

Interdisciplinary Research Methods: Resilience Seminar II
BIOL/NRM F668 001, CRN 39649/39624
Spring 2022
1 credit, Pass/Fail

Meeting Time: Tuesday 3:40- 5:10pm
Zoom link:
<https://alaska.zoom.us/j/88501075143?pwd=TEtsNDAYTGlvXJSbm8rcE1Ub3BkZz09>

Instructor:

Dr. Joanna Young Postdoctoral Fellow
International Arctic Research Center
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Office Hours: Arranged by appointment.

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 2022](#)." Students will be notified 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.](#)

[Can be rented on Amazon for \$21, or purchased new for \$38]

Attendance Policy & Grading:

This course will be graded as Pass/Fail. Attendance and participation in 8 of the 10 seminars is expected in order to pass the course. If you are expecting to miss more than two class meetings, please contact me to discuss alternative options. All seminar sessions will be recorded.

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 access online materials in Google Drive and to join class via Zoom. Students will need to download course materials and upload assignments.

Course Schedule

Session	Date	Topic	Speaker
1	Jan. 18	Course introduction and syllabus Introduction to interdisciplinary research and conceptual frameworks	Joanna Young
2	Jan. 25	Considerations for interdisciplinary, collaborative teams (teamwork, data sharing, and authorship)	Katie Spellman, Laura Oxtoby, Dana Brown
3	Feb. 1	Methods for community-based research	TBD
4	Feb. 8	Survey research design	Pete Fix
5	Feb. 15	Integrating visual arts + natural sciences	Mary Beth Leigh
6	Feb. 22	Qualitative content analysis	Tracie Curry
7	Mar. 1	Understanding and using climate data	Nancy Fresco
	Mar. 8	NO CLASS - Spring Break	
8	Mar. 15	Using GIS	Dana Brown
9	Mar. 22	Student choice	TBD
10	Mar. 29	Student presentations	You!
	Apr. 5	Flex date	

Past Student Choice topics:

Citizen Science research methods (Elena Sparrow)

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 (Richard Hum)

Historical study research methods: Why we pay attention to history, historic documentation, and interpretation (Bill Schneider)

Thinking in multiple worldviews (Richard Hum)

STUDENT PROTECTIONS STATEMENT

UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination ([Title IX](#)). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: <https://uaf.edu/csrr/>

I will work with the [Office of Disability Services](#) to provide reasonable accommodation to students with disabilities. Contact information: uaf-disability-services@alaska.edu Phone: 907.474.5655 or TTY: 907.474.1827 or Fax: 907.474.5688. I am committed to keeping all conversations about disabilities and accommodations strictly confidential.

SUPPORT SERVICES

The Student Handbook (www.uaf.edu/handbook) is your go-to resource for things like: academic advising, tutoring, library and academic support, disability services, computing and technology, veteran and military support, academic complaint and appeals, late withdrawals, “classroom” behavior expectations and more.

UAF eCampus Student Services

Helps students with registration and course schedules, provides information about lessons and student records, assists with the examination process, and answers general questions. An Academic Advisor can help students communicate with instructors, locate helpful resources, and maximize their distance learning experience. Contact the UAF eCampus Student Services via <https://ecampus.uaf.edu/student-support/>, or call 907.455.2060 or toll free 1.800.277.8060, or contact staff directly through the directory.

UAF Help Desk

Go to <http://www.alaska.edu/oit/> to see about current network outages and technology news. For technical questions, contact the Help Desk at: e-mail at helpdesk@alaska.edu, Phone: 907.450.8300 or 1.800.478.8226.

Tutorial and academic support

Students seeking help with oral presentations, mathematics and/or writing have support available! You are strongly encouraged to reach out to these great, free resources:

[UAF Speaking Center](#) (907.474.5470, speak@uaf.edu)

[UAF Writing Center](#) (907.474.5314, Gruening 8th floor)

[UAF Math Services](#)

[Debbie Moses Learning Center](#) at CTC (907.455.2860) (604 Barnette St, 907.455.2860).

