Term Information

Effective Term   Spring 2024

General Information

Course Bulletin Listing/Subject Area   Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org   Evolution, Ecology & Org Bio - D0390
College/Academic Group   Arts and Sciences
Level/Career   Undergraduate
Course Number/Catalog   3495
Course Title   Research Ethics and Protocols in Behavior, Ecology and Evolution
Transcript Abbreviation   Ethics Evol Ecol
Course Description   This course aims to equip students with important skills in doing responsible and equitable research in natural and behavioral sciences. Students will explore ethics in science, including conflict of interest, scientific misconduct, reduced research benefits for underserved populations, gender, racial, and language bias in designing, supporting, and communicating research.
Semester Credit Hours/Units   Fixed: 2

Offering Information

Length Of Course   14 Week
Flexibly Scheduled Course   Never
Does any section of this course have a distance Yes
education component?
Is any section of the course offered   100% at a distance
Grading Basis   Letter Grade
Repeatable   No
Course Components   Lecture
Grade Roster Component   Lecture
Credit Available by Exam   No
Admission Condition Course   No
Off Campus   Never
Campus of Offering   Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites   3 credit hours in biological sciences
Exclusions
Electronically Enforced   Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   26.1310
Subsidy Level   Baccalaureate Course
Intended Rank   Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes	• • learn the principles of responsible research practices and scientific integrity
	• • fulfill the institutional requirements for conducting research in biological sciences
	• • understand current issues in biology, especially those that have significant ethical and societal implications, and communicate scientific concepts and processes.
	• • understand the factors that underlie environment-organism interactions and address broader implications of research conducted in these fields.
Content Topic List	• a. IRB and Federal Regulations
	b. BioSafety and Occupational Health
	c. Nonhuman animal, human clinical and behavioral research ethics
	d. Office of Responsible Research Practices (ORRP) at OSU
	• e. Conflict of Interest
	f. Protocols involving Recombinant DNA
	g. Data Management
	h. Privacy, Quality, Institutional Requirements on Data Ownership
	i. Scientific Misconduct:From plagiarism to fabrication to Chatbots
	• j. Authorship, peer review
	k. Ethical Issues Regarding Collaborative Work and Mentor-Mentee Relationship
	l. Inclusiveness in Undergraduate Research
	m. Biodiversity and Colonialism
	n. Racial Disparities in Human Subject Research
	• o. Geography, Culture, Technology, and Gender: Factors in Determining the Beneficiaries of Research
Sought Concurrence	No

Attachments

- asc-distance-approval-cover-sheet-EEOB Research Ethics-1.pdf: Distance Approval Cover Sheet

  (Other Supporting Documentation. Owner: Hamilton,Ian M)

- EEOB Curriculum Maps April 2023.xlsx: Curriculum Maps

  (Other Supporting Documentation. Owner: Hamilton,Ian M)

- EEOB 3495 Research ethics_4_17_23.docx

  (Syllabus. Owner: Hamilton,Ian M)

- EEOB 3495 Research ethics_7_10_23_NMS Panel Responses 8_17.docx: Revised Syllabus

  (Syllabus. Owner: Hamilton,Ian M)

- Responses to NMS Panel EEOB 3495.docx: Response to panel feedback

  (Other Supporting Documentation. Owner: Hamilton,Ian M)

Comments

- See feedback email sent 05-09-2023 RLS *(by Steele,Rachel Lea on 05/09/2023 01:25 PM)*

- This course and EEOB 3496 (Career Explorations) have been developed with the intent of being included in an undergraduate research certificate in evolution and ecology. However, approval of these courses is not contingent upon approval of the certificate, and the certificate is not yet far enough along to submit concurrently *(by Hamilton,Ian M on 04/19/2023 10:21 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hamilton,Ian M	04/19/2023 10:22 AM	Submitted for Approval
Approved	Hamilton,Ian M	04/19/2023 10:24 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	04/19/2023 12:24 PM	College Approval
Revision Requested	Steele,Rachel Lea	05/09/2023 01:25 PM	ASCCAO Approval
Submitted	Hamilton,Ian M	08/17/2023 01:04 PM	Submitted for Approval
Approved	Hamilton,Ian M	08/17/2023 01:04 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	08/22/2023 09:53 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	08/22/2023 09:53 AM	ASCCAO Approval

8/17/2023

Dear NMS Panel,

Below are the panels comments and my responses for EEOB 3495: Research Ethics and Protocols in Behavior, Ecology and Evolution

I highlighted the suggested changes in the syllabus blue.

1. Comment: The Panel is supportive of the course and looks forward to having it as a part of the college's offerings.
2. The Panel asks that the department include in the syllabus a more detailed description of what a typical week looks like for students. They would like more information about how students' time will be spent each week so that students have a better idea of the expected workload.

   The syllabus now has a detailed description of a typical week and the expected workload in How this online course works (see also the Discussion Questions Description starting on P.5).

3. The Panel requests that the department provide more information on the direct instruction and instructor presence. The Panel acknowledges that direct instruction can take many forms in an online, asynchronous course such as this one; however, they would like to understand what it will look like in this course. For example, what content is being created or mediated by the instructor? How will students interact with the instructor and benefit from their expertise? They observed that the "boilerplate" language from the "How This Online Course Works – Credit hours and work expectations" section of the Distance Learning Template syllabus (pg. 2) has been altered to eliminate the usual reference to direct instruction, which raised some confusion. They ask that this information be included so that the syllabus better communicates to both the Panel and students how the expected two hours a week of direct instruction is being presented.

   The syllabus is revised to provide more information on direct instruction both in Pp. 2&3 (along with changes as depicted above -How this online course works) and Pp. 5& 6 Descriptions of major course assignments. Pages 5&6 also provide information requested on the assignment details and expected length of the discussion posts and final reflection paper (see below comment). In these revisions, you will also find specific information on the instructor's contribution to class discussions.

4. The Panel asks that the department provide additional information on the assignments, especially the expected length of the discussion posts and final reflection paper, details about how these written assignments will be evaluated, and a further explanation of how the course instructor will interact with students on the discussion boards. The final item is of particular interest since this seems to be the primary method of interaction between the instructor and the students (see feedback item #3 above).

   Discussion posts and final reflection paper details and the instructor's input are incorporated into the revised syllabus. They are in Pp. 5-7.

THE OHIO STATE UNIVERSITY

SYLLABUS
EEOB/3495

Research Ethics and Protocols in Behavior, Ecology and Evolution

Autumn 2023 (full term)
2 credit hours
Online

COURSE OVERVIEW

Instructor

Instructor: Dr. Zeynep Benderlioglu

Email address: benderlioglu.1@osu.edu (preferred contact method)

Phone number: 614 292 5965

Office hours: By appointment over zoom

Prerequisites

Minimum 3 credit hours in biological sciences or permission of the instructor

Course description

This course aims to equip students with important knowledge and skills in doing responsible and equitable research. We will learn how to adhere the health and environmental safety regulations mandated by the federal government in conducting ecological, environmental, and animal studies. Each student will then complete the online training on biosafety, occupational health, and animal subject research and learn how to write and submit research protocols to the respective units overseeing these protocols.

We will have weekly readings underlying these specific topics. We will then examine research conducted in EEOB that encompasses relevant protocol applications. For example, we will learn about predator avoidance in domestic horses by studying behavioral and physiological characteristics of the animals that will illuminate innate vs. learned behaviors. Furthermore, we will explore other research protocols on wild horses, the identification of genotypical and

phenotypical markers that differ from domesticated animals, as well as feral population distributions and their environmental impacts, including human-animal conflicts.

We will also explore other ethical concepts, such as conflict of interest, data management and use, and scientific misconduct, including plagiarism through case studies. We will additionally address important equity issues in designing, supporting, and communicating research. We will learn how the geographical location, income and technological development status of research-generating countries, and the race, gender, ethnicity, and language of research teams may carry an inherent bias in scientific recognition, funding, and publishing opportunities reducing research benefits for underserved populations.

Course learning outcomes

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

- learn the principles of responsible research practices and scientific integrity
- fulfill the institutional requirements for conducting research in biological sciences
- understand current issues in biology, especially those that have significant ethical and societal implications, and communicate scientific concepts and processes.

- understand the factors that underline environment-organism interactions and address broader implications of research conducted in these fields.

HOW THIS ONLINE COURSE WORKS

Mode of delivery: This course is 100% online delivered asynchronously. There are no required sessions when you must be logged in to Carmen at a scheduled time.

Pace of online activities: This course is divided into learning modules with the content released twice a week. Students are expected to keep pace with these weekly postings.

Credit hours and work expectations: This is a **2-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 4 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Accordingly, a typical course week will be two 60-minute-long lecture equivalent of online instruction. That is, a 60-min face-to-face instruction of course material will be translated into a recorded session and/or written material or multimedia files on topics relevant to our class. This will be done every Tuesday and Thursday. These materials will constitute the basis of a *Discussion Forum* that will be active during the entire semester. Discussion questions in this forum will be due on every Monday unless otherwise stated.

Attendance and participation requirements: Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of students' expected participation:

- **Participating in online activities (lectures, discussion forum)**: **AT LEAST THREE TIMES PER WEEK.**
  This follows our twice-weekly postings of lecture material and discussion forum questions. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible.*
- **Office hours and live sessions**: **OPTIONAL**
  All live, scheduled events for the course, including my office hours, are optional. However, I encourage you to arrange individual meetings/conferences on your final reflection essay towards the last weeks of the semester. See below for *Descriptions of Major Course Assignments* for details on the final paper.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

Recommended
- Steneck, Nicholas H. (2004). Revised edition. Introduction to the Responsible Conduct of Research, Office of Research Integrity, U.S. Department of Health and Human Services. Available at:
  https://www.amazon.com/Introduction-Responsible-Conduct-Research-2004/dp/0160722853/ref=sr_1_1?crid=2XJE82HN80YXW&keywords=ori+introduction+to+the+responsible+conduct+of+research&qid=1674424040&sprefix=ori+introduct%2Caps%2C106&sr=8-1
- **Additional Readings:** Reading assignments on articles, other course materials, lecture notes, and handouts will be posted on CARMEN (**http://carmen.osu.edu/**). The readings will be the standard length of scientific research articles published in peer-reviewed journals, book chapters, and/or newspaper pieces. You should expect no more than 3 full-length articles per week. Training module readings are the same length as book chapters.

Course technology

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)
- Recording a slide presentation with audio narration (go.osu.edu/video-assignment-guide)
- Recording, editing, and uploading video (go.osu.edu/video-assignment-guide)

Required equipment

- Computer: current Mac (MacOs) or PC (Windows 10) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

Required software

- Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Full instructions for downloading and installation can be found at go.osu.edu/office365help.

Carmen access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:
- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (go.osu.edu/add-device).
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.

- Download the Duo Mobile application (go.osu.edu/install-duo) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

ASSIGNMENT CATEGORY	POINTS
Responsible Conduct of Research (RCR) Online Training Module	5
The Institutional Animal Care and Use Committee (IACUC) Training	10
BioSafety and Environmental Health Training	5
Data Management and Data Protection	30
Discussion Questions/Participation	20
Reflection Paper	30
Total	**100**

See course schedule below for due dates.

Descriptions of major course assignments

Discussion Questions

Description: Each week, I will post class readings, recorded lectures, and other materials on Carmen on topics relevant to our class. I will then open a discussion question (DQ) thread headlining a particular topic. Discussion forum entries will provide the groundwork for ensuring that you are an active participant and have thoroughly reviewed and reflected on the class content.

Each student will then submit at least 1 unique discussion question or comment based on the thread.

These are our rules:

a.   Your question should be derived directly from the thread and readings/recordings assigned.
b.   You must read all the discussion points written by your classmates. Therefore, you should not repeat what is already been posted.
c.   You can comment on a question a classmate has posted.
d.   You can post more than one question, but there is no extra credit. However, keep in mind that these discussions are used to constitute the basis of your final reflection paper. There is no harm in engaging in more than one posting.
e.   You must be courteous. I reserve the right to remove the posts that lack civility from the thread.
f.   Once the thread closes, no entries will be accepted. Check the Carmen site regularly.

Your questions/comments will be graded as participation points (**total 20 points**). Every time I open a DQ, I will also post how many points you can earn. There will be many DQs. Take them seriously and don't discount individual ones as negligible, because missed points will certainly accumulate throughout the semester. DQs will be due by Mondays at 11:59 pm unless otherwise stated. They will also be marked on the calendar.

I will not reduce any points from the first DQ posted for the class due first Monday to help you understand what's acceptable for a 100% designation by giving you feedback. You must follow these guidelines closely. After the first individual feedback, I will start replying to the DQ forum publicly, also adding web links and multimedia files based on the flow of the class and type of discussion questions. When I grade your DQ assignments, I will also provide individual feedback as I deem appropriate if your reflection lacks rigor, or civility, or requires more engagement or articulation. You will of course receive my further encouragement if you satisfy all DQ requirements.

100% of the total points posted - A well-thought question/comment that incorporates readings and other materials: This will directly address to the thread and/or can be extrapolated from it. In addition, the answer/comment cannot be found in the materials posted. See below on what constitutes a good question/comment.

50% - Demonstrates little effort and/or addresses only the terminology without in-depth thought about the material. Repeat violations of questions asking only terminology/dictionary items and/or recounting points that are already raised in readings/recordings will be counted as 0.

0% – The following warrants 0 percentage points:
a.   No question/comment has been submitted.
b.   The same question/comment has already been posted by a classmate. This point emphasizes the need to read all items in the thread.
c.   The student repeatedly asks terminology/dictionary terms.
d.   The post is irrelevant to the thread content and/or violates our principles of being courteous.

Final Reflection Paper

At the end of the term, you will use the DQ forum posts to form a final reflection paper on ethics, research, and equity practices (**30 points**).

The guidelines for the final reflection paper will be posted closer to the end of the semester based on the class flow (i.e., forum entries). Briefly, you will be identifying, questioning, and critically evaluating one of the topics you learned in this course integrating your own observations, beliefs, and experiences, including readings into a **minimum two-page-long essay** (single space).

Data Management and Data Protection Assignment

Description: There will be an essay-type assignment on data management. You will be answering questions on research cases where you will discuss: a) types of data, including creation of adequate metadata; b) policies for storing & sharing your data (privacy, confidentiality, and copyright issues); c) policies for re-use and secondary sources; d) plans for long-term storage; roles & responsibilities for all parties using data (**30 points**)

Academic integrity and collaboration: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work. Please review the communication guidelines below.

Training Modules

Description: There will be 3 asynchronous online training modules, which include quizzes within the modules (**20 points total**). Online training modules are provided through OSU's Office of Responsible Research Practices. They are self-paced; in that you can save your answers then continue taking the embedded quizzes within the deadline stated on the weekly schedule. Certification by OSU upon completion of the courses will be considered as a full grade earned from that particular assignment. For example, an animal use training module on OSU will grant you a certification if you earn 80% from the embedded quiz. I will then consider that assignment complete and grant you 10 points (the full grade). If you fail to achieve 80% from the quiz in the rare circumstances, then you can retake it multiple times. Course/quiz links will be provided as the class progresses.

Academic integrity and collaboration: You must complete the quizzes yourself, without any external help or communication. The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Late assignments

Late submissions will not be accepted. Please refer to Carmen for due dates.

Grading scale

Grade Scale: Your final grade will be based on the following scale:
93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70 –72.9: C-
67 –69.9: D+
60 –66.9: D
Below 60: E

There are no extra credits. However, minor adjustments may be made based on improvement and/or participation. Course policies regarding the assignments are outlined below.

Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-4357(HELP)** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.

- **Email:** I will reply to emails within **24 hours on days when class is in session at the university**.

- **Discussion board:** I will check and reply to messages in the discussion boards every **24 hours on school days**.

OTHER COURSE POLICIES

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style**: While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility**: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources**: When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work**: Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

See **Descriptions of major course assignments**, above, for my specific guidelines about collaboration and academic integrity in the context of this online class.

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct **http://studentlife.osu.edu/csc/**.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.
If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.
Other sources of information on academic misconduct (integrity) to which you can refer include:
- Committee on Academic Misconduct web page (go.osu.edu/coam)
- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)
- Eight Cardinal Rules of Academic Integrity (go.osu.edu/cardinal-rules)

Student Services and Advising

University Student Services can be accessed through BuckeyeLink. More information is available here:
https://contactbuckeyelink.osu.edu/

- In addition, consider using academic advising services at OSU main campus at http://advising.osu.edu/welcome.shtml

As one of the main points of contact between students and the university, advisors help create academic plans that meet your educational and career goals while connecting you to appropriate resources that help keep you on track towards your major.

- Other information concerning the management of the academic program, student services, including financial aid, can be found through buckeyelink at http://ssc.osu.edu

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

▶ All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.

The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand mental health resources (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at 614- 292-5766. **24-hour emergency help** is available through the National Suicide Prevention Lifeline website (suicidepreventionlifeline.org) or by calling 1-800-273-8255(TALK). The Ohio State Wellness app (go.osu.edu/wellnessapp) is also a great resource.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting Accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services (SLDS). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

Phone: 614-292-3307

Website: slds.osu.edu

Email: slds@osu.edu

In person: Baker Hall 098, 113 W. 12th Avenue

Land Acknowledgement

We would like to acknowledge the land that The Ohio State University occupies is the ancestral and contemporary territory of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe and Cherokee peoples. Specifically, the university resides on land ceded in the 1795 Treaty of Greeneville and the forced removal of tribes through the Indian Removal Act of 1830. I/We want to honor the resiliency of these tribal nations and recognize the historical contexts that has and continues to affect the Indigenous peoples of this land.

More information on OSU's land acknowledgement can be found here:

https://mcc.osu.edu/about-us/land-acknowledgement

Accessibility of course technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.
- Canvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)
- Collaborative course tools

COURSE SCHEDULE

Refer to the Carmen course for up-to-date assignment due dates. Discussion question topics will be announced during the term.

Week	Dates	Topics, Readings, Assignments, Deadlines
1	Week of Aug 22	Introduction: An Overview of Research Ethics Federal Regulations

Week	Dates	Topics, Readings, Assignments, Deadlines
		Office of Responsible Research Practices (ORRP) at OSU – **https://orrp.osu.edu/**
		Sample Protocols on Animal Behavior
		Carmen Week 1 Readings
2	Week of Aug 28	Animal research ethics
		Overview of IACUC
		Discussion Questions due every Monday @ 11:59 pm unless stated otherwise.
		Carmen Week 2 Readings
3	Week of Sep 4	Writing Research Protocols involving animals
		Case Studies
		DQs due on Tuesday @ 11:59 pm due to Labor Day
		Carmen Week 3 Readings
4	Week of Sep 11	Intro to human research ethics
		Informed Consent
		Conflict of Interest
		RCR Due September 28 @ 11:59 pm
		Carmen Week 6 Lecture Notes
5	Week of Sep 18	Writing Protocols involving Human Subjects
		Carmen Week 4 Readings
6	Week of Sep 25	Biosafety and Occupational Health Training
		Case Studies
7	Week of Oct 2	Museum Ethics
		Online Repositories and their Use
		IACUC Module Training due on Oct 5 @ 11:59 pm
		Carmen Week 7 Lecture Notes
8	Week of Oct 9	October 12-13 Autumn Break
		Protocols involving DNA

Week	Dates	Topics, Readings, Assignments, Deadlines
		Sample Protocol: Genotypical and Phenotypical Differences between Domestic Horses and Feral Populations
		Carmen Week 8 Lecture Notes
9	Week of Oct 16	Wildlife Research Ethics
		Sample Protocols: Feral Swine and Feral Horses in the US
		Data and Metadata Management
		Privacy, Quality, Institutional Requirements on Data Ownership
		Carmen Week 9 Lecture Notes
10	Week of Oct 23	Management of Wildlife Populations: Human-Animal Conflict
		Biodiversity and Colonialism
		Carmen Week 10 Lecture Notes
11	Week of Oct 30	Racial Disparities in Human Subject Research
		Biological Differences vs. Social and Environment Factors
		Case Studies: Andean Populations and Tribal Societies: Evolutionary Adaptations and Social Factors
		Carmen Week 11 Lecture Notes
12	Week of Nov 6	Equity in Research
		Lack of Diversity in Ecology and Evolutionary Biology
		Geography, Culture, Technology, and Gender: Factors Determining the Beneficiaries of Research
		Data Management Assignment due on November 9 @ 11:59 pm
		Carmen Week 12 Readings
13	Week of Nov 13	Research Collaboration & Team Science
		Ethical Issues Regarding Collaborative Work and Mentor-Mentee Relationship
		Scientific Misconduct Case Analyses:
		From plagiarism to fabrication to Chatbots
		Carmen Week 13 Readings
14	Week of Nov 20	Authorship, Peer-review
		Resolving Ethical Conflicts in Research Studies

Week	Dates	Topics, Readings, Assignments, Deadlines
		Carmen Week 14 Readings
		Thanksgiving Break November 22-24 WF
15	Week of Nov 27	Carmen Week 15 Lecture Notes
16	Week of Dec 4	Overview of Research Ethics
		Inclusiveness in Undergraduate Research
		Reflection Paper Guidelines and Discussion
		Last Day of Classes Wednesday Dec 6
Final Paper		*December 11 due @ 11:59 pm*

Distance Approval Cover Sheet

For Permanent DL/DH Approval | College of Arts and Sciences

Course Number and Title:

Carmen Use

When building your course, we recommend using the [ASC Distance Learning Course Template](#) for CarmenCanvas. For more on use of [Carmen: Common Sense Best Practices](#).

☐ A Carmen site will be created for the course, including a syllabus and gradebook at minimum.

If no, why not?

Syllabus

☐ Proposed syllabus uses the ASC distance learning syllabus template, includes boilerplate language where required, as well as a clear description of the technical and academic support services offered, and how learners can obtain them.

☐ Syllabus is consistent and is easy to understand from the student perspective.

☐ Syllabus includes a schedule with dates and/or a description of what constitutes the beginning an end of a week or module.

☐ If there are required synchronous sessions, the syllabus clearly states when they will happen and how to access them.

Additional comments (optional):

Instructor Presence

For more on instructor presence: [About Online Instructor Presence](#).

Students should have opportunities for regular and substantive academic interactions with the course instructor. Some ways to achieve this objective:

☐ Regular instructor communications with the class via announcements or weekly check-ins.

☐ Instructional content, such as video, audio, or interactive lessons, that is visibly created or mediated by the instructor.

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☐ Regular participation in class discussion, such as in Carmen discussions or synchronous sessions.

☐ Regular opportunities for students to receive personal instructor feedback on assignments.

Please comment on this dimension of the proposed course (or select/explain methods above):

Delivery Well-Suited to DL/DH Environment

Technology questions adapted from the Quality Matters rubric. For information about Ohio State learning technologies: Toolsets.

☐ The tools used in the course support the learning outcomes and competencies.

☐ Course tools promote learner engagement and active learning.

☐ Technologies required in the course are current and readily obtainable.

☐ Links are provided to privacy policies for all external tools required in the course.

Additional technology comments (optional):

Which components of this course are planned for synchronous delivery and which for asynchronous delivery? (For DH, address what is planned for in-person meetings as well.)

If you believe further explanation would be helpful, please comment on how course activities have been adjusted for distance learning (optional):

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Workload Estimation

For more information about calculating online instruction time: ODEE Credit Hour Estimation.

☐ Course credit hours align with estimated average weekly time to complete the course successfully.

☐ Course includes direct (equivalent of "in-class") and indirect (equivalent of "out-of-class") instruction at a ratio of about 1:2.

Provide a brief outline of a typical course week, categorizing course activities and estimating the approximate time to complete them or participate:

☐ In the case of course delivery change requests, the course demonstrates comparable rigor in meeting course learning outcomes.

Accessibility

For more information or a further conversation, contact the accessibility coordinator for the College of Arts and Sciences. For tools and training on accessibility: Digital Accessibility Services.

☐ Instructor(s) teaching the course will have taken Digital Accessibility training (starting in 2022) and will ensure all course materials and activities meet requirements for diverse learners, including alternate means of accessing course materials when appropriate.

☐ Information is provided about the accessibility of all technologies required in the course. All third-party tools (tools without campus-wide license agreements) have their accessibility statements included.

Description of any anticipated accommodation requests and how they have been/will be addressed.

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Additional comments (optional):

Academic Integrity

For more information: Academic Integrity.

☐ The course syllabus includes online-specific policies about academic integrity, including specific parameters for each major assignment:

☐ Assignments are designed to deter cheating and plagiarism and/or course technologies such as online proctoring or plagiarism check or other strategies are in place to deter cheating.

Additional comments (optional):

Frequent, Varied Assignments/Assessments

For more information: Designing Assessments for Students.

Student success in online courses is maximized when there are frequent, varied learning activities. Possible approaches:

☐ Opportunities for students to receive course information through a variety of different sources, including indirect sources, such as textbooks and lectures, and direct sources, such as scholarly resources and field observation.

☐ Variety of assignment formats to provide students with multiple means of demonstrating learning.

☐ Opportunities for students to apply course knowledge and skills to authentic, real-world tasks in assignments.

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Comment briefly on the frequency and variety of assignment types and assessment approaches used in this course (or select methods above):

Community Building

For more information: Student Interaction Online.

Students engage more fully in courses when they have an opportunity to interact with their peers and feel they are part of a community of learners. Possible approaches:

☐ Opportunities for students to interact academically with classmates through regular class discussion or group assignments.

☐ Opportunities for students to interact socially with classmates, such as through video conference sessions or a course Q&A forum.

☐ Attention is paid to other ways to minimize transactional distance (psychological and communicative gaps between students and their peers, instructor, course content, and institution).

Please comment on this dimension of the proposed course (or select methods above):

Transparency and Metacognitive Explanations

For more information: *Supporting Student Learning*.

Students have successful, meaningful experiences when they understand how the components of a course connect together, when they have guidance on how to study, and when they are encouraged to take ownership of their learning. Possible approaches:

☐ Instructor explanations about the learning goals and overall design or organization of the course.

☐ Context or rationale to explain the purpose and relevance of major tasks and assignments.

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☐ Guidance or resources for ancillary skills necessary to complete assignments, such as conducting library research or using technology tools.

☐ Opportunities for students to take ownership or leadership in their learning, such as by choosing topics of interest for an assignment or leading a group discussion or meeting.

☐ Opportunities for students to reflect on their learning process, including their goals, study strategies, and progress.

☐ Opportunities for students to provide feedback on the course.

Please comment on this dimension of the proposed course (or select methods above):

Additional Considerations

Comment on any other aspects of the online delivery not addressed above (optional):

Syllabus and cover sheet reviewed by *Jeremie Smith* on

Reviewer Comments:

Additional resources and examples can be found on ASC's Office of Distance Education website.

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