY SYSTEMS IN DESIGN AND PRACTICE
 - 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
 - Douglass, M. (1998). A Regional Network Strategy for Reciprocal Rural-Urban Linkages. *Third World Planning Review*, 20 (1), 1-33.—*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

Semester Paper updates due

November 10th

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.]
 - Walker, B., Holling, C., Carpenter, S., & Kinzig, A. (2004). Resilience, Adaptability and Transformability in Social-ecological Systems. *Ecology and Society*, 9 (2).—*available*
 - Dublin, D.R, & Tanaka, N. (2014). Indigenous Agricultural Development for Sustainability and "Satoyama." *Geography, Environment, Sustainability*, 7(2), pp.86-95.—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

November 17nd

Week 13

- 1. INTRODUCTION TO COMMUNITY-BASED PARTICIPATORY RESEARCH (CBPR)
 2. LOCAL KNOWLEDGE, MODELS AND METHODS USED IN CUMULATIVE EFFECTS
 ANALYSIS, INTEGRATED ASSESSMENT, 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
 - Community Health Status Assessment Report. (2009; 2014). Homer, AK: Southern Kenai Peninsula Communities Project.—available

Semester Papers due

November 24th

Week 14

Thanksgiving Break; no classes.

December 1st

Week 15

First Student Presentations

available
 available
 available
 available
 available
 available
 available
 available
 available

December 8th

Week 16

Second Student Presentations

1. available2. available3. available4. Available5. available6. available7. available8. available

Student Protections & Support

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

Further, students are expected to adhere to the university's policies, practices, and mandates and are subject to disciplinary actions if they do not comply.

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.

Student Academic Support:

- Speaking Center (907-474-5470, <u>uaf-speakingcenter@alaska.edu</u>, Gruening 507)
- Writing Center (907-474-5314, uaf-writing-center@alaska.edu, Gruening 8th floor)
- UAF Math Services, <u>uafmathstatlab@gmail.com</u>, Chapman Building (for math fee paying students only)
- Developmental Math Lab, Gruening 406
- 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/)
- For more information and resources, please see the Academic Advising Resource List (https://www.uaf.edu/advising/lr/SKM 364e19011717281.pdf)

Student Resources:

- Disability Services (907-474-5655, <u>uaf-disability-services@alaska.edu</u>, Whitaker 208)
- Student Health & Counseling [6 free counseling sessions] (907-474-7043, https://www.uaf.edu/chc/appointments.php, Whitaker 203)
- Center for Student Rights and Responsibilities (907-474-7317, <u>uaf-studentrights@alaska.edu</u>, 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)

Nondiscrimination statement: The University of Alaska is an affirmative action/equal opportunity employer and educational institution. The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at www.alaska.edu/nondiscrimination. For more information, contact:

UAF Department of Equity and Compliance 1760 Tanana Loop, 355 Duckering Building, Fairbanks, AK 99775 907-474-7300 uaf-deo@alaska.edu

Additional syllabi statement for courses including off-campus programs and research activities: University Sponsored Off-Campus Programs and Research Activities We want you to know that:

- 1. UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination.
- 2. Incidents can be reported to your university's Equity and Compliance office (listed below) or online reporting portal. University of Alaska takes immediate, effective, and appropriate action to respond to reported acts of discrimination and harassment.
- 3. There are supportive measures available to individuals that may have experienced discrimination.
- 4. University of Alaska's Board of Regents' Policy & University Regulations (UA BoR P&R) 01.02.020 Nondiscrimination and 01.04 Sex and Gender-Based Discrimination Under Title IX, go to: http://alaska.edu/bor/policy-regulations/.
- 5. UA BoR P&R apply at all university owned or operated sites, university sanctioned events, clinical sites and during all academic or research related travel that are university sponsored.

For further information on your rights and resources <u>click here</u>.