**Collaborative fisheries management with Indigenous Peoples**

**in the Pacific Northwest**

**Why is this course needed?**

Across the university there are only a few classes that explore the intersection of Indigenous Peoples and the environment. Most of them are undergraduate level American Indian Studies courses. There is only one graduate level course that has been offered by SMEA (SMEA 572) that focuses on environmental justice and Indigenous activism. There remains a gap in Indigenous theory and scholarship related to the practice of natural resource management and co-management within the College of the Environment. AIS offers two graduate courses that are relevant to this topic, Indigenous Research Methodologies and Indigenous Theory. However, both are application-based and highly restrictive in who is admitted.

*There is high interest among students for a course on this topic.* This is demonstrated by the high number of attendees for two events I have helped organize in the fall of 2024, the screening of Fish Wars (>50 CoENV attendees) and the 2024 Bevan Symposium on Sustainable Fisheries: Reflections on Tribal Fisheries and Co-Management 50 years after the Boldt Decision: Bevan Symposium (>60 CoENV affiliated attendees, limited due to event capacity). I have presented a DEI training for the past three years at the incoming graduate student orientation for SAFS and have received positive feedback from student attendees. Many of my fellow graduate students in SAFS have expressed interest in a class that covers these topics, and interest in engaging with this type of work through their research here at SAFS, but acknowledge the gap in their education that does not provide them with the knowledge and skills required to achieve that.

**Background for the course**

This course is based on an independent study course I developed in collaboration with Dr. Matthew Anderson at the Ohio State University. My Biology major curriculum at OSU contained the same knowledge gaps I describe above, where Indigenous Peoples were absent from my environmental science coursework. However, I knew that the research I wanted to conduct, specifically as a graduate student here at SAFS, would require the skills I developed through this independent study course. It was influential in forming my research approach and methodology, and I have received positive feedback from Indigenous collaborators that reflect the work I put in to designing this course. I taught myself the skills I needed to do collaborative fisheries management research in the Pacific Northwest. My objective is to bring that experience to SAFS so that students are not faced with the same challenges.

**Course Syllabus**

**Overview**

The state of Washington is situated on the ancestral homelands of 29 federally recognized tribes that have stewarded these lands and waters since time immemorial. Their rights to fish and environmental stewardship were affirmed by the Boldt Decision in 1975. This ruling ushered in an era of formal salmon co-management between state and Tribes. This places Washington at the cutting edge in many arenas such as collaborative science, upholding tribal sovereignty through co-management, and spanning the boundary of western and Indigenous ways of knowing to address pressing environmental problems.

Co-management is not a simple process. It requires collaborative research and management partnerships between non-Indigenous stakeholders and Tribes that hold very different worldviews. This course aims to provide students with collaborative research skills and foundations in Indigenous research ethics and methodologies that will benefit future careers in fisheries management in Washington, and beyond. The topics that will be covered in this course draw from a growing field of theoretical and applied research that sees the value in bringing diverse ways of knowing into environmental stewardship, as well as interrelated frameworks of environmental justice, food sovereignty, and Indigenous sovereignty.

In this course, students will engage with Indigenous scholarship across a range of topics related to Indigenous environmental stewardship and research. Students will be expected to think critically about their own positionality and the ways it influences their approach to research. Through participation in discussion and course readings, students will develop the knowledge to ethically engage with Indigenous communities through research. Students will also have the opportunity to apply the skills they have learned in a practical way through in-class activities and a final project that will ask students to analyze a case study of collaborative research between university partners and an Indigenous community, or develop a plan to integrate what they have learned into their own research.

**Course Objectives**

· Engage with Indigenous scholarship related to environmental stewardship, and research ethics and methodologies.

· Participate in weekly discussions and activities to learn from their peers and develop a deeper understanding of core concepts

· Apply skills taught in this course in a collaborative research scenario (their own thesis work, or analyzing a case study)

· Produce templates for written communications with Indigenous collaborators

**Meeting Times and Locations**

TBD

**Instructor**

Nicole Doran (email: ncdoran@uw.edu)

PhD Student, School of Aquatic and Fishery Sciences

**Potential Guest Speakers**

\*Ashley Nicole Lewis (Quinault)

\*Vanessa Castle (Lower Elwha Klallam Tribe)

Kasey Stirling (Lower Nicola Indian Band)

Mike Buck (Yakama Nation)

Leah Nez (Navajo Nation)

**\***Preferred guest speakers that will receive the first invitation

**Course Structure**

This course will be a seminar-style format with up to 20 students. We will meet once per week for two hours.

**Readings and pre-class discussion posts**

Before each class session, students will be provided with 2-3 papers to read, as well as guided reading questions to help them understand the material, and think critically about how it applies to their own work. Students may post their responses to the guided reading questions on the Canvas discussion board before class.

**Classroom Discussion**

Class time will consist of an open discussion on the readings with prompts from the instructor to begin the conversation.

**Writing practice and post-class discussion posts**

After class, students will be asked to reflect on what they have learned in the form of a brief written response to a prompt on the Canvas discussion board. While not required for credit, three of these are important for the final project (see below). By completing them weekly, students will have the opportunity to receive feedback from the instructor and their peers and make progress on their final project!

**Final Project**

Students will give a 10-minute presentation that walks through the first steps of conducting collaborative research with Indigenous partners. Students may work with the instructor to develop a project idea if they do not have a relevant thesis project already. The objective for this project is to give students an opportunity to apply concepts they have learned in the course in their own work, and develop their own “tool kit” or resources for doing this work in the future.

*Project Components:*

Before the presentation:

* A mock-email or email template to send to potential collaborators (post on Canvas)1
* A brief research summary or proposal for Tribal Council/equivalent authority that would grant approval to research projects1

During the presentation:

* A positionality statement1
* Introduction—the political/cultural context of the system you work in. (i.e. whose lands are you working on? Which communities are you engaging with? What are their histories and relationship with the other actors in the system?)
* Methods (What methods would you be interested in using to address this problem? What would be your approach to discussing it with collaborators and executing it?)

o Relationship building should be a part of this section!

o If you are using tribal data or will be gathering data, describe your approach to implementing data sovereignty.

* Educational outreach component (i.e. how would you ensure the important information is relayed to the community, are you engaging elders/youth/other groups in your work?)
* Longevity: How can one project or relationship outlast your time as a graduate student?
* Discussion and self-reflection

o How was designing a project with Indigenous collaborators different from your normal approach to science (if it was)?

o What difficult questions did you have to ask yourself in this process? (E.g. about your positionality, intentions, knowledge gaps, etc.)

1 These are the weekly written reflections that will be posted by students on the Canvas discussion board. I will respond to the research proposal for Tribal Council by setting realistic boundaries and limitations on their proposed project. For the final project, they will be expected to consider their approach to respecting those boundaries. My intention with this is to make students practice hearing the word “no”, and show that their response does not have to be shutting down a project, but rather figuring out a way to collaborate in a way that respects boundaries and practices consent.

**Evaluation**

This will be a credit/no credit course. Credit will be given based on weekly attendance and the delivery of final presentations. Students cannot have more than two unexcused absences from class and receive credit. The pre- and post-class discussion posts are meant to provide students with multiple ways of engaging with the course material and not an assignment.

**Classroom conduct**

I am dedicated to providing a welcoming and supportive learning environment for all students, regardless of their background, identity, physical appearance, or manner of communication. Any form of language or behavior used to exclude, intimidate, or cause discomfort will not be tolerated. All course participants (instructor, students, guests) are expected to abide by the [SAFS Code of Conduct](https://fish.uw.edu/wp-content/uploads/sites/29/2022/11/SAFSCodeOfConduct_Sept2022.pdf). In order to foster a positive and professional learning environment, I ask the following:

* Please let me know if you have a name or set of preferred pronouns that you would like me to use; and
* Please let me know if *anyone* in class says something that makes you feel uncomfortable.

Classroom norms will be developed in the first meeting of the course, but these core tenets are non-negotiable (borrowed from Dr. Jean Dennison, American Indian Studies):

* Come into this space as a learner, not a knower. The goal should not be to prove to me or your classmates what you know, but what you are learning from class materials and discussions.
* Treat new information as a gift, not a challenge of your sense of self.
* Name where your knowledge is coming from and avoid presenting it as a generalized truth. E.g. If you are referencing Indigenous Knowledge, be specific about what community that knowledge is from and where you learned it.
* Seek to understand how knowledge maps on to power, privileging those voices in the room that are most often silenced in educational spaces
* Practice your active learning skills, putting away phones, or devices if you notice they take away from your active listening. Note taking or other tools for active listening are strongly encouraged.

Although I strive to create and use inclusive materials in this course, there may be overt or covert biases in the course material due to the lens with which it was written. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated.

**Please note**: If you believe you have been a victim of an alleged violation of the [Student Conduct Code](https://www.washington.edu/admin/rules/policies/WAC/478-121TOC.html) or you are aware of an alleged violation of the [Student Conduct Code](https://www.washington.edu/admin/rules/policies/WAC/478-121TOC.html), you have the right to [report it to the University](https://www.washington.edu/cssc/for-students-2/).

**Access & accommodations**

All students deserve access to the full range of learning experiences, and the University of Washington is committed to creating inclusive and accessible learning environments consistent with federal and state laws. If you feel like your performance in class is being impacted by your experiences outside of class, please talk with me.

If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (*e.g.*, mental health, learning, vision, hearing, physical impacts), you are welcome to contact DRS at 206-543-8924 or via email or their [website](https://depts.washington.edu/uwdrs/). DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS.

**Religious observances**

Students who expect to miss class or assignments as a consequence of their religious observance will be provided with a reasonable accommodation to fulfill their academic responsibilities. Absence from class for religious reasons does not relieve students from responsibility for the course work required during the period of absence. It is the responsibility of the student to provide the instructor with advance notice of the dates of religious holidays on which they will be absent. Students who are absent will be offered an opportunity to make up the work, without penalty, within a reasonable time, as long as the student has made prior arrangements.

**Academic integrity**

Faculty and students at the University of Washington are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. Plagiarism, cheating, and other academic misconduct are serious violations of the [Student Conduct Code](https://www.washington.edu/cssc/for-students/academic-misconduct/). I have no reason to believe that anyone will violate the Student Conduct Code, but *I will have no choice* but to refer any suspected violation(s) to the College of the Environment for a Student Conduct Process hearing. Students who have been guilty of a violation will receive zero points for the assignment in question.

**Other Resources**

**Mental Health**

**If you are experiencing a life-threatening emergency, please dial 911.**

[**Crisis Clinic**](http://www.crisisclinic.org/): Phone: 206-461-3222 or toll-free at 1-866-427-4747

[**UW Counseling Center**](https://www.washington.edu/counseling/services): Phone: 206-543-1240 ([Immediate assistance](https://www.washington.edu/counseling/services/crisis/))

[**Let’s Talk**](https://wellbeing.uw.edu/virtual-lets-talk/)

[**Hall Health Mental Health**](https://wellbeing.uw.edu/unit/hall-health)

[**SafeCampus**](https://www.washington.edu/safecampus/)

**Schedule**

**Unit 1: Indigenous environmental stewardship and justice**

Learning objectives:

· Develop an understanding of the cultural, political, and legal contexts of fisheries management in Washington State

· Compare and contrast western and Indigenous approaches to environmental stewardship

· Evaluate diverse approaches to Indigenous Environmental Justice and be able to discuss how they lend themselves to *Indigenous sovereignty*

**Week 1 Indigenous Environmental Stewardship**

Pre-class discussion post: Introduce yourself! Please share your name, pronouns, a one-sentence summary of your research interests, and what you are hoping to learn in this course. Guided reading questions are posted on Canvas (optional).

*Potential Readings:*

Atlas, William I., et al. "Indigenous systems of management for culturally and ecologically resilient Pacific salmon (Oncorhynchus spp.) fisheries." *BioScience* 71.2 (2021): 186-204.

Coté, Charlotte. “Cu̓umaʕas: The River That Runs through Us, the Communal Fish Pot.” *A Drum in One Hand, a Sockeye in the Other: Stories of Indigenous Food Sovereignty from the Northwest Coast*, University of Washington Press, 2022, pp. 56–86. *JSTOR*.

Classroom Discussion Objectives:

* Introductions and establishing a classroom culture of care
* I would begin class by providing an overview of the social/poltical/legal context of tribal sovereignty in the United States. I would begin by constructing a timeline for the key eras of Indian Policy (treaty-making, removal, allotment, Indian wars, assimilation, termination, self-determination) to lay the groundwork for what we need to be thinking about when considering Indigenous histories and trust-building.
* Create a shared understanding of tribal sovereignty, cultural sovereignty, and settler colonialism that we will use throughout the course

Post-class discussion post: Please provide a bulleted list of 1-3 community norms you would like the class to adopt in future weeks

**Week 2 Environmental (In)Justice**

Pre-class discussion post: Last week we talked about how food is sometimes more than just food for cultural, spiritual, personal reasons, etc. What is a food that is important to you?

Guided reading questions are posted on Canvas (optional).

*Potential Readings:*

McGregor, Deborah, Steven Whitaker, and Mahisha Sritharan. "Indigenous environmental justice and sustainability." *Current Opinion in Environmental Sustainability* 43 (2020): 35-40.

Whyte, K. P. (2011). The recognition dimensions of environmental justice in Indian country. *Environmental Justice*, *4*(4), 199-205.

Parsons, M., Fisher, K., Crease, R. P., Parsons, M., Fisher, K., & Crease, R. P. (2021). Environmental justice and indigenous environmental justice. *Decolonising blue spaces in the Anthropocene: Freshwater management in Aotearoa New Zealand*, 39-73.

Classroom Discussion Objectives:

* Examine the ways settler colonial processes are related to environmental injustice

o I would return to the timeline introduced in the previous class to encourage students to think through how settler colonialism re-defined “place” for Indigenous Peoples and disrupted peoples’ relationship with their Lands.

* Consider the ways “environmental justice” is defined and realized by Indigenous Peoples

Post-class discussion post: Did the readings resonate with any other examples of environmental (in)justice that you are familiar with? Please focus your response on Indigenous agency and sovereignty!

**Week 3: Indigenous Resistance and Co-management**

\*Guest Speaker (Ashley Nicole Lewis)

Pre-class discussion post: Post any questions you have for our guest speaker.

Guided reading questions are posted on Canvas (optional).

*Potential Readings:*

Parham, Vera. "" It Was a Spearhead of Change" The Fish-Ins of the Pacific Northwest and the Boldt Decision, Shifting Native American Protest Identities in the 1960s and 1970s." *Native Studies Review* 22 (2013).

Wilkinson, C. (2024). “Co-management” and “The Boldt Decision at Fifty”. In *Treaty justice: The Northwest tribes, the Boldt decision, and the recognition of fishing rights.* University of Washington Press.

Class discussion objectives:

* Ashley Lewis (Quinault) is a Phd student studying history. Her research focuses on Indigenous resistance and fishing rights in the early twentieth century. This is important because it establishes the long history of Tribes’ fight for fishing rights that pre-dated the official “Fish Wars” and Red Power Movement of the 1960’s and 1970’s.

Post-class discussion post: Please write a thank you message for our guest speaker, and I will send them a message from the class!

**Week 4:** **Damns and Treaty Rights**

\*Guest speaker (Vanessa Castle)

Pre-class discussion post: Post any questions you have for our guest speaker.

Guided reading questions are posted on Canvas (optional).

Potential Readings:

*Return of the River* documentary

Newspaper articles about the dam removals and 2023 Lower Elwha Klallam cultural salmon harvest

Class discussion objectives:

* Vanessa Castle (Lower Elwha Klallam Tribe) is a wildlife biologist and fisherwoman. She presented at a Bevan seminar in 2024. I am interested in hearing more about the Tribe’s role in dam removal, hope for the future of the un-dammed river, and how the LEKT has worked collaboratively with non-Indigenous partners to co-manage the Elwha. She has also done a lot of work with cougars, which might be a nice break from salmon!

Post-class discussion post: Please write a thank you message for our guest speaker, and I will send them a message from the class!

**Unit Two: Collaborative Research Ethics**

Learning Objectives:

* Apply collaborative research “best practices” through in-class activities (e.g. writing an email template to reach out to collaborators) and final project proposal
* Develop an understanding of different frameworks for collaborative research with Indigenous Peoples and be able to discuss how an academic researcher’s positionality intersects with those frameworks

**Week 5: Collaborative Research with Indigenous Peoples**

Pre-class discussion post: Were you here for Marco Hatch’s or Andrea Reid seminars in 2023/2024? If so, please tell your classmates what you remember! If not, have you encountered their work before in other classes? Guided reading questions are posted on Canvas (optional).

Potential Readings:

Reid, Andrea J., et al. "“Two‐Eyed Seeing”: An Indigenous framework to transform fisheries research and management." *Fish and Fisheries* 22.2 (2021): 243-261.

Hatch, Marco, et al. "Boundary spanners: a critical role for enduring collaborations between Indigenous communities and mainstream scientists." *Ecology and Society* 28.1 (2023).

Classroom discussion objectives:

* Discuss the role of power and positionality in scientific research, and the potential implications it has in research collaborations

Post-class discussion post: Positionality statement (more guidelines will be provided on Canvas)

If you do not feel comfortable sharing your statement on Canvas, feel free to email it to the instructor for feedback.

**Week 6:** **Indigenous Research Methodologies**

Pre-class discussion post: Do you have an idea for what your final project will be about?

Guided reading questions are posted on Canvas (optional).

PotentialReadings:

Tuhiwai Smith, Linda. “Twenty-five Indigenous Research Projects.” *Decolonizing Methodologies: Research and Indigenous Peoples,* second edition. Zed Books Ltd, 2012, pp. 143-164.

Esquible, J. (2024). *Salmon, Stewardship, and Indigenous Livelihoods: Bridging Knowledge Systems and Reshaping Research Relationality in the Kuskokwim Region of Southwestern Alaska* (Doctoral dissertation, University of Alaska Fairbanks).

Classroom discussion objectives:

* Discuss the diversity of Indigenous research methodologies presented in the readings, and how they might differ from western methods we are more familiar with
* Connect the research methodologies back to the previous class sessions discussion by thinking through the steps of trust- and relationship- building that is required of western scientists to be able to do this work ethically.

Post-class discussion post: Post a draft email that you would send to potential collaborators to initiate a research partnership (more guidelines will be provided on Canvas)

**Week 7: Indigenous Knowledge Systems**

Pre-class discussion post: Have you heard of traditional ecological knowledge (TEK) before? If so where—classes, research talks, papers? What do you think TEK is? This is not a trick question! Guided reading questions are posted on Canvas (optional).

Potential Readings:

Chisholm Hatfield, Samantha, et al. “Indian time: time, seasonality, and culture in Traditional Ecological Knowledge of climate change.” *Ecological Processes* 7.1 (2018): 1-11.

Braiding Sweetgrass

Kimmerer, Robin. “Restoration and reciprocity: the contributions of traditional ecological knowledge.” *Human dimensions of ecological restoration: Integrating science, nature, and culture* (2011): 257-276.

Ramos, S. C. (2018). Considerations for culturally sensitive traditional ecological knowledge research in wildlife conservation. *Wildlife Society Bulletin*, *42*(2), 358-365.

Classroom discussion objectives:

* Dismantle stereotypes and common biases about TEK held by western scientists engaging with Indigenous communities

Post-class discussion post: Please post a brief (max. 1 page) research summary or proposal for your final project as if you were presenting it to Tribal Council or another authority figure that would be “approving” your work. More guidelines are posted on Canvas.

**Week 8: Indigenous Knowledge Systems II**

Pre-class discussion post: Check for the instructor’s response to your previous post-class discussion post. What boundaries have been put in place for your final project?

Guided reading questions are posted on Canvas (optional).

Potential Readings:

Gauvreau, Alisha M., et al. "“Everything revolves around the herring” the Heiltsuk–herring relationship through time." *Ecology and Society* 22.2 (2017).

Kozich, Andrew T., et al. "Walleye Ogaawag spearing in the Portage Waterway, Michigan: integrating mixed methodology for insight on an important tribal fishery." *Journal of Contemporary Water Research & Education* 169.1 (2020): 101-116.

Classroom discussion objectives:

* Evaluate the use of language around “traditional ecological knowledge”, “Indigenous Science”, “Indigenous Ways of Knowing” etc.What are the differences between these terms? What direction is the conversation moving in?

Post-class discussion post: How have the past two weeks of readings and in-class discussions changed your perceptions on Indigenous Knowledge Systems? How can we continue to dismantle stereotypes and biases we observe moving forward in professional spaces?

**Week 9: Data Sovereignty**

Pre-class discussion post: How are you feeling about the final project? Is there something that you are struggling with? Do you have any questions for your peers or the instructor?

Guided reading questions are posted on Canvas (optional).

Potential readings:

Walter, Maggie, and Michele Suina. "Indigenous data, indigenous methodologies and indigenous data sovereignty." *Educational Research Practice in Southern Contexts*. Routledge, 2023. 207-220.

Carroll, Stephanie, et al. "The CARE principles for indigenous data governance." *Data science journal* 19 (2020)

Class discussion objectives:

* Discuss the CARE Principles, OCAP Principles, and 4 R’s framework (I will introduce the ones not discussed in the readings) and how they build a foundation for ethical research with Indigenous Peoples. What role do academic researchers have in data sovereignty?

Post-class discussion post: What do you think about the potential contradictions between the open data movement and data sovereignty? In what contexts do you think one or the other is appropriate? Can you think of a situation where there is room for both?

**Week 10: Final Presentations I**

Students will give a 10-minute presentation, to be followed by an open discussion with all students for the purpose of providing feedback and idea-sharing.

**Finals Week: Final Presentations II**

* Students will give a 10-minute presentation, to be followed by an open discussion with all students for the purpose of providing feedback and idea-sharing.
* Any remaining class time will be spent wrapping up the course, and reflecting on what we have learned.

Backup plan if we do not get more than 10 students signed up: invite Leah Nez to be a guest speaker on research ethics during Week 10.

**Additional Readings and Resources**

\*Under Construction! But I plan on selecting a few additional readings for each topic if a student wants to explore further, and linking additional resources to continue their learning or get involved in things to put their learning into practice. (E.g. the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, community garden initiatives, community events, Food Sovereignty Symposium, etc.).