

# Syllabus

**HP 4152: Exploring the Ecological Culture of Panama**

**CRN:** 25150

**Semester:** J-term 2023

**Meeting Time:** 4-15 January 2023

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## COURSE OVERVIEW

### Description

This field course introduces students to the ecological culture of Panama and gives participants practical experience conducting tropical ecology research (focused primarily on animals). Students will contribute to long-term field research conducted in central Panama since 2003. In doing so, students will experience numerous field research and data collection techniques, contribute to data cleaning, observe preliminary data analyses, and explore ideas for self-directed research should they continue working in Panama beyond the duration of the course. Field work may explore the adaptive function of army ant swarms (or other mixed-species foraging aggregations in birds) or function of bird song; the impact of habitat fragmentation on environmental noise or impacts of light on dancing birds. Throughout the course, students will also explore the human dimensions of scientific research (including science communication, international research considerations, and more). The course will examine Panama's ecological culture, including the ecological impact of the Panama Canal expansion (with visits to the Canal locks and surrounding forest fragments).

### Prerequisites

1. Instructor approval.
2. Interest in tropical ecology and conservation. Preference given to UW Honor's College students or other high-performing student (>3.25 GPA), especially those with an interest in ecology, biological conservation, bio-inspired engineering, and science communication (e.g., illustration, photojournalism, science writing for popular audiences).

### Course Structure

Days will be spent primarily in the forest collecting data or visiting ecologically-relevant sites. Afternoon/evening activities will include lectures, special activities (capturing bats, cooking, nighttime forest walks), and discussions with local scientists. Training activities and facilitated activities will engage students in the scientific and humanities dimensions of field ecology (e.g., field methods, ethics, field sketching, travel and nature writing, developing public-facing content to share with a wider audience). Course requirements will include pre-trip readings, pre-trip meetings with instructors (in fall semester prior to J-term course), and engaged, active, curious, and enthusiastic participation in all activities during the course as well as completion of all assignments, project planning and gear maintenance, etc.

### Course Calendar

See [this link](#) for a detailed, daily course calendar. This schedule is subject to change, based on weather, expert and gear availability, status of existing research projects, government permitting, and other as-yet unforeseeable factors. Students will receive as much advance notice as possible of changes; given this is a field

course, that window may be small.

### Policy of Anti-Harassment and Inclusivity

This course operates under UW's policies relating to harassment, inclusion, etc. Absolutely no harassment will be tolerated. If you are experiencing negative attention (which may come from someone within or outside the course group), please notify one of the instructors as soon as you feel comfortable doing so. Also note that all UW employees (i.e. instructors) on this course are mandatory reporters in instances of sexual harassment and assault. Depending on the circumstances of your situation, we may be required to report back to UW's student affairs office for advice and further handling of the case.

### Grading Breakdown

See "Course Component Descriptions" below for detailed descriptions.

Course Component	Description	Percent of final grade
[1] Pre/Post Course Reflections & Surveys	Online reflection and surveys	5
[2a] Participation (pre-trip)	Meetings, responding to pre-trip emails (about plane travel, etc.) and pre-departure readings	5
[2b] Participation (during course)	Active participation in all activities and discussions (details below in Participation section)	40
[3] Sharing science	Contribution to course social media (daily post), adopt-a-species blog post	15
[4] Big questions/grand challenges presentation	Summary, analysis, and presentation of a major issue in tropical ecology, science communication, human dimensions of ecology, or a hybrid of 2+ themes	15
[5] Daily field notebook/journal	Field documentation and self-reflection (daily, 10 entries)	20

Skipping any major component of the course may lead to automatic failure of the course. In particular, social media posts/log, daily field journal entries/log, the adopt-a-species blog post, and the big questions presentation are required submissions to pass the course.

Grading will be on a linear scale:

**A:** ≥ 90% **B:** 80-89.9% **C:** 70-79.9% **D:** 60-69.9% **F:** < 60%

### Readings

Students will delve into original scientific papers and other sources to inform their field experiences. Reflections and other assignments demonstrating engagement with the readings will be submitted to the WyoCourses class site. Supplemental and required readings will also be provided by the instructors, and may address ecological-, cultural-, and humanities-related themes. These will all be posted in WyoCourses. Please note that readings may not be available until the day before. We attempt to cater to the interests of the students. While this will not require you to read material ahead of time, this will require you to fully engage in rapid reading prior to discussion.

### Participation (General)

Your participation in class exercises and discussion is critical to the quality of your experience in the course and the success of your fellow students. Unless time is specifically designated as free time, class is in-session while you are in Panama. In all course settings (including field work, field trips, lectures, work time, meetings with instructors, and co-working sessions), you will be responsible for actively engaging as an informed, thoughtful, and respectful classmate.

To succeed in this course, it is essential to attend pre-trip meetings, participate fully in all course activities, and turn in your assignments on time. Each student is expected to participate in all activities. Two percentage points will be subtracted from your final grade for every unexcused absence (i.e. absence that is not University-sponsored or deemed acceptable by the instructors). University-sponsored absences are cleared through the Office of Student Life; however, while in Panama, you should first consult the instructors or the TA about reasons for absence. Please discuss anticipated absences with the instructors in advance. Make-up work will be offered for students with acceptable absences.

Key components of course participation include:

- Course assignments and in-class participation: these include but are not limited to discussion threads on course website; active participation in discussions and activities in-class, per the rubric and guidelines below; major assignments (including adopt-a-species, social media posting, etc.).
- As a point of good course etiquette, actively engage with the ideas and efforts of your peers and be sure to hold space for everyone and not dominate discussion. Further, whenever possible, your engagement should add to the knowledge base or dimensions of discussion. (In other words, avoid simple statements such as “I agree,” unless you build on that in more detail.)
- Participation is a required component of your course grade. Participation includes submitting all assigned drafts, work-in-progress assignments, and reflections (though these components will be graded on their own merit).
- See the Participation Rubric at the end of the syllabus for more details on participation expectations.

## **COURSE COMPONENTS**

### **[1] Pre- and Post-Course Surveys and Goals Reflection** (5% of final grade)

At the beginning and end of the course, you will (ideally) complete a meaningful, multifaceted survey and goals reflection that helps you think through your current approaches to a number of themes that are central to your experience during the WyoPanama course. By doing so, you will also help the instructors to better understand what motivates you to experience tropical ecology research in the field and inform how we can support your goals for your own learning and growth. Participation in this survey meets your course participation expectations for the first day of the course and is a component of the participation expectations for the end-of-course day the post-survey is assigned. As an alternative, you may complete an essay addressing the questions in the survey (minimum 5 double-spaced pages). Your refusal to participate in the survey will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time. If at any time you choose to withdraw from this study, you may do so by closing the browser window.

### **[2] Participation (pre-trip and field components)** (5% of final grade for pre-trip meeting; 40% for in-country participation)

The grade component will include participation in one ~1 hour meetings in the Fall term before departure to Panama. Involvement in field data collection, trainings, and discussions with classmates and guest speakers (see class participation rubric) is included in this participation category. See above note (Participation--General) for a good overview of what we mean. In order to be successful in this course component, you will be expected to be prepared for each day. This means reading in advance any material assigned for the day and being prepared for long days of field data collection. Participation also involves active engagement in the days' work, backing up data and notes daily (including transcription, field reflections, photographs, etc.), and maintaining gear in working condition. You should be prepared to start each scheduled activity on time and to be clear about transportation and related logistics that may require support or impact

others on the crew. Please listen to your teammates, and engage in constructive debate and discussion, showing equal respect for all class participants. See “Participation Rubric” for details.

### [3] Sharing Science (15% of final grade)

Students will contribute one original blog post (>500 words each) and a course-long series of social media posts (1+/day) to the course blog and social media platforms. Posts will comprise original perspectives, field observations, and documentation of research projects during the field course component. Posts should explain a topic or issue in clear, concise, and accessible terms. Posts are expected to report and/or synthesize readings, field observations, adventures, and discussions. Posts are to include original field sketches, photographs, and/or graphics to illustrate the writing. Posts must employ an accessible tone appropriate for a non-specialist audience. The blog post will be an adopt-a-species reflection essay engaging with the peer-reviewed literature on your non-mammal species of choice, along with your own observations, reflections, etc. The blog post must include linked references at the end of the post. Drafts and posts will be reviewed by instructors, and revision suggestions may be provided; revision is expected if you receive revision suggestions.

Checklist (total points scaled to percentage of final grade):

- [5 pts] Selects topics and plan for blog piece and social media posts (discussed with instructor via submission of drafts)
- [5 pts] Follows planned format in substantive and consistent way or presents alternative approach (developed in consultation with and approved in advance by instructor)
- [15 pts] Investigates a novel element or topic within the theme, evaluates multiple contexts for topic
- [5 pts] Clarity of and quality of writing (see “General Writing Rubric”)
- [5 pts] Social media posts: Inclusion of at least 1 image with caption and alt text. Blog post: Inclusion of 3+ appropriate images with captions and alt text. Instructors will provide details on writing good alt text.

### [4] Big questions/grand challenges presentation (15% of final grade)

Each student will select, research, and present on “next big question/issue” relevant to one or more of the major areas of the course: tropical ecology, science communication, human dimensions of ecology, or a hybrid of 2+ themes. The presentation will consist of 4 slides (firm limit) that demonstrate the student’s active engagement with and robust thinking about the course theme and the future research/activity needed to address the issue/question. In other words, the presentation is not a Wikipedia entry. Rather, the presentation is both synthesis and analysis that points to next steps that could be taken to concretely investigate the research question or address the issue. The student’s topic will be selected in consultation with the instructors. Be creative and thoughtful. Each student will use their research, observations, and synthesis to analyze and present the following 3 slides:

1. Background on the issue/big question/grand challenge
  - Who cares?
  - Why does this issue/question matter?
  - What regions of the world are involved?
  - Existing disciplinary discourse/consensus
2. Why you’re interested in/chose the topic
3. What aspect of the issue you think should be a priority for the field going forward, and why
4. Ways that you would approach the issue/question/challenge, if you were to pursue it in your own career

Checklist (total points scaled to percentage of final grade):

- [20 pts] Aesthetic quality of presentation (effective use of data visualizations and photos/illustrations from the course)
- [20 pts] Clarity of basic information (e.g. is question clearly understood?)
- [20 pts] Transparency, creativity, and strength of analytical (proposed or actual) approach
- [20 pts] Quality of overall conclusion/inference/solution

### **[5] Daily Field Journal/Notebook (20% of final grade)**

Regardless of your chosen field of study (zoology, engineering, medicine, journalism, creative writing, fine arts, etc.), immediate recording of observations and events can help ensure maximal data integrity, rich memories, and high-quality end products. For the duration of this course, each student will record all observations and collected data in a daily field notebook/journal, often in the form of a specific writing prompt that focuses on the day's activities. This work will be monitored and assessed by the course instructors. At the end of the course, students will upload legible scans or photographs of the pages of their field notebook/journal to an assignment page in WyoCourses. Content from the notebook/journal will form the basis of blog and social media entries, but will likely not be the sum total of any one entry. Students should also annotate and build upon their field notes as they work towards their final coursework. Some field note prompts will also focus on project ideation, methods development, literature review and annotated bibliography, etc. Training will be provided on ecology field data collection, field sketching, nature writing, travel writing, and sharing science through social media.

Checklist (total points scaled to percentage of final grade):

- [5 pts] Clear, legible scans/photos of field notebook pages from 10+ days of the course
- [5 pts] Reflection demonstrates critical thought and original perspectives
- [5 pts] Entries clearly reflect engagement with prompts, assigned readings, field experiences, etc. Entries include/address all components of prompt.
- [5 pts] Each entry includes at least one sketch with annotations, meta data/orienting information, records of any data collected (if relevant for the entry), personal observations, and reflections on the day.

### **Writing Guidelines**

All assignments will be evaluated on content and, in some cases, writing mechanics (grammar, punctuation, spelling, etc.), style (clarity, flow, appropriate tone, etc.), and proper attribution of other's work. Students should refer to the "General Writing Rubric" (at the end of this document) for an overview expectations for written work. Assignment-specific formatting guidelines will be provided via relevant assignment pages on WyoCourses. For most assignments in this course (such as daily journal entries), your submissions will be assessed for general readability.

### **Student Support**

If you have a physical, learning, sensory or psychological disability and require accommodations for assignments, please let your instructors know as soon as possible. You will need to register with, and possibly provide documentation of your disability to Disability Support Services (DSS), room 109 Knight Hall. You may also contact DSS at [\(307\) 766-3073](tel:3077663073) or [udss@uwyo.edu](mailto:udss@uwyo.edu). Visit their website for more information:

[www.uwyo.edu/udss](http://www.uwyo.edu/udss)

### **Withdrawal policy**

If a need arises for you to drop or withdraw from this course, you must first obtain written permission from the instructor and your academic advisor. If at any time you are concerned about your academic performance in this course, please make an appointment to meet with one of the course instructors as soon as possible.

### **Academic Honesty**

The University of Wyoming is built upon a strong foundation of integrity, respect and trust. All members of the university community have a responsibility to be honest and the right to expect honesty from others. All work you submit is expected to be your own, including statistical code, presentation, and online contributions. All sources used in assignments and projects—including those paraphrased and located online—need to be correctly cited. If you use five or more words from a source exactly as they are used in that source, you need to

put those words in quotation marks and cite the source. In other words: When in doubt, please cite. Students involved in any form of academic dishonesty will receive no credit for the assignment in question and may fail the course. If you are unsure of what constitutes an act of academic dishonesty, or would like clarification on this vital issue, please consult your instructor: ask good questions early and often! The University Regulation for academic dishonesty (UniReg 2-114) can be found at <https://tinyurl.com/ud6nrb8>.

**See the following pages for course rubrics.**

Assignment-specific rubrics will be provided, when appropriate, on individual assignment pages (via WyoCourses).

## Participation Rubric

	<b>Satisfactory</b>	<b>Needs development</b>	<b>Unsatisfactory</b>
<b>listening</b>	actively and respectfully listens to peers and instructor	sometimes displays lack of interest	projects lack of interest or disrespect or others
<b>preparation</b>	arrives fully prepared with all assignment completed and notes on reading	sometimes arrives unprepared or with only superficial preparation	exhibits little evidence of having read or thought about assigned material
<b>quality of contributions</b>	comments are relevant and reflect understanding of assigned texts, previous remarks of classmates, and insights about assigned material	comments sometimes irrelevant, display lack of preparation, or indicate lack of attention to previous remarks of other students	comments reflect little understanding of either the assignment or previous remarks in seminar
<b>impact on class</b>	comments frequently help move conversation forward	comments sometimes advance conversation, but sometimes do little to move it forward	comments do not advance conversation or are actively harmful to it
<b>frequency of participation</b>	actively participates at appropriate times	sometimes participates but at other times is altogether disengaged	seldom participates and is generally not engaged

## General Writing Rubric

	<b>Excellent</b>	<b>Adequate</b>	<b>Poor</b>	<b>Unacceptable</b>
<b>Context of and Purpose for Writing</b>	Thorough understanding of context, audience, and purpose that is responsive to the assigned task(s).	Adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s)	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s)	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks
<b>Sources and Evidence</b>	Skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline.	Demonstrates use of credible and relevant sources to support ideas that are appropriate for the discipline.	Demonstrates an attempt to use sources to support ideas in the writing.	No attempt to use sources to support ideas in writing
<b>Synthesis of Literature</b>	Synthesis of literature supports arguments made and shows insight into the key issues	Synthesis of literature supports arguments made, but other work would provide better support	Synthesis of literature is only somewhat related to arguments made	Synthesis of literature does not support arguments
<b>Interpretation</b>	Grounded in analysis, displays critical thought, and anticipates opposing arguments	Inferences follow logically from synthesis but are largely obvious and only anticipate some opposing arguments	Personal inferences show little critical thought or recognition of opposing arguments	No inferences noted
<b>Attribution</b>	All citations, quotes and paraphrases are integrated appropriately and effectively, with a complete bibliography	Most citations, quotes, paraphrases integrated appropriately and effectively; some lacking connections	Many citations missing or quotes and paraphrases placed without any connections made	Work done by others is not cited, quoted or paraphrased

RUBRIC CONTINUES ON NEXT PAGE. →

	<b>Excellent</b>	<b>Adequate</b>	<b>Poor</b>	<b>Unacceptable</b>
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<b>Organization</b>	Rational flow of ideas, grouped appropriately. Engaging introduction showing sophisticated understanding of topic; conclusion both states the main points and recognizes implications.	Ideas mostly organized; introduction shows acceptable understanding of topic; conclusion states main points, but struggles with relative importance.	Ideas somewhat organized; intro. Somewhat connected to topic; theme is difficult to recognize; conclusion missing some key points made in the paper.	Ideas are poorly organized and difficult to understand. Introduction and conclusion do not show relevance to topic.
<b>Grammar &amp; Clarity</b>	All sentences are grammatically correct, clear, and concise	No obvious grammar mistakes and one or two awkward sentences	Paper mildly unclear: grammar errors & poorly constructed sentences	Paper difficult to read due to errors in grammar & unclear writing
<b>Writing Style &amp; Diction</b>	Enjoyable to read, appropriate summary sentences, logical transitions. Thoughtful word choice.	Somewhat interesting, some rough transitions. Word choice appropriate.	Somewhat boring, many transitions unclear. Some inappropriate word choice.	Uninteresting and lacking flow. Inappropriate word choice.