Interdisciplinary Research Methods: Seminar
BIOL/NRM F668 001, CRN 32875/33374
Spring 2024
1 credit, Pass/Fail

Prerequisites: None, but you are welcome to reach out to the instructor to discuss how the course would benefit you

Meeting Time/Place: Tuesday 3:00- 4:30pm
Hybrid: in-person OR online
Murie 230
Zoom link:
https://alaska.zoom.us/j/81917290452?pwd=WER5c0szcFgrNHNtK2ZKWkJHYWoxdz09

Instructor:

Dr. Joanna Young
Research Associate
International Arctic Research Center
Phone: 907-474-7148
Email: jcyoung6@alaska.edu

Office Hours: Arranged by appointment.

Catalog Description:
This course provides an overview of research methods, frameworks, and strategies used in interdisciplinary social-biogeophysical research. Students will gain exposure to various methods for addressing their research questions. It will also benefit students planning to pursue a career requiring collaboration outside their discipline and/or use of broad research tools.

Full Course Description:
This course aims to provide graduate students with an overview of research methods, frameworks, and collaboration strategies used in interdisciplinary research projects that span social and biogeophysical sciences. The first part of the course explores the dynamics of interdisciplinary research through discussion of the literature on topics such as conceptual frameworks for socio-ecological research, collaborative teamwork, data sharing and publication agreements. The second part of the course features guest lectures and hands-on practice using a particular method each week from social or natural science disciplines. Both traditional and emerging methods will be covered, including survey research design, qualitative data analysis, community-based research, using GIS, and using climate data and models, or other topics desired by the students. Additionally, students will learn about courses and resources on and off campus for learning more about each research methodology.

This course was first offered in 2010 as the result of years of discussion among students formerly in the Resilience and Adaptation Program and Alaska EPSCoR. It has been developed especially for students conducting interdisciplinary research. The class will benefit students early in their graduate degree who want exposure to a variety of methods for addressing their research questions. It will also benefit students at any stage of their graduate degree who plan to pursue a career that requires collaboration with people from outside their discipline, or the ability to utilize a broad array of research tools.

Course Objective:
To provide students with a basic understanding and skills in research methods used in the social and natural sciences.

As an outcome of this course, students will be able to:

- Understand the basic theory and assumptions of methods used in a broad range of disciplines
- Perform some of the skills commonly used to design projects, collect data, analyze data, and communicate/use research outcomes
- Identify UAF courses, personnel, and other resources for learning about a particular method in depth
- Better comprehend and communicate with researchers outside their primary discipline

Instructional Format:
During most classes, a guest instructor with expertise in a particular research method will teach each 1.5-hour seminar. Most seminars will include lecture, discussion, and perhaps another interactive component such as hands-on practice of a particular research method. Several class sessions are also dedicated to skill-building on conceptual frameworks and design of interdisciplinary research.

Required Reading:
Reading materials will be placed in a shared Google Drive folder entitled "NRM/BIOL F668 - Spring 2024." Students will be notified by email when new readings are uploaded.

Recommended Text:
While not required, this book is a good resource for those who would like to learn more:
Cresswell, J.W. 2018 (5th ed). Research design: Qualitative, quantitative and mixed methods design.

Attendance Policy & Grading:
This course will be graded as Pass/Fail. All seminar sessions will be recorded. Attendance and participation in-person or online in 8 of the 10 seminars is expected in order to pass the course, and you are expected to watch recorded presentations if a seminar is missed. If you are expecting to miss more than two class meetings, please contact me to discuss alternative options.

Students are asked to arrive on time and give focused attention to course activities, lectures, and discussions. Writing emails or texts during class is strongly discouraged, and active participation in each seminar makes the class more enjoyable for everyone!

The last class (Session 10), will involve up to 10 minutes of presentation from each student on how they are conceptualizing their research based on applicable interdisciplinary frameworks and methods.

Technical Requirements for Course:
Students will need regular access to a computer and the internet to join class by Zoom (remote participants) and to access online materials in Google Drive (all participants). Students will need to download course materials and upload assignments. If you have any constraints on access to technology, please let me know and we can work together to find a solution.

Course Schedule

Session	Date	Topic	Speaker
1	Jan. 16	Course introduction and syllabus; Introduction to conceptual frameworks for socio-ecological systems research	Joanna Young
2	Jan. 23	Considerations for interdisciplinary, collaborative teams (teamwork, data sharing, and authorship)	Joanna Young
3	Jan. 30	Integrating visual arts + natural sciences	Mary Beth Leigh
4	Feb. 6	Climate data & tools	TBD
5	Feb. 13	Citizen Science research methods	TBD
6	Feb. 20	Survey research design	Peter Fix
7	Feb. 27	Co-production of knowledge	TBD
8	Mar. 5	Using remote sensing tools	TBD
	Mar. 12	NO CLASS - Spring Break	
9	Mar. 19	**Student choice topic**	TBD
10	Mar. 26	Student presentations	You!
	Apr. 2	Flex	

Past Student Choice topics:

Qualitative content analysis (Tracie Curry)
Qualitative methods to assess local knowledge (Kimberley Maher, DNR)
Photo-voice method for action research (Ellen Lopez)
Videography (Maya Salganek)
Program design and evaluation (Angela Larson, Goldstream Group LLC)
Cross-cultural research & thinking in multiple worldviews (Richard Hum)
Historical study research methods: Why we pay attention to history, historic documentation, and interpretation (Bill Schneider)

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, visit: https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/.

Disability Services Statement:

I will work with the Office of Disability Services to provide reasonable accommodation to students with disabilities.

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

Student Academic Support:

- Speaking Center (907-474-5470, uaf-speakingcenter@alaska.edu, Gruening 507)
- Writing Center (907-474-5314, uaf-writing-center@alaska.edu, Gruening 801)
- UAF Math Services, uaf-traccloud@alaska.edu, Chapman 305 (https://www.uaf.edu/dms/mathlab/, for math fee paying students only)
- Developmental Math Lab (Gruening 406, https://www.uaf.edu/deved/math/)
- 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/students/index.php

Student Resources:

- Disability Services (907-474-5655, uaf-disability-services@alaska.edu, Whitaker 208)
- Student Health & Counseling [6 free counseling sessions] (907-474-7043, https://www.uaf.edu/chc/appointments.php, Gruening 215)
- Office of Rights, Compliance and Accountability (907-474-7300, uaf-orca@alaska.edu, 3rd Floor, Constitution Hall)
- 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:

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For more information, contact:

UAF Office of Rights, Compliance and Accountability

1692 Tok Lane, 3rd floor, Constitution Hall, Fairbanks, AK 99775
907-474-7300
uaf-orca@alaska.edu

For more/other help or guidance in navigating the crazy world of academia and graduate school, please reach out!