

Resilience Seminar II: Methods for Interdisciplinary Research
BIOL/NRM 668 F01, CRN 36424
Spring 2018
1 credit, Pass/Fail

Location and Meeting Time: Tuesday 3:40- 5:10, in Murie 330
Zoom connection: <https://zoom.us/j/326589668>

Instructor:

Dr. Katie Spellman International Arctic Research Center
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RAP trailer
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Office Hours: Arranged by appointment.

Course Description:

This course aims to provide graduate students with an overview of research methods used in various social and bio-physical sciences. Each week, students will be given an introduction to a particular method. In some cases, students will also have the opportunity to employ skills in using a particular method. Additionally, students will learn about courses and resources on and off campus for learning more about that type of research. Topics range from climate modeling, to conducting surveys, to community-based and action research, and include both traditional and emerging methods used in a range of social and natural science disciplines.

This course was first offered in 2010 as the result of years of discussion among students 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 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 2-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 "Resilience Seminar 2."

Recommended Text:

Cresswell, J.W. 2008. Research design: qualitative, quantitative and mixed methods design.

ISBN-10: 1412965578

On Amazon, you can rent this book for \$16, or purchase a new one from ~\$31- \$63.

Attendance Policy & Grading:

This course will be graded as Pass/Fail. Attendance and participation in 10 of the 12 seminars is required in order to pass this course. Students are expected to arrive on time and give focused attention to course activities, lectures, and discussions. Writing emails or texts during class is strongly discouraged. Active participation in each seminar is expected.

Disabilities Services

The instructor will work with the Office of Disabilities Services (208 Whitaker Bldg, 474-5655) to provide reasonable accommodation to students with disabilities. Any student needing special accommodation should talk with the instructors before the class. Those discussions will be kept confidential.

Course Schedule

Jan. 22	Course Introduction and Syllabus A framework for social-ecological systems research (Dr. Katie Spellman)
Jan. 29	Considerations for interdisciplinary collaborative teams, data policies and authorship (Barbara Johnson)
Feb. 5	Interdisciplinary approaches to visual arts and natural sciences (John Smelter)
Feb. 12	NO CLASS (Alaska Forum on the Environment)
Feb. 19	Methods for framing an interdisciplinary thesis or study program (Dr. Katie Spellman)
Feb. 26	Survey Research Design (Dr. Peter Fix)
Mar. 5	Climate Modeling (Dr. Nancy Fresco)
Mar. 12	NO CLASS (spring break)
Mar. 19	STUDENT CHOICE
Mar. 26	Qualitative methods to assess local knowledge (Dr. Kimberley Maher, DNR)
Apr. 2	Videography (Dr. Maya Salganek)- <i>Meet in KUAC studio</i>
Apr. 9	Photo-voice Method for Action Research (Dr. Ellen Lopez)
Apr. 16	Methods for Community-based research (Todd Brinkman)
Apr. 23	Student Presentations- research framework and interdisciplinary methods applicable to their research

Past Student Choice:

Climate change communication and survey research methods (Dr. Karen Taylor)

Using GIS (Dr. David Verbyla)

Cross-cultural research (Richard Hum)

Epistemologies and methods for interdisciplinary collaborations (Dr. Katie Spellman)

Citizen Science research methods (Dr. Elena Sparrow)

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