NRRT 340: Principles in Conservation Planning and Management

Human Dimensions of Natural Resources Colorado State University

INSTRUCTOR: Mike Gavin, michael.gavin@colostate.edu

TEACHING ASSISTANT: Holly Gordon, <u>holly.gordon@colostate.edu</u>

CLASS MEETINGS: Tuesday and Thursday 800-915am in Natural Resources Building Rm 243.

OFFICE HOURS:

Mike: 10-11am Tuesdays via zoom (sign-up here: https://docs.google.com/document/d/1TNhnSSCleJqTCneWhj9RG9VSlsbOJbwvN8Zgx2e475E/edit)

Holly: Thursday's from 1pm-2pm, in-person at my office Forestry Building #237C. Sign up here: Holly Gordon's Office Hours for NRRT 340.docx Please email hgordo@colostate.edu if you would like to meet virtually or outside of this time.

COURSE OVERVIEW

This course will explore theories that are fundamental to conservation planning and management. The course will also engage students with a variety of tools used to apply theory to the practice of conservation. Topics in applied conservation planning and management will include the open standards for the practice of conservation, design of protected area systems, and adaptive management.

In addition, the course will focus on students further developing core competencies in critical skills that will assist in future classes and careers. In particular the course will provide space for students to improve their skills in a variety of means of communication (presentations, group work), in critical thinking, and in the research process. The course will focus on the importance of identifying and filtering a wide variety of information sources and in analyzing and presenting results in a clear, concise and synergistic fashion.

COURSE MATERIALS, ASSIGNMENTS, AND GRADING

All readings and other relevant course materials will be available through the course's Canvas website

Assignments	Percent of final grade	Due Date
SES characteristics in protected area:		
Draft	3%	August 29
Final	7%	September 5
Protected Area Design Exercise	10%	October 24
Open Standards for Conservation Planning:		
Group Presentation 1	10%	October 10
Group Presentation 2	15%	November 7
Individual Paper	35%	November 16
Final group presentation	20%	November 30

See below for assignment details.

Percentage	Letter Grade
98-100%	A+
92-97%	A
90-91%	A-
88-89%	B+
82-87%	В
80-81%	B-
78-79%	C+
72-77%	С
70-71%	C-
65-69%	D
<65%	F

Letter grades will be assigned as follows:

COURSE POLICIES

This linked page provides policies relevant to this course and resources to help with various challenges students may encounter: <u>https://col.st/2FA2g</u>

This course will adhere to the CSU Academic Integrity Policy as found on the Student' Responsibilities page of the <u>CSU General Catalog</u> and in the <u>Student Conduct Code</u>.

At a minimum, violations will result in a grading penalty in this course and a report to the Office of Student Resolution Center.

Academic Integrity (also see: https://tilt.colostate.edu/Integrity/StudentResources. Accessed: August 16, 2023)

At minimum, academic integrity means that no one will use another's work as their own. The CSU writing center defines plagiarism this way:

"Plagiarism is the unauthorized or unacknowledged use of another person's academic or scholarly work. Done on purpose, it is cheating. Done accidentally, it is no less serious. Regardless of how it occurs, plagiarism is a theft of intellectual property and a violation of an ironclad rule demanding 'credit be given where credit is due.'"

Source: (Writing@CSU Guide.<u>http://writing.colostate.edu/guides/guide.cfm?guideid=17.</u> Accessed, August 16, 2023)

If you plagiarize in your work you could lose credit for the plagiarized work, fail the assignment, or fail the course. Plagiarism could result in expulsion from the university. Each instance of plagiarism, classroom cheating, and other types of academic dishonesty will be addressed according to the principles published in the CSU General Catalog and in the Student Conduct Code.

Of course, academic integrity means more than just avoiding plagiarism. It also involves doing your own reading and studying. It includes regular class attendance, careful consideration of all class materials, and engagement with the class and your fellow students. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community.

Requests for Assignment Extensions: In fairness to your fellow classmates, extensions on due dates for assignments will not be granted except in cases where extenuating circumstances arise and can be documented. If this is the case, please let me know at the earliest possible opportunity to request an extension. In the absence of being granted an extension, the policy below applies for late submissions.

Policy on Late Assignments: Late assignments will be penalized 5% per calendar day (including weekends).

Working in a Group: Most jobs require employees to work in groups at some point. Frustration or conflict can occur when working in a group. If you find yourself working in a group for this class, or any other one, where conflict is negatively affecting production, professional is available via the Student Resolution Center: <u>https://resolutioncenter.colostate.edu/about-us/</u>

Basic Needs Statement: At CSU, Rams take care of Rams—period. If you are experiencing food, housing, and/or transportation insecurity, please contact <u>lsc_basicneedsinfo@colostate.edu.</u>

Student Disability Center Accommodations: Students who have federally supported disabilities will find information about processes and supports available at this site: <u>https://disabilitycenter.colostate.edu/accommodations-process/</u>

Date & Time	Topics	Assignments
August 22	• Introduction, course logistics, discussion of assignments	
Theme: Social-ecological systems and adaptive management frameworks		
August 24	Social-ecological systems	
August 29	 Social-ecological systems and protected areas 	Assignment: Social-ecological characteristics in protected area draft due
August 31	• Implications of SES theory for conservation management: introduction to adaptive management	
September 5	 Introduction to Open Standards for the Practice of Conservation Planning Establish planning groups 	Assignment: Final social- ecological characteristics in protected area due
Theme: Participation and the planning team		
September 7	• Introduction to participation and conservation governance issues	

COURSE SCHEDULE

(Please see Canvass for details on required and suggested readings)

Sept 12	• Open Standards for Conservation Planning: defining your planning team	
Theme: Scale, scope, and targets of conservation plans		
Sept 14	 Scope of conservation actions: Historical ecology Literature research and citations 	
Sept 19	Scope of conservation actions:Biodiversity basics	
Sept 21	• Debating the scale of conservation effort (species, protected areas, landscapes)	
Sept 26	 Conservation Action Planning: defining scope and vision, and targets Presentation skills 	
Sept 28	Open Standards for Conservation Planning: viability assessment	
Theme: Identifying threats		
October 3	• Threats to biodiversity	
October 5	• Open Standards for Conservation Planning: threats and situation assessment	
October 10	Open standards presentations	Assignment: Open Standards Presentation 1 due
October 12	Open standards presentations	
Theme: Planning conservation interventions		
October 17	 Principles of conservation biology related to protected area design 	
October 19	Protected area design exercise	

October 24 • Drivers of conservation action: conservation psychology and conservation behavior change	Assignment: Protected area design exercise due
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October 26	Measuring and monitoring non-compliant behaviors	
October 31	• Open Standards for Conservation Planning: strategy selection and results chains	
November 2	• Open Standards for Conservation Planning: strategy selection and results chains	
November 7	Open standards presentations	Assignment: Open Standards Presentation 2 due
Nov 9	• Open standards presentations	
Nov 14	 Open Standards for Conservation Planning: strategy selection and results chains Peer-reviewed sources and citations 	
Theme: Putting it all together – Open Standards for Conservation Planning		
Nov 16	• Open Standards for Conservation Planning: goals and objectives	Assignment: Open Standards Individual Paper due
Nov 21 & 23	• Fall Break	
Nov 28	Open Standards for Conservation Planning: final workshop	
Nov 30	Open Standards for Conservation Planning	Assignment: Open Standards
	presentations	for Conservation Planning final presentations due
December 5	 Open Standards for Conservation Planning presentations 	for Conservation Planning final presentations due

Assignment details

<u>Social-ecological characteristics in protected area assignment:</u> For this assignment you need to select a protected area to focus on. The protected area can be anywhere in the world. Be sure you can locate sufficient information for the protected area before you make a final choice. Describe how the protected area represents <u>at least four</u> of the following social-ecological characteristics from Liu et al article: (1) interaction of social and ecological components, (2) dynamic (i.e. changes over time), (3) heterogeneous at different spatial scales, (4) feedback loops, (5) complexity, (6) uncertainty and surprises, (7) multi-scalar, (8) legacy effects, (9) thresholds. Keep your answer to one page total. You should bring an initial draft that outlines your ideas for each of the four chosen characteristics to class on August 30th. Based on our class discussion that day, you will then be able to revise your draft and turn in a final version on September 6th.

Assignment due: You should bring a hard copy (printed) of your draft to class on August 29th. You should submit your final version via canvass before class begins on September 5th in .doc or .docx format.

Grading Criteria: clear and concise answers within one-page limit (40%), thoughtful explanation of how the PA represents each characteristic chosen (60%)

Protected Area Design Exercise: After being introduced to fundamental principles that help shape the design of protected area systems, you will be asked to complete an assignment for which you apply these principles to the design of a particular protected area system. The full details of this assignment will be provided in class. The assignment will ask you to design the system within budget constraints provided, and to justify your design based on the key principles we learn about and considering the data you will be provided on the ecology and socioeconomic conditions for the region in which the system will theoretically be applied.

Assignment due: October 24th (at the beginning of class)

Open Standards for the Practice of Conservation Planning Assignments:

Open Standards for the Practice of Conservation Planning is a framework developed to guide the conservation planning process. Conservation organizations around the world use different versions of the Open Standards to guide the conservation planning process. You will become familiar with this form of conservation planning, and the different concepts and processes that the framework entails. You will then be asked to work in a group to produce part of an action plan using the framework. The assignment will involve a formal presentation of results by your group, as well as an individual report of your results and analysis. The assignment will allow you to become familiar with this widely used conservation tool and to develop your skills working as a group, presenting in a formal setting, and writing reports.

The Open Standards planning process was designed with a biodiversity focus in mind. Although this set of planning tools is actively evolving to include a focus on other factors, such as human well-being, we will use the Open Standards planning process as it was originally designed – to plan for biodiversity conservation. In turn, you will need to choose the scope of your project with a biodiversity focus in mind. However, your group has the freedom to choose any project you would like to plan for anywhere in the world. You can choose any real world example for which you have access to enough information to prepare a plan; or you can create your own fictitious scenario. If you choose a real world example, keep in mind that the goal of this exercise is to create a unique plan, not to report on plans that already exist. If you choose to create your own system to focus on, keep in mind that you will need to create enough detail to be able to justify the decisions you make as part of the planning process.

Over the remainder of the semester we will be working our way through the initial steps of the Open Standards planning process in workshop format. You will learn about key theories and ideas that shape the Open Standards planning steps, learn how to undertake each step, and then apply what you have learned to develop your team's plan. You and your team will report your results in the following deliverables:

(1) Group presentation 1 (worth 10% of grade, due October 10th)

A copy of your group's presentation materials should be submitted via canvass before class begins. The group presentation should be no longer than 10 minutes in length. Your team can use whatever visual aids you feel are appropriate. You should envision that you are presenting to a diverse set of key stakeholders that have a vested interest in the outcome of conservation management for your particular case. Your presentation should be professional, clear and concise. You will need to justify all the decisions you have made throughout the planning process and refer to appropriate literature in these justifications, as well as be prepared to answer questions from the audience.

The group presentation should focus on each the following Open Standards planning components: defining the planning team, defining the project scope and vision, targets (you should have 2 targets), and viability assessments for each target.

Assessment: Professional presentation style (20%), clear and concise overview of the components of the Open Standards planning process (45%), justification of planning decisions based on available evidence and key concepts and literature (25%), peer assessment of contribution to group (10% - you will assess each group member's contribution to the project and turn these assessment forms in separately via canvass)

(2) Group presentation 2 (worth 15% of grade, due November 7th)

A copy of your group's presentation materials should be submitted via canvass before class begins. The group presentation should be no longer than 15 minutes in length. Your team can use whatever visual aids you feel are appropriate. You should envision that you are presenting to a diverse set of key stakeholders that have a vested interest in the outcome of conservation management for your particular case. Your presentation should be professional, clear and concise. You will need to justify all the decisions you have made throughout the planning process and refer to appropriate literature in these justifications, as well as be prepared to answer questions from the audience.

The group presentation should focus on the following Open Standards planning components: threats (you should focus on 3-5 direct threats and link these threats to the IUCN classification system – see Salafsky et al reading, as well as identify sufficient indirect threats to be able to point to multiple possible points of intervention), stresses (you should have one stress for each threat-target combination), situation analysis, strategy selection (you should have at least 2 strategies), and results chains (one per strategy).

Assessment: Professional presentation style (20%), clear and concise overview of the components of the Open Standards planning process (45%), justification of planning decisions based on available evidence and key concepts and literature (25%), peer assessment of contribution to group (10% - you will assess each group member's contribution to the project and turn these assessment forms in separately via canvass)

(3) Individual paper (worth 35% of grade, due November 16th)

Your individual paper should be submitted via canvass before class begins on November 16th. Please use a .doc or .docx file format. Each student should submit their own individual paper, and the content of the paper should represent only the author's work.

The report should include the following components:

- (i) a discussion of how you decided on the planning team and a reflection of how these choices are linked to research on participation in conservation;
- (ii) how did you take into account ideas from social-ecological systems theory to define the planning team, and how does the open standards planning process reflect social-ecological systems theory;
- (iii) how your planning considered theory on the scope of conservation (e.g., see Schwartz reading);
- (iv) how your choice of strategies considered conservation psychology theory.

Overall, you should seek to link the explanation of your plan's design to key theories we covered in class and in the course readings.

You should also seek to cite at least 4 peer-reviewed sources NOT including the course readings. Be sure to cite all sources used and provide full bibliographic details for all citations.

The report should be no longer than 1000 words (*not* including any diagrams or references/literature cited).

Assessment: clear and concise format (20%), justification of planning choices which accurately applies the key concepts/theories from the course (60%), proper citation of literature including at least 4 peer-reviewed sources NOT included in course readings (20%)

(4) Final group presentation (worth 20% of grade, due November 30th)

A copy of your group's presentation materials should be submitted via canvass before class begins. The group presentation should be no longer than 20 minutes in length. Your team can use whatever visual aids you feel are appropriate. You should envision that you are presenting to a diverse set of key stakeholders that have a vested interest in the outcome of conservation management for your particular case. Your presentation should be professional, clear and concise. You will need to justify all the decisions you have made throughout the planning process and refer to appropriate literature in these justifications, as well as be prepared to answer questions from the audience.

The final group presentation should focus on the following Open Standards planning components: planning team, scope and vision, targets (for final presentation focus on just 1 of your 2 targets), viability assessment for the target, situation analysis (which identifies the direct and indirect threats that influence the chosen target, and the stresses on the target caused by the direct threats. Note that direct threats should be linked to the IUCN classification system), 3-5 strategies and justification for their selection using theory from class, results chains (one per strategy), goals and objectives indicated on the results chains. Be sure to justify all of your plans linking your decisions to theory we discussed in class.

You should include a slide that describes the adjustments you made to your plan based on feedback from prior presentations.

Assessment: Professional presentation style (20%), clear and concise overview of the components of the Open Standards planning process (45%), justification of planning decisions based on available evidence and key concepts and literature (25%), peer assessment of contribution to group (10% - you will assess each group member's contribution to the project and turn these assessment forms in separately via canvass)