

Coupled Human and Wildlife Systems

WIS 6xxx

Spring semester of odd years

Tues/Thurs 2:00-3:30 pm

McCarty B Rm 3096

3 credits

Instructor:

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Office Hours: Tues/Thurs 3:30-4:30 pm (or by appointment)

She/her/hers

Course Prerequisites: PCB 4043C or equivalent or permission of instructor

Course Description

The Coupled Human and Natural Systems (CHANS) framework provides an interdisciplinary approach to addressing global challenges by explicitly examining interactions and feedbacks between humans (e.g., culture, socioeconomics, governance) and nature (e.g., wildlife, plants, abiotic features). The goal of this course is to train graduate students to take such an interdisciplinary approach to critically analyze wildlife conservation issues occurring around the globe.

Learning Objectives

By the end of this course, students should be able to:

1. Employ a working knowledge of the main theories shaping coupled human and natural systems approaches.
2. Compare mechanisms shaping variation in human-wildlife interactions and feedbacks that occur in diverse socio-ecological contexts around the globe.
3. Interpret a given wildlife conservation challenge from multiple perspectives, drawing on both natural and social science disciplines.
4. Identify hidden human actors who are often ignored in single-discipline wildlife conservation efforts (e.g., marginalized groups, cultural minorities, indirect governance actors).
5. Assess cutting-edge methods that may be used to address a given wildlife research question in an interdisciplinary manner.
6. Design interdisciplinary strategies for addressing pressing challenges in wildlife conservation in different socio-ecological contexts and countries around the globe.

Course components

Class Participation

This course relies heavily on active student participation. Please complete the readings prior to the class period. Please notify the instructor of any absence. Unexcused absences will result in a deduction of 5 points each from the participation grade after 2 occurrences.

Diversity and inclusion are important to me. I want to maintain a course environment where everyone feels safe to express their views and be themselves. Student mental health and wellness are important to me. Please let me know how I can better meet your needs in this course.

Research Paper/Presentation

The main component of this class is the student independent research project. This project can be completed alone or in a small group with other students. The project will involve writing a research paper and making a presentation to the class in the last third of the semester. The student can choose their own topic related to the application of coupled human and natural systems research to wildlife.

The research paper could be an insight piece, conceptual framework, literature review, or analysis of original data. Students should aim to write a high-quality piece that could conceivably be published in a peer-reviewed journal after the course. Students will also review a research paper written by another student in the class and provide valuable constructive feedback for their colleague (similar to a peer review that would be conducted when reviewing for a journal). Students will then make changes to their paper in response to the peer review comments and submit a final paper along with responses to the peer reviewer comments.

Regarding the presentation, students will present their research topic to the class. Students should prepare a creative delivery of the material to the class to take up around 20 minutes. Detailed descriptions of the research project expectations can be found on Canvas.

Course Webpage

The course will be maintained on the Canvas E-learning website <https://elearning.ufl.edu/>. All course materials (including lectures, readings, and assignments) will be posted here. Please turn in any assignments via the submission buttons on the website.

Grading:

Grades will be calculated as follows:

A (90% or greater), B+ (87%-89.99%), B (83%-86.99%), B- (80%-82.99%), C+ (77%-79.99%), C (73%-76.99%), C- (70%-72.99%), D+ (67%-69.99%), D (63%-66.99%), D- (60%-62.99%), E (<60%)

Item	Points
Class participation	100
Research paper	100
Peer review of research paper	100
Presentation	100
Total	400

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Class Schedule

Week 1	Introduction Systems theory	
Week 2	Coupled Human and Natural Systems CHANS wildlife case study	
Week 3	SES theory SES theory case study	
Week 4	Resilience Resilience case study	
Week 5	Social-ecological feedbacks Social-ecological traps	
Week 6	Biocultural approaches Telecoupling	
Week 7	Case study- People and Pandas Guest Lecture	
Week 8	SES Mapping Participatory Approaches	
Week 9	Special topic- Poverty and wildlife Guest Lecture	
Week 10	Special topic- Wildlife and war Guest Lecture	
Week 11	Special topic- Human-wildlife conflict Guest lecture	Rough Research Paper Due
Week 12	Special topic- Gender and wildlife Guest lecture	
Week 13	Student presentations	Peer Review Due
Week 14	Student presentations	
Week 15	Agenda for the Future	Final Research Paper Due

Reading List

*additional readings will be added corresponding to guest lectures (based on guests scheduled for a given semester)

Week 1

- Roy, Eric D., et al. "The elusive pursuit of interdisciplinarity at the human—environment interface." *BioScience* 63.9 (2013): 745-753.
- Betley, E., et al. Introduction to Systems and systems thinking. Lessons in conservation. <http://ncep.amnh.org/linc>

Week 2

- Liu, Jianguo, et al. "Coupled human and natural systems." *AMBIO: a journal of the human environment* 36.8 (2007): 639-649.
- Carter, Neil H., et al. "A conceptual framework for understanding illegal killing of large carnivores." *Ambio* 46.3 (2017): 251-264.

Week 3

- Ostrom, Elinor. "A general framework for analyzing sustainability of social-ecological systems." *Science* 325.5939 (2009): 419-422.
- Brehony, Peadar, et al. "Incorporating social-ecological complexities into conservation policy." *Biological conservation* 248 (2020): 108697.

Week 4

- Folke, Carl. "Resilience: The emergence of a perspective for social–ecological systems analyses." *Global environmental change* 16.3 (2006): 253-267.
- Resilience practitioner workbook: https://www.resalliance.org/files/ResilienceAssessmentV2_2.pdf

Week 5

- Larrosa, Cecilia, Luis R. Carrasco, and E. J. Milner-Gulland. "Unintended feedbacks: challenges and opportunities for improving conservation effectiveness." *Conservation Letters* 9.5 (2016): 316-326.
- Boonstra, Wiebren Johannes, et al. "Human responses to social-ecological traps." *Sustainability Science* 11.6 (2016): 877-889.

Week 6

- Gavin, Michael C., et al. "Defining biocultural approaches to conservation." *Trends in ecology & evolution* 30.3 (2015): 140-145.
- Liu, Jianguo, et al. "Framing sustainability in a telecoupled world." *Ecology and Society* 18.2 (2013).

Week 7

- Hull et al. Ch 4 in: Liu, Jianguo, et al., eds. *Pandas and people: coupling human and natural systems for sustainability*. Oxford University Press, 2016.

Week 8

- Behr, Dominik M., Arpat Ozgul, and Gabriele Cozzi. "Combining human acceptance and habitat suitability in a unified socio-ecological suitability model: a case study of the wolf in Switzerland." *Journal of Applied Ecology* 54.6 (2017): 1919-1929.

Week 9

- Barrett, Christopher B., Alexander J. Travis, and Partha Dasgupta. "On biodiversity conservation and poverty traps." *Proceedings of the National Academy of Sciences* 108.34 (2011): 13907-13912.

Week 10

- Gaynor, Kaitlyn M., et al. "War and wildlife: linking armed conflict to conservation." *Frontiers in Ecology and the Environment* 14.10 (2016): 533-542.

Week 11

- Margulies, Jared D., and Krithi K. Karanth. "The production of human-wildlife conflict: A political animal geography of encounter." *Geoforum* 95 (2018): 153-164.

Week 12

- Ogra, Monica V. "Human-wildlife conflict and gender in protected area borderlands: a case study of costs, perceptions, and vulnerabilities from Uttarakhand (Uttaranchal), India." *Geoforum* 39.3 (2008): 1408-1422.

Week 13

- TBD- student choice

Week 14

- TBD- student choice

Week 15

- TBD- student choice

COVID Response Statements

- We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions:
 - You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
 - This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
 - Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
 - Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
 - If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
 - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies](#).

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals.

Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu*
Counseling, Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- *Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.*
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Student Complaints:

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>