Culture, Climate, and Food Security in the Alaskan Arctic

[EARTHSYS 17SC/GEP 17SC] Sophomore College

Instructor: Prof. Rosamond Naylor, Associate Instructor: Dr. Kristen Green

Course Manager: Corinne Thomas

(Working draft last updated September 18, 2026)

Photo - NPS

"From the time that I can remember. . . my grandparents, uncles, aunts would tell us . . . Animals give their life to you and if you take one, you honor it by using as much of it as you can. . . When I go hunting, I stop after I've harvested an animal and I thank it in my mind or out loud. Then [I] start the process of harvesting with respect. And the way that we're taught, is the way that we teach.

As soon as you take me out of here, I feel like my soul starts shriveling. And if I eat a piece of Native food from home, my soul gets rejuvenated just a little. And the more traditional foods I eat, the more I feel whole. And every piece of food, I look at and think of all the work that's gone into this piece that my children or my children's children may not experience because the land is changing."

– Karmen Schaeffer Monigold

Course Overview:

Alaska offers a unique opportunity for students to explore the intersection of Indigenous knowledge and culture, food systems, and climate change in a field-based setting. Alaska is by far the largest state in the American West (665 thousand square miles), equivalent to roughly one-fifth the size of the entire lower 48, and covering more territory than Texas, California, and Montana combined. It also has the largest Exclusive Economic Zone (EEZ) in the U.S. (1.46 million square miles). Taken together, Alaska's extensive terrestrial and marine areas support a mixed cash and subsistence economy where communities rely on wild caught and commercially sold foods and other natural resources (oil, gas, mining) extracted for export and domestic use.

The Indigenous Peoples of Alaska, who comprise about a quarter of the state's population, have depended on subsistence food systems for thousands of years, long before Alaska became the 49th U.S. state in 1959. Diets of both indigenous and non-indigenous peoples have evolved with Alaska's economic and commercial development, and subsistence food systems have been increasingly impacted by climate change. According to the 2023 National Climate Assessment, Alaska has been warming two to three times as quickly as the global average since the middle of the 20th century, and the Alaskan Arctic has been warming roughly four times faster. In many respects, Arctic communities in Alaska stand at the frontlines of climate change, as rising land and ocean temperatures, melting sea ice and permafrost, coastal erosion, and other climate impacts escalate, and communities work to adapt.

This course will focus on food security and food sovereignty, climate change, and climate adaptation in Alaska's Northwest Arctic Borough—a region traditionally, and still largely, inhabited by the Iñupiat. Iñupiat communities continue to rely on their deep indigenous knowledge systems and strong cultural practice of sharing to bolster food security and food sovereignty in the face of rising climate pressures on their land- and marine-based food systems. They also co-manage certain resources with state and federal agencies to sustain long-standing reciprocal relationships with animal populations, which helps to buffer the impacts of climate change and economic development on food availability and food prices. The Iñupiat have thus developed stewardship practices that are based on both Indigenous knowledge and western science. The field content in NW Alaska will focus mainly on caribou and the changing role of caribou in the subsistence food system, although discussions will also include topics related to fisheries, farms, and commercial foods.

Structure of the Course:

The course will consist of four parts: 1) Orientation, bonding exercises, and background lectures at the Stanford campus; 2) Field study in Alaska's Northwest Borough, centered in Kotzebue and Noatak; 3) Travel to Denali National Park and Preserve to further explore the concept of wilderness, subsistence harvest, and agriculture; and 4) Meetings with Stanford alumni and other Alaskan experts in Anchorage. Students will design team projects during the course and present their findings to Stanford alumni in Anchorage at the end of the course.

Goals and learning objectives:

The goals and learning objectives of this course closely align with the mission of the Stanford Doerr School of Sustainability and the Lane Center for the American West.

***Before, during, and after, students will*:**

- Grapple with global challenges in addressing natural resource management and support of Indigenous food systems in the face of socioeconomic and climate changes.
- Gain understanding of the complexity of social-ecological systems and the drivers of local change through a place-based educational experience
- Develop skills in assessing food security and food sovereignty in the region based on Indigenous and Western definitions
- Develop the capacity to examine the role of rightsholders in decision-making
- Examine the inequitable distribution of climate change impacts on food security and food sovereignty and develop skills to address these impacts
- Explore the deep historical roots of the Iñupiat in Alaska's Northwest Borough and the ways in which Alaska differs from other U.S. western states in historical origin and contemporary economic and cultural practice
- Learn about Indigenous knowledge practices for subsistence food harvesting and stewardship and how these practices are passed through generations in Iñupiat communities
- Gain understanding of what adaptation to climate change looks like in practice, considering actions and linkages across scales (local to global)

Planned Course Schedule:

- **August 31-September 3. Stanford University Campus.** Students will meet each other and course instructors, and listen to lectures about climate change, food security & sovereignty, Alaska legislature history around natural resources, caribou ecology, Arctic research, and how to respectfully engage with Alaska Native communities and Alaska residents in general.
- **September 4-6.** Students work with CAs to prepare for their trip to Alaska on Sept 4-5 and then fly to Anchorage on Sept 6.
- **September 7-8. Kotzebue**. After meeting with a researcher on Indigenous knowledge, research and climate adaptation in Anchorage on Sept 7, we will fly to the Northwest Borough of Alaska, landing in Kotzebue, a town known by the Iñupiat as Kikiktagrut ("almost an island"), bordering land and sea. In Kotzebue, students will have an opportunity to talk to local tribal leaders and Iñupiat inhabitants, state and federal managers, and non-indigenous residents (some Stanford alumni) who live in the region. Meetings will be arranged with resource managers and scientists at the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Park Service, and representatives of the Western Arctic Caribou Herd Working Group.

- **September 9-11. Noatak.** We will fly to Noatak, Alaska, a 570 person Inpuiaq village on the Noatak River, near the Noatak National Preserve where the Western Alaska caribou migration occurs. Here we will have the opportunity to meet with local subsistence harvesters, pick wild berries, view the landscape, and conduct outreach with the local school.
- **September 11-12.** We will fly from Noatak to Kotzebue to Anchorage late on Sept. 11th. Sept. 12th will be a free day for the students.
- **September 13-15.** We will take the train from Anchorage to Denali National Park, where we will have the chance to tour the park, talk with National Park Service educational staff, hike, and visit with Indigenous leaders at the Calypso Farm and Ecology Center.
- **September 16-17.** We will take the train back to Anchorage on Sept. 16th. September 17th will be devoted to preparation and final group presentations for the students in the evening with Stanford alumni at the hotel in Anchorage.
- **September 18.** Fly from Anchorage back to Stanford Campus.

Expectations: Students are expected to come fully prepared for all class and field meetings, to show up on time (or earlier!) for all meetings, and to show respect to each other, as well as to the instructors and all meeting participants. As we meet with various state and federal government officials and rights holders on our trip, you will be expected to ask thoughtful—challenging, but respectful—questions. During our first week of class, please start to brainstorm questions that you want to ask as we travel and speak with community members. How might your questions help guide your learning and assignments?

Laptop policy: Class: Laptops are allowed, but only for class-related activities: (1) to take notes, (2) to access course materials, and (3) to do class-related research (e.g. looking up the answer to a question raised in class). You should not use your laptop for non-class-related activities (e.g. social media) during class; if you do so, the entire class may lose the privilege.

Reading and research materials:
One book has been assigned for the class, to be read prior to the start of the course:

- Seth Kantner (2021), *A Thousand Trails Home: Living with Caribou* (Mountaineers Books)

Additional background reading and research material will be posted on the Canvas website for the course.

Required Assignments: There are two required assignments, to be discussed in class and posted on the Canvas website.

- Summary of key points of interest from the required reading (above)
- Group project presentation (description below, also to be discussed in class)

Presentations and background reading & research materials

Readings, class announcements, assignments, and updated schedule changes will be posted on the course Canvas site. Please check the site and your email regularly for updates.

Classes during the first week will be held from **9:30 AM- noon**, followed by lunch. Afternoon sessions will start promptly at 2 PM, so please return to class by **1:45 PM**, and will end by 5 PM.

August 31 (Monday)

Morning:

Introduction to students and course

Food Security and Food Sovereignty (Roz Naylor)

- Background reading
    - Inuit Circumpolar Council-Alaska. 2015. Alaskan Inuit food security conceptual framework: How to assess the Arctic from an Inuit perspective. Technical report
    - Fall, J. A. and M. L. Kostick, 2018. Food security and wild resource harvests in Alaska. Alaska Department of Fish and Game, Division of Subsistence (July).
    - Angus Naylor et al. 2023. Inuit-defined determinants of food security in academic research focusing on Inuit Nunangat and Alaska: A scoping review protocol. Nutrition and Health, vol 29 (2).
    - FAO, IFAD, UNICEF, WFP and WHO. 2026. The State of Food Security and Nutrition in the World 2026 – Understanding and addressing the high cost of a healthy diet. Rome. https://doi.org/10.4060/cd8306en
        - This report provides the global Western definition of food security, food insecurity, and nutrition around the world. It is interesting to compare this Western view to the Inuit definition of food security. Ask the questions: How have changes in climate and culture in the Alaskan Arctic influenced the role of markets and altered the balance of subsistence and commercial foods in local diets? What are the main feedbacks in the food system that influence food security and food sovereignty?
        - Focus on the Executive Summary and Chapters 1 and 2.

Lunch

Afternoon:

Alaska Governance and Social-Ecological Systems (Kristen Green)

- Background reading
    - Green, K.M., Beaudreau, A.H., Lukin, M.K. and Ardoin, N.M., 2022. Pathways to subsistence management in Alaska national parks: Perspectives of harvesters and agency staff. People and Nature, 4(6), pp.1664-1678.
    - ANCSA: https://www.uaf.edu/tribal/academics/112/unit-3/alaskanativeclaimssettlementactancsa1971.php
    - ANILCA: https://www.uaf.edu/tribal/academics/112/unit-3/tribalhuntingandfishingrightssubsistenceanilca1980.php
    - U.S. Department of the Interior, National Park Service, Region 11, Alaska: Alaska Park Science Vol 23 (1): The changing human dimensions of Alaska parks.
        - Alaska Park Science home page

Introduction to group projects

Dinner at the Stanford Farm

September 1 (Tuesday)

Morning:

Climate Change Globally and in the Arctic

Professor David Battisti, University of Washington

- Background reading/viewing:
    - NOAA (2025), Arctic Report Card 2025.
    - U.S. Global Change Research Program (2023), Fifth National Climate Assessment: Focus on chapters 2, 3, and 29.

- Inter-governmental Panel on Climate Change (IPCC), 6th Assessment Report (2023). AR6 Synthesis Report, Climate Change 2023. Focus on the Summary for Policy Makers. The rest of the report is filled with additional information that might be of interest.
- (News flash): Yereth Rosen, 2026, Trump administration ends NOAA support for annual Arctic Report Card. *Alaska Beacon* (August 12)
- Daniel Roberts (2024), Youtube video by BBC Ideas: What happens when the permafrost thaws?
- Seth Kantner (blog), The Tundra is Burning (July 25, 2025; 8 min read)
- Gunn, A. et al. 2024. Migratory tundra caribou in a warmer climate. NOAA Arctic Report Card 2024.

Lunch

Afternoon:

Caribou ecology and climate impacts on caribou

Tim Fullman, The Wilderness Society and Western Arctic Caribou Herd Working Group

- Videos:
  - Leanne Allison and Diana Wilson, Directors (2017): Being Caribou. National Film Board of Canada Productions, Vimeo productions.
  - Desiree Hagen, KOTZ. 2025: Advocates push for stronger measures to stop the Western Arctic caribou herd's decline. KSKA All Things Considered.

- Background optional reading:
  - Severson, J. P et al. 2021, Spring phenology drives range shifts in a migratory Arctic ungulate with key implications for the future, *Global Change Biology* (May 16): https://doi.org/10.1111/gcb.15682
    - Examines how climate change is predicted to alter summer habitat and distribution of the Porcupine Caribou Herd. Read the abstract and look at Figures 8 and 9 to see how habitat is predicted to shift over time.

  - Johnson, H. E. et al., 2022, Survival and reproduction in Arctic caribou are associated with summer forage and insect harassment. Frontiers in Ecology and Evolution, vol. 10: https://doi.org/10.3389/fevo.2022.899585
    - Shows that food quality and insect harassment influence caribou survival and reproduction in the Central Arctic Herd. Read the abstract and look at Figures 4 and 5.

- Joly, K. et al. 2026. Barrier impermeability is associated with migratory ungulate survival rates. Scientific Reports, vol. 16 (152): https://doi.org/10.1038/s41598-025-31911-4.
    - Finds roads can be barriers for caribou that reduce survival. Read abstract and look at Figures 1 and 2.

- The Wilderness Society. 2024. Assessment of ecological and cultural values within the National Petroleum Reserve–Alaska. DOI: 10.5281/zenodo.15177945.
    - Provides an overview of the ecological importance of the NPR-A. Review the Table of Contents and skim any chapters of interest, especially focusing on figures.

Group exercise: Reflections on the material presented to date (**Roz and Kristen**)

September 2 (Wednesday)

Morning:

Indigenous peoples, sovereignty, and the State

Sibyl Diver, Earth Systems Program, Stanford

Student panel: Personal perspective on Indigenous sovereignty, food sovereignty, and resilience

- Tahayla Brianne Baker
- Addison Mallott
- John Kisaq Lowndess (to be confirmed)

Background reading/viewing:

- Podcast: Shahbazi, A. 2025. Alaskan villages in a food crisis: Salmon management for the Yukon River at the nexus of needed change (45 min).
- Report: Alliance for a Just Society and Council of Athabascan Tribal Governments, Survival Denied: Criminalization of Native Subsistence Use: https://allianceforajustsociety.org/wp-content/uploads/2013/03/Survival-Denied2.pdf
    - Insightful set of stories by indigenous peoples focused on rights of native subsistence use.
- Anderson, R. 2016. Sovereignty and subsistence: Native self-government and rights to hunt, fish, and gather after ANCSA. Alaska Law Review, vol 33 (2).

    - Legal background on native self-governance and subsistence rights.
- Summary and suggested questions for discussion related to Indigenizing Salmon Science and Management.

Lunch

Afternoon:

Ocean acidification and subsistence foods in Alaska

- Darcy Dugan, Director of the Alaska Ocean Acidification Network

- Optional background reading and viewing:
    - Video: Ocean acidification and the Chugach region's monitoring program (8 min)
    - Webpage: Community sampling for OA in Alaska
    - Brochures: Downloadable outreach materials from the Alaska OA Network (including what is known about the response of specific species to OA)

Recap of ANCSA and ANILCA and their relevance for subsistence food systems in the Alaskan Arctic (Kristen)

Overview and discussion on group project (Roz and Kristen)

Assignment on required reading due by midnight, September 2

September 3 (Thursday)

Morning

Policies and management of subsistence foods, lands, and wildlife in Alaska

- David Hayes, Professor of Practice at the Stanford Doerr School of Sustainability, affiliated faculty at the Stanford Law School; former Special Assistant to President Biden for Climate Policy and former Deputy Secretary and COO of U.S. Department of Interior under Presidents Obama and Clinton.
    - Managing for the Future in a Rapidly Changing Arctic -- Report to the President (2013). Focus on pp. 1-3; 8-21; 26-27; 41-47.
        * This Report to the President covers the Northwest Arctic Borough; although

the document is a bit dated, it offers a good summary of many of the dynamic influences and challenges that are still very much relevant for the Borough.

- U.S. White House, October 6, 2025. Fact sheet: President Donald J. Trump approves Ambler Road Project to unlock Alaska's mineral potential. Focus on pp. 1-3; 6-15; 21-25.
  - Ambler Road decision (proposed 211-mile road into the Ambler Mining District (in the Northwest Arctic Borough). This is a very hot topic right now!
- U.S. Department of Interior, Aprile 19, 2024: National Petroleum Reserve-Alaska news release. Biden-Harris Administration takes critical action to protect Alaska Native subsistence, lands, and wildlife.
- U.S. Department of Interior, November 2012. National Petroleum Reserve in Alaska, Final Integrated Activity Plan/Environmental Impact Statement. Vol 1: Abstract, Exec Summary, Chapters 1-3. (In Files section on Canvas)

Lunch

Afternoon

Arctic research and the political landscape of subsistence foods and resources in Alaska

- Fran Ulmer, Visiting Senior Fellow at Harvard's Belfer School and former Alaska Lieutenant Governor. She served as chancellor of the University of Alaska Anchorage and later held academic positions at Stanford University and Harvard Kennedy School. Appointed by President Obama, she chaired the U.S. Arctic Research Commission, advised the State Department on Arctic science and policy.
  - Ulmer, F. 2014. "Keynote Address: Alaska and the Arctic". Alaska Law Review, vol 31 (2). Published by Duke University School of Law. (in Files on Canvas)
    - Speech by Fran Ulmer the Chair of the U.S. Arctic Research Commission, delivered at the organization's symposium on "North to the Future: Opportunities and Change in Alaska's Emerging Frontiers", University of Alaska. Focus on impact of climate change on the state of Alaska, the Arctic Research and Policy Act, and oil and gas development in Alaska.

Book group: Discussion of book assignment and thoughts for the field (Roz and Kristen)

September 4 (Friday)

Trip Planning (Course Assistants)

September 5 (Saturday)

Free Day

September 6 (Sunday)

Travel to Anchorage, Alaska

September 7 (Monday)

Morning

Indigenous Peoples, Human Rights and the Environment, design thinking for climate adaptation in Indigenous food systems

Will Lomer, Sigluaq Solutions. Joined by his mother, Pearl Lannos (& stepfather, Thomas).

- Background reading/viewing
    - Pearce, T., Ford, J., Willox, A. C., & Smit, B. (2015). Inuit Traditional Ecological Knowledge (TEK) Subsistence Hunting and Adaptation to Climate Change in the Canadian Arctic. ARCTIC, 68(2), 233--245. https://doi.org/10.14430/arctic4475

    - Inuit Resilience, Access and Vulnerability: This website focuses on Will Lomer's early work on Indigenous sovereignty and Inupiat food sovereignty (scroll through the links at the top of the site): https://willamette.digication.com/anth-351-daugherty-houston-lockard-lomer/home
        - This link provides excellent background on cultural identity and values, ANCSA and the creation of ASRC, Inuit led advocacy, and further references

News and stories:

- Even subzero parts of the Arctic are thawing. Ancient salt is the culprit. *(n.d.). Retrieved August 6, 2026, from https://www.science.org/content/article/even-subzero-parts-arctic-are-thawing-ancient-salt-culprit*

- *Baraniuk, C. (n.d.)*. The Iñupiat brothers watching their land melt. *Retrieved January 12, 2022, from https://www.bbc.com/future/article/20211210-the-iupiat-brothers-watching-their-land-melt*

- Food Storage in Permafrost and Seasonally Frozen Ground in Chukotka and Alaska Communities | ARCTIC. *(n.d.). Retrieved May 10, 2025, from https://journalhosting.ucalgary.ca/index.php/arctic/article/view/75259*

- Inuit-defined determinants of food security in academic research focusing on Inuit Nunangat and Alaska: A scoping review protocol. *(n.d.). https://doi.org/10.1177/02601060221151091*

- Permafrost Thaw in Alaska: An Overlooked Climate-Health Crisis | The Belfer Center for Science and International Affairs. *(2025, April 10). https://www.belfercenter.org/research-analysis/permafrost-thaw-alaska-overlooked-climate-health-crisis*

- Schwing, E. (2023, January 30). Alaska whaling communities pilot a project to keep traditional ice cellars frozen. High Country News. http://www.hcn.org/articles/north-climate-change-alaska-whaling-communities-pilot-a-project-to-keep-traditional-ice-cellars-frozen/

- sigluaq high saline content is causing failure—Google Search. *(n.d.). Retrieved September 13, 2023, from https://cryoperu.files.wordpress.com/2014/12/yoshikawa-2013-permafrost-in-our-time.pdf*

Videos:

- Isuma TV - History of the Iñupiat: Nipaa Ilitqusipta, The Voice of Our Spirit, part1
- Isuma TV - The Duck In
- Frontline - Alaska's Vanishing Native Villages
- Isuma TV (search for additional videos of interest)

Afternoon

Fly to Kotzebue

Dinner at the Hotel

NOTE: The final schedule below reflects a change in plans due to a major storm in the Kotzebue region. The trip to Noatak was cancelled and some meetings were held in Anchorage instead. The lunch with China Kantner was also cancelled as she could not return from the bush due to weather.

September 8 (Tuesday)

Morning

Panel Discussion: Multi-agency caribou management. Park Service Building

- Alex Hansen, Alaska Department of Fish and Game
- Kyle Joly, National Park Service
- Wil Wiese, U.S. Fish and Wildlife Service

Lunch with the caribou management panel.

Afternoon:

Students prepare community potluck dinner for subsistence harvesters.

Evening

Potluck Community Dinner and Discussion with Subsistence Harvesters and ANTHC team

Community harvesters and families attending the dinner

- Michael Kramer
- Ross Schaeffer
- Cyrus Harris
- Chris Dankmeyer
- Karman Monigold Schaeffer
- Maija Lukin
- Hope Roberts
- Dolly Hawley
- Saima Chase

September 9 (Wednesday)

Morning

Meet with NANA about land use, food sovereignty, and subsistence

- Liz Qaulluq Cravalho, Director of NANA Lands Program

- Robbie Kirk, NANA Noatak
    - **https://www.nana.com/**
    - **NANA's position on the Ambler Access Road**
    - **Land Ownership in the NANA region**

Afternoon

Meet with Colbath, Outdoors International and Arctic Air, sports hunting transporter

- MeatEater podcast with Jim Dowd

Evening

Fly to Anchorage

Check in at the Wild Birch Hotel

September 10 (Thursday)

Morning

Work on group projects

Lunch

Afternoon

Discussion with Jackie Qatalina Schaeffer, Director of Climate Initiatives, Alaska Native Tribal Health Consortium (ANTHC). She will be joined with her team at ANTHC: Michael Ulroan and Maxim Malavansky

- ANTHC (April 2024). The unmet needs of environmentally threatened Alaska Native villages: Assessments and recommendations (Executive Summary).

- Jackie Qatalina Schaeffer Argues 'Indigenous Infrastructure' Deserves Federal Funding too. Native News Online (July 23, 2025)

- See Files Section of Canvas (Readings/Reports) for reports and more information on Climate Initiatives at ANTHC.

September 11 (Friday)

Morning

Meet with Amy Craver, National Park Service, Denali National Park

- https://www.nps.gov/articles/aps-v14-i1-c3.htm

Videos

- What are we gonna do if we don't live off the land? https://www.nps.gov/media/video/view.htm?id=C2D5DAA7-211D-4811-A0A5-0C79F8A44B9F
- https://m.youtube.com/watch?v=lkbaG1dh2VQ

Lunch

Afternoon

Hike up Flat Top Mountain (led by Roz, Kristen, and Wally)

Evening

Dinner in Anchorage

September 12 (Saturday)

Free Day

September 13 (Sunday)

Train to Denali

September 14 (Monday)

Denali National Park tour, visitor center, and hiking

- Ellie Ross, NPS
- Kent Mauney, NPS

Evening discussion: The impacts of climate change on Denali mountaineering (Wally Naylor)

September 15 (Tuesday)

Morning

Alaska Native Participation in Policy Processes and Local Food security and sovereignty

- Eva Dawn Burke, Community Food Activist, and Tribal Seat on North Pacific Fishery Management Council Advisory Panel Tribal Seat
    - Anna Canny, KTOO, 2024. Climate change makes farming easier in Alaska. Indigenous growers hope to lead the way. KSKA Morning Edition.
    - Max Graham, 2021. Will a Native-led initiative spur an agricultural revolution in rural Alaska? *High Country News* (May 28).
    - Eva Dawn Burk's testimony to the Board of Fisheries

Lunch

Afternoon

- Tom Zimmer, Calypso Farms and Ecology Center
    - Calypso Farm and Ecology Center website

September 16 (Wednesday)

Train to Anchorage

September 17 (Thursday)

Morning

Free time to work on group presentations

Afternoon

Free Time to Work on Presentations

Evening

Presentations to the Stanford-Alaska Alumni Association and other invited guests

- Wild Birch Hotel, Anchorage: 5-8 PM
- Dinner: Students and CAs

September 18 (Friday)

Fly back to Stanford

ASSIGNMENTS AND GRADING

PRE-COURSE ASSIGNMENTS

Summer Reading Assignments. Due by midnight Wednesday September 2 and should be submitted on Canvas. Look under "Assignments" on Canvas to view the assignment. We will discuss your input on September 3.

COURSE ASSIGNMENTS

STUDENT BRIEFINGS ON FIELD DAYS:
For each day of the field course that we are in Alaska, students will pair up and give a briefing for the rest of the course participants on the day's events, e.g., a brief background on the speaker(s) or tours we are embarking on, as well as a description of what clothes and other gear to bring with you.

END-OF-DAY RECAP:
At the end of each day, students should be prepared to answer questions such as: What was the most important thing you learned today? What surprised you? What parts of the visit left you feeling encouraged, discouraged, or inspired? What questions linger in your mind?

COURSE-LONG RESEARCH PROJECT: The course project is designed to enhance students' understanding of food security and food sovereignty in Northwest Alaska amid the backdrop of climate change, social-ecological systems, and Indigenous and Western knowledge and governance systems. Based on the course readings, lectures, observations, and informal conversations with harvesters, scientists, and managers, the students will represent different (and sometimes opposing) viewpoints of caribou harvesters in Northwest Alaska in a mock Federal Subsistence Board.

Research Project Description:

The Federal Subsistence Board (FSB) is the decision-making body that oversees the management of subsistence resources in Alaska on federal public lands. The Board is composed of the U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Indian Affairs, the U.S. Forest Service, six members of the public that represent rural subsistence users, and the Federal Subsistence Board chair (appointed by the secretaries of the Interior and Agriculture).

Project scenario:

Caribou populations in Northwest Alaska (the Western Arctic Caribou Herd) have consistently declined in population numbers over the past two decades. The Alaska Department of Fish and Game recorded a peak of 490,000 caribou in the herd in 2003, as of 2025 there are 120,000 animals. There are also low cow (female caribou) survival rates and low calf recruitment. The Western Arctic Caribou Herd Working Group has classified the population as critical and declining. For many years the Western Arctic Caribou Herd (WACH) had a harvest limit of 5 caribou a day throughout the year for residents of Northwest Alaska. This limit has recently been limited to 15 per year, with calls for only four per year by the Western Arctic Caribou Herd Working Group and others.

Imagine (for this project), there is a special action FSB meeting called to identify the management actions that should be implemented for the next two years to ensure sustainable caribou populations while protecting harvest opportunities?

Project objectives:

You will be asked to represent members of the public (e.g., subsistence harvesters, sport hunters, conservation agencies) that are interested in submitting proposals to change federal subsistence regulations around caribou management, and a group of Board members will ask question about these proposal, make comments, and suggest analysis for future review of these proposals. The objective of this project is not to emulate an entire FSB process fully, but rather to consider different public viewpoints, long-term sustainability of animal populations, cultural legacies, livelihoods, food sovereignty, and enforceability of regulations.

The final mock FSB will be held in Anchorage on September 17th at our final reception and will be attended by Stanford alumni who live in the area as well as other guests involved in the course. We will share more detailed information about this project at the beginning of the course and divide into project groups before we leave for Alaska from the Stanford campus.

A list of references related to the Federal Subsistence Board can be found in the Files section on Canvas under "Final Group Project".

COURSE PARTICIPATION: We understand and value that students like to participate in various ways (i.e. writing vs. speaking), but we ask that you all make an attempt to engage in group discussion with other students and with the speakers. We want to create a participation environment where all viewpoints are respected and welcome. Your participation evaluation will reflect your engagement with the instructors, other students, and the community speakers scheduled to talk. This means being on time to each event and ready with the appropriate gear, being curious, asking questions, and thinking deeply about the themes presented in the course.

JOURNALING: While not required and ungraded, we strongly encourage all students to keep a journal of their experiences while in Alaska.

COURSE GRADING:
Course grading is CR/NC.

Instructors and Staff:

The course will be led by Roz Naylor, William Wrigley Professor of Global Environmental Policy, Emeritus, and Founder of the Center on Food Security and the Environment at Stanford. Her research focuses on policies and practices to improve food security and protect the environment on land and at sea. She has been involved in numerous field-level research projects around the world, including Alaska, and has published widely on issues related to the economics of food systems, food policy, food-energy-water interactions, climate, and blue foods (fisheries and aquaculture).

Dr. Kristen Green, PhD Stanford University (E-IPER) (2021), will be an associate instructor. Her PhD thesis focused on "Respect the land: Pathways to resource stewardship and resiliency in a changing Arctic." Dr. Green is an interdisciplinary social scientist with expertise on coastal communities' strategies for climate adaptation. She has 15 years of experience working with Indigenous harvesters in Alaska's Northwest Borough and other regions to support food sovereignty and holistic approaches to ecosystem well-being. She is a resident of Anchorage, Alaska, where she lives with her family.

Corinne Thomas is the education manager at the Bill Lane Center for the American West. She is responsible for managing the interdisciplinary, spring American West course, the Center's Sophomore College course, and a comprehensive internship program which places students at western organizations to work in fields such as history, literature and archives; politics and policy; ecology and conservation; and finance, fisheries, and regenerative agriculture.