Approaches to Socio-ecological Analysis
FWE 875, Fall 2012
Tuesday/Thursday 9:55–11:10, Russell Labs, A121

Co-instructors
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Course Description
Linking social and ecological analysis is increasingly recognized as important for addressing persistent social and environmental problems in both academic and policy contexts. Yet social and natural scientists encounter many philosophical and practical challenges when integrating research across disciplines. This course will survey approaches to linking social and ecological analysis across several disciplinary and analytical approaches, including geography, political ecology, environmental anthropology and sociology, human dimensions of global environmental change research, social-ecological system research, network analyses, and others. The course will acquaint students with each approach, examining their strengths, assumptions, and trade-offs. As part of the course, students will have the opportunity to participate in a meta-analysis of current research on social-ecological systems. This analysis will explore how different research efforts define system drivers and boundaries, employ different linking methodologies, and engage key concepts such as resilience, vulnerability, and adaptation. We will examine how these different research approaches create different types of findings and recommendations for social and environmental policy and practice. If desired, graduate students will have the opportunity to explore how choices about research approach may affect their own studies of socio-ecological systems.

Student Evaluation
25% Participation
35% Final paper and presentation
40% Meta-analysis of research articles

Participation
Engaging your colleagues is essential for deepening your understanding of approaches to social-ecological research. We expect everyone to complete the course readings and participate in class discussions. In addition, we will provide training on facilitation, and everyone will be responsible for facilitating discussion on one day. Facilitators should focus on assigned readings and synthesizing course material. Weekly readings should be read before each Tuesday for discussions on that day. The week’s facilitator will provide discussion prompts to the class by noon on Monday.

Final paper and presentation
The goal of the final paper is to give you the opportunity to explore your own approach to social-ecological (SE) analysis. Students with well-defined research questions and projects might situate and elaborate on the underpinnings of their approach. Students still developing research projects might explore what approaches seem attractive given their
interests, disciplinary affinities, and trade-offs among approaches. The paper should be 5-7 pages long and in 1.5 spaced Times New Roman 12 point font. It is due by 5:00 PM on Monday, December 17. You will also give a short presentation on your paper at the end of the course. The aim is to give you practice situating your research in a conference-style presentation and provide you opportunity for class feedback.

**Meta-analysis of research articles**
One course objective is to sharpen critical reading and comparative analytical skills by parsing the methodological approaches of research linking social and ecological systems. As part of the course, students will read and analyze several (~12-15) empirical SE research papers using a provided analytical tool. Students will engage several examples of SE case study research and contribute to a meta-analysis. Core meta-analytical foci include connections between approaches and results, linking epistemologies and methodologies, system boundary definition, governance and market mechanisms, drivers, and results and implications.

**WEEK 1**

**Tuesday, September 4th**
Class introduction

**Thursday, September 6th**
Introduction to social-ecological systems and research

*Readings*


**WEEK 2**

**Tuesday, September 11th**
Facilitation training

**Thursday, September 13th**
Introduction to meta-analytical techniques: Linking epistemology, method, boundaries, drivers, and findings


**WEEK 3**

**Tuesday, September 18**
Meta-analysis group work: completed example

**Thursday, September 20**
Keywords and concepts in socio-ecological research: adaptation

*Readings*


**WEEK 4**

**Tuesday, September 25**
Keywords and concepts in socio-ecological research: vulnerability

*Readings*


Thursday, September 27th  
Meta-analysis group work: pilot 1

WEEK 5

Tuesday, October 2nd  
Keywords and concepts in socio-ecological research: resilience

Readings  


Thursday, October 4th  
Meta-analysis group work: pilot 2

WEEK 6

Tuesday, October 9th  
Human dimensions of global environmental change

Readings  


Thursday, October 11th  
Meta-analysis group work: discussion of papers 1 and 2
WEEK 7

Tuesday, October 16th
Social-ecological systems and commons research

Readings


Thursday, October 18th
Meta-analysis group work: discussion of papers 3 and 4

WEEK 8

Tuesday, October 23rd
Land use change and sustainability science

Readings


Thursday, October 25th
Meta-analysis group work: Discussion of paper analysis 5 and 6
WEEK 9

Tuesday, October 30th
Nature-society geography

Readings


Thursday, November 1st
Meta-analysis group work: Discussion of paper analysis 7 and 8, plus reliability test

WEEK 10

Tuesday, November 6th
Political ecological approaches

Readings


Thursday, November 8th
Meta-analysis group work: Discussion of paper analysis 9 and 10

WEEK 11

Tuesday, November 13th
Research approaches in environmental sociology and anthropology

Readings


**Thursday, November 15**
Meta-analysis group work: Discussion of paper analysis 11 and 12

**WEEK 12**

**Tuesday, November 20**
Ecosystem Services

*Readings*


**Thursday, November 22**
NO CLASS: THANKSGIVING HOLIDAY

**WEEK 13**

**Tuesday, November 27**
Network and STS analyses

*Readings*

Thursday, November 29th
Meta-analysis group work: Discussion of paper analysis 13 and 14

WEEK 14

Tuesday, December 4th
Research approach wrap up discussion / Student presentations

Thursday, December 6th
Student presentations

WEEK 15

Tuesday, December 11th
Student presentations, Paper 15 due

Thursday, December 13th
Course closing, Meta-analysis wrap-up discussion, Evaluations

EXAM WEEK

Monday, December 17th
FINAL PAPER DUE BY 5:00 PM