

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).  
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

**TRIAL COURSE OR NEW COURSE PROPOSAL**

**SUBMITTED BY:**

Department	<b>GEOG</b>	College/School	<b>SNRAS</b>
Prepared by	<b>Wanda Tangermann</b>	Phone	<b>7494</b>
Email Contact	<b>wrtangermann@alaska.edu</b>	Faculty Contact	<b>Craig Gerlach</b>

1. ACTION DESIRED (CHECK ONE): Trial Course ☐ New Course ☒

2. COURSE IDENTIFICATION: Dept **GEOG** Course # **6xx** No. of Credits **3.0**

Justify upper/lower division status & number of credits:

3. PROPOSED COURSE TITLE: **Sustainable Livelihoods and Community Well-Being**

4. To be CROSS LISTED? Yes ☐ If yes, Dept: **NRM/CCS & CCS** Course # **6xx** CCS signatures rec'd. Add in cross-list again.  
YES/NO  
(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. To be STACKED? No ☐ If yes, Dept. ☐ Course # ☐  
YES/NO

6. FREQUENCY OF OFFERING: **Fall**  
Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) – or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (if approved) **Fall 2012**

**8. COURSE FORMAT:**

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

COURSE FORMAT: (check all that apply) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☒ 6 weeks to full semester

OTHER FORMAT (specify)

Mode of delivery (specify lecture, field trips, labs, etc) **Lecture and discussion**

9. CONTACT HOURS PER WEEK: ☒ 3 LECTURE hours/weeks ☐ LAB hours /week ☐ PRACTICUM hours /week

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See <http://www.uaf.edu/uafgov/faculty/cd/credits.html> for more information on number of credits.

OTHER HOURS (specify type)

**10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):**

**GEOG 6xx Sustainable Livelihoods and Community Well-Being**  
**Fall 3 Credits**  
Review the basic principles that govern the sustainability of systems and look at the cultural practices and

individual behaviors that enhance or degrade sustainable livelihoods and community well-being. 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.

*Prerequisites: Graduate standing or permission of instructor* Cross-listed with NRM 6xx; ~~CSS 6xx~~

11. **COURSE CLASSIFICATIONS:** (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities ☐ S = Social Sciences ☒

Will this course be used to fulfill a requirement for the baccalaureate core? **YES** ☐ **NO** ☐

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6 ☐ W = Writing Intensive, Format 7 ☐ Natural Science, Format 8 ☐

12. **COURSE REPEATABILITY:**

Is this course repeatable for credit? **YES** ☐ **NO** ☒

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?  **TIMES**

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?  **CREDITS**

13. **GRADING SYSTEM:** Specify only one.

**LETTER:** ☒ **PASS/FAIL:** ☐

**RESTRICTIONS ON ENROLLMENT (if any)**

14. **PREREQUISITES** Graduate standing or permission of instructor  
These will be required before the student is allowed to enroll in the course.

15. **SPECIAL RESTRICTIONS, CONDITIONS** None

16. **PROPOSED COURSE FEES** \$   
Has a memo been submitted through your dean to the Provost & VCAS for fee approval? **Yes/No** ☐

17. **PREVIOUS HISTORY**

Has the course been offered as special topics or trial course previously? **Yes/No** ☒

If yes, give semester, year, course #, etc.: Will be offered Fall 2011

18. **ESTIMATED IMPACT**

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

None. Uses existing faculty and facilities.

19. **LIBRARY COLLECTIONS**

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No ☒ Yes ☐ N/A ☐

20. **IMPACTS ON PROGRAMS/DEPTS**

What programs/departments will be affected by this proposed action? Include information on the Programs/Departments contacted (e.g., Resource Mgt.)

This course will be beneficial to students in the Departments of Geography, Natural Resources, Hight Latitue Agriculture, and Cross-Cultural Studies. The chairs of each of these departments have been contacted, and all are supportive of this course.

**21. POSITIVE AND NEGATIVE IMPACTS**

Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.

Positive impacts on other courses, programs, and departments include graduate students who are more thoroughly prepared for critical thinking in the sustainability sciences and interdisciplinary, which are both areas that are currently emphasized across the UA system.

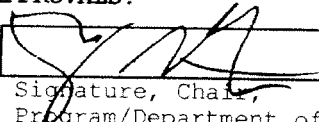
No negative impacts are anticipated, as this course does not overlap with other course offerings in terms of content provided.

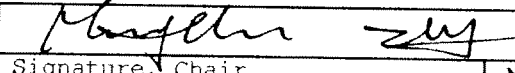
**JUSTIFICATION FOR ACTION REQUESTED**

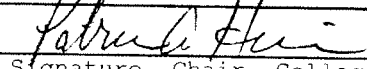
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.


Presently, in the various sustainability-themed courses on campus, the behavioral sciences dimension of sustainability is underrepresented, with more focus on "systems theory," "resilience," and "governance." This class focuses on a separate sustainability science literature that, while not currently represented in UA curriculum, is no less important to providing a first-rate sustainability science training.


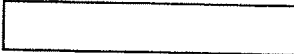
**APPROVALS:**

 Date 8-11-11  
Signature, Chair,  
Program/Department of: Geography

 Date 8/16/11  
Signature, Chair,  
Program/Department of: Natural Resources Management

 Date 11 Aug 11  
Signature, Chair, College/School  
Curriculum Council for: Natural Resources & Agricultural Sciences

 Date 8-17-11  
Signature, Dean, College/School  
of: Natural Resources & Agricultural Sciences

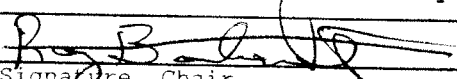
 Date   
Signature of Provost (if applicable)

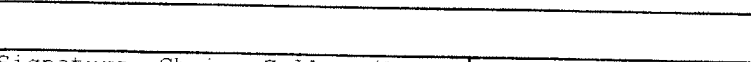
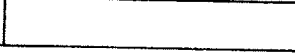
Offerings above the level of approved programs must be approved in advance by the Provost.

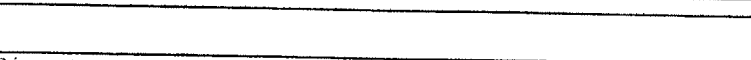

SEE NEXT PAGE FOR CROSS-LISTING SIGNATURES FOR CCS.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE REGISTRAR'S OFFICE.

**ADDITIONAL SIGNATURES: (If required)**

 Date 8/30/2011  
Signature, Chair,  
Program/Department of: Cross-Cultural Studies

 Date   
Signature, Chair, College/School  
Curriculum Council for: College of Liberal Arts

 Date   
Signature, Dean, College/School  
of: College of Liberal Arts

**21. POSITIVE AND NEGATIVE IMPACTS**

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Positive impacts on other courses, programs, and departments include graduate students who are more thoroughly prepared for critical thinking in the sustainability sciences and interdisciplinary, which are both areas that are currently emphasized across the UA system.

No negative impacts are anticipated, as this course does not overlap with other course offerings in terms of content provided.

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

Presently, in the various sustainability-themed courses on campus, the behavioral sciences dimension of sustainability is underrepresented, with more focus on "systems theory," "resilience," and "governance." This class focuses on a separate sustainability science literature that, while not currently represented in UA curriculum, is no less important to providing a first-rate sustainability science training.

**APPROVALS:**

	Date	8-11-11
Signature, Chair, Program/Department of:	Geography	

	Date	8/16/11
Signature, Chair, Program/Department of:	Natural Resources Management	

	Date	11 Aug 11
Signature, Chair, College/School Curriculum Council for:	Natural Resources & Agricultural Sciences	

	Date	8-17-11
Signature, Dean, College/School of:	Natural Resources & Agricultural Sciences	

	Date	
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Signature of Provost (if applicable)

Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE REGISTRAR'S OFFICE.

**ADDITIONAL SIGNATURES: (IF required)**

	Date	8/30/2011
Signature, Chair, Program/Department of:	Cross-Cultural Studies	

	Date	12/14/2011
Signature, Chair, College/School Curriculum Council for:	College of Liberal Arts	

	Date	12/16/11
Signature, Dean, College/School of:	College of Liberal Arts	

# **SUSTAINABLE LIVELIHOODS AND COMMUNITY WELL-BEING**

**CCS/NRM/GEOG 693 XX**

## **SYLLABUS**

**FALL SEMESTER, 2012**

**3 CREDITS**

### **INSTRUCTOR**

Craig Gerlach

Telephone: 474-6752

Email: [scgerlach@alaska.edu](mailto:scgerlach@alaska.edu)

Office: 109 Bunnell; (351 O'Neill)

Office Hours: TBA

Class Time: TBA

Class Location: TBA

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### **PREREQUISITES**

Graduate standing, or permission from the instructor required. Upper division undergraduates from any of the social and/or natural sciences are encouraged to enroll; graduate or upper division undergraduate students from CCS, NRM and Geography are especially encouraged to attend.

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### **COURSE MATERIAL**

In addition to the required texts listed below, articles, books, monographs, and supplementary source material will be distributed electronically or as "hard copy" throughout the semester. Supplementary sources and background material on sustainability, sustainable livelihoods, sustainable development, community health and well-being are available through ERES in the Rasmusson Library. This material may be accessed through <http://eres.uaf.edu> (password: sustain)

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### **REQUIRED TEXTS**

Brown, Lester

2011. Plan B 4.0. W.W. Norton and Company.

Available online for free at <http://www.earth-policy.org/books/pb4>

Hertsgaard, Mark

2011 Hot: Living Through The Next Fifty Years on Earth. Houghton Mifflin Harcourt.

Holthaus, Gary

2008 Learning Native Wisdom: What Traditional Cultures Teach Us about Subsistence, Sustainability, and Spirituality. University Press of Kentucky.

Edwards, Andres

2005 The Sustainability Revolution, Portrait of a Paradigm Shift. New Society Publishers.

James, Sarah, and Torbjorn Lahti

2004 The Natural Step for Communities, How Cities and Towns Can Change to Sustainable Practices. New Society Publishers.

Parenti, Christian

2011 Tropic of Chaos. Climate Change and the New Geography of Violence. Nation Books.

Wackernagel, M, and W. Rees

1996 Our Ecological Footprint, Reducing Human Impact on the Earth. New Society Publishers, Gabriola Island, B.C. Canada.

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## **COURSE DESCRIPTION**

In this course we will review the basic principles captured within the notion of sustainability, and will look at the cultural practices and individual behaviors that enhance or degrade sustainable livelihoods and community well-being. 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.

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## **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 a take-home mid-term, contributions to weekly discussions, oral presentations, written problem sets, 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. There will be five problem sets assigned through the course of the semester.

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 no longer than 10- 15 pages, with this value not 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.

All papers will be reviewed, edited, and returned to you with comments prior to final submission.

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## **GRADE DISTRIBUTION**

Contribution to class discussion	25%
Take Home Mid-Term	25% (Due: November 1, 2012)
Written Problem Sets	25%
Final Research Paper	25% (Due: Last day of formal class instruction)

## **GRADING SCALE**

A	(93-100)
A-	(90-92)
B	(83-89)
B-	(80-82)

C	(73-79)
C-	(70-72)
D	(63-69)
D-	(60-62)
F	(59 and down)

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### **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.  
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.
- (2) To develop 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.
- (3) To learn and apply a corpus of qualitative and quantitative skills to “real world” problems to social, economic and ecological problems, skills that are interdisciplinary in their historical development, skills 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 Well-Being.
- (4) To understand the principles and applications of ecological design for small community, rural development, and sustainable livelihoods.

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### **WEEKLY TOPICS AND SCHEDULE**

**Week 1:** Introduction to course, requirements and expectations.

**Weeks 2:** Introduction to concepts of sustainability, review of historical background, the Sustainable Livelihoods Framework, and place-based design solutions.

- 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.
- White Jr., L., 1967. The historical roots of our ecological crisis. *Science* 155(3767):1203-1207.
- DFID. 1999. Sustainable Livelihoods Guidance Sheets.

**Week 3:** Introduction to concepts of sustainability: commons, carrying capacity, I=PAT, and other cultural concepts

- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162(3859)1243-1248.
- Sayre, N. (2008). The Genesis, History, and Limits of Carrying Capacity. *Annals of the Association of American Geographers*, 98(1), 120-134.
- Toman, M. (1992). The difficulty in defining sustainability. *Resources*, 106, 3-6.

#### **Week 4:** Population and population growth

- Holdren, J. P. (1991). Population and the energy problem. *Population and Environment*, 12(3), 231-255.
- Hopfenberg, R., & Pimentel, D. (2001). Human Population Numbers as a Function of Food Supply. *Environment, Development and Sustainability*, 3(1), 1-15.
- Rahnama, M. (2002). A Different Look at the "Population Problem". *Population & Environment*, 24(1), 97-104-104.

#### **Week 5:** Communities and climate change, communities and global environmental change.

- DeFries, 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.

#### **Weeks 6:** Communities and social change, communities and economic change. 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.
- 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.
- Barnhardt, R., & Kawagley, A. O. (2004). Culture, Chaos and Complexity: Catalysts for Change in Indigenous Education. *Cultural Survival Quarterly*, 27(4), 59-64.

#### **Week 7:** Sustainability, development, individual and community health, risk, and environmental justice.

- **Watch on your own:** Pebble Partnership Commercials at <http://www.youtube.com/user/pebblepartnership?blend=22&ob=5>
  - "Opportunities," "Where is Pebble," and "Pebble Science"
- Krieger, N. 2005. Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology and Community Health*, 59(5), 350-355.

- Checker, M. (2007). "But I Know It's True:" Environmental Risk Assessment, Justice, and Anthropology. *Human Organization*, 66(2), 112-124.
- Wernham, A. (2007). Inupiat 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.

**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.
- 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.
- Kloppenburg, J., Hendrickson, J., & Stevenson, G. (1996). Coming into the Foodshed. *Agriculture and Human Values*, 13(3), 33-42.
- Loring, P. and Gerlach, S. 2009. Food, Culture, and Human Health in Alaska: An Integrative Approach. *Environmental Science and Policy* 12(4): 466-478.

**Week 9:** Communities and hydrological change, communities and water availability, safety and health.

- Gleick, P. 2003. Water Use. *Annual Review of Environment and Resources*. 28(1): 275-314
- Postel, S. 2005. From the headwaters to the sea: The critical need to protect freshwater ecosystems. *Environment* 47(10):8-21
- White, D. M., Hinzman, L. D., Alessa, L., Cassano, J., Chambers, M., Falkner, K., Francis, J., et al. (2007). The arctic freshwater system: Changes and impacts. *Journal of Geophysical Research*, 112, 21 PP. doi:200710.1029/2006JG000353
- Hennessey, T., Ritter, T., Holman, R., Bruden, D., Yorita, K., 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*, DOI 10.2105/AJPH.2007.115618.

**Week 10:** Fisheries and Fisheries Management.

- **Watch on your own:** *Nature*: "Salmon: Running the Gauntlet." Available for viewing online at: <http://www.pbs.org/wnet/nature/episodes/salmon-running-the-gauntlet/video-full-episode/6620/>
- Allison, E. H., 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.
- ADF&G. (2009). *Sustaining Alaska's Fisheries: 50 Years of Statehood*. Juneau, AK: Alaska Department of Fish and Game.

- 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.

**Week 11:** Urban and rural energy conservation and use; conventional and alternative energy systems in design and practice.

- Pickett, Cadenasso, et al., 2001. Urban Ecological Systems: Linking Terrestrial Ecological, Physical, and Socioeconomic Components of Metropolitan Areas. *Annual Review of Ecological Systems* 32:127-157
- Douglass, M. (1998). A Regional Network Strategy for Reciprocal Rural-Urban Linkages. *Third World Planning Review*, 20(1), 1-33.
- Lehrer, J. 2007. The Living City. *Seed*. July.  
[http://seedmagazine.com/content/article/the\\_living\\_city/P1/](http://seedmagazine.com/content/article/the_living_city/P1/)

**Week 12/13:** Understanding and applying models of social and ecological systems analysis to problems of community ecological, economic and social sustainability.

- Lovelock, J. 1986. Gaia: The world as a Living Organism. *New Scientist* 112(1539):25-31.
- Walker, B., Holling, C., Carpenter, S., & Kinzig, A. 2004. Resilience, Adaptability and Transformability in Social-ecological Systems. *Ecology and Society*, 9(2).
- TBD

**Weeks 14:** Introduction to Community Based Participatory Research (CBPR), local knowledge, and to models and methods used in cumulative effects analysis, integrated assessment, and sustainable community design.

- Cash, D. W., Borck, 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.
- Southern Kenai Peninsula Communities Project. (2009). *Community Strengths and Themes Assessment Report* (p. 26). Homer, AK: Southern Kenai Peninsula Communities Project. Retrieved from [http://skpcommunitiesproject.net/HoldSoholaunch/media/Community\\_Themes\\_and Strenths\\_Assessment.pdf](http://skpcommunitiesproject.net/HoldSoholaunch/media/Community_Themes_and_Strenths_Assessment.pdf)

**Week 15:** Oral presentation of final research paper (15 minute presentation by each student).

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## UAF POLICIES

You are expected to adhere to the Academic Code of Honor as outlined in the University of Alaska Catalog. A note on borrowing: remember that copying from an author without attribution is plagiarism; using the ideas and results of many with attribution and clear acknowledgement of the source(s) is the first step toward research. If you are found to have plagiarized, failed to properly cite, reference and/or properly attribute the work of others, you will fail the class.

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**DISABILITIES SERVICES**

The University of Alaska provides equal access for all students with disabilities. The Office of Disabilities Services Implements the Americans with Disabilities Act (ADA) to ensure that all students have equal access to campus facilities and course material. Please advise in writing if you need special consideration. If you have questions, please contact the Office of Disabilities Services at (907) 474-5655.

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**CELL PHONES AND COMPUTER USE**

You are expected to use your computer only for activities related to class. Your cell phone should not ring during class, but if you anticipate an emergency, please let the instructor know in advance if possible.

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