



## Biology 390 "Animal Behavior"

**Instructor:** Dr. Debbie Schlenoff [schlenof@uoregon.edu](mailto:schlenof@uoregon.edu)

Office: 15A Klamath

Office hours: Mondays 10:30, after lecture, and by appointment

**GEs:** Claire Goodfellow [cgoodfel@uoregon.edu](mailto:cgoodfel@uoregon.edu)

Office Hr: Tuesday 2-3PM in KLA 32

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**Biology Undergraduate Assistants:** Lillian Carroll [lc Carroll@uoregon.edu](mailto:lc Carroll@uoregon.edu)

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SLP courses include General Education courses for non-science majors and courses for science majors taught by teams of faculty, graduate fellows, and undergraduate scholars, who will include opportunities during class-time for you to engage with the class topics through a variety of activities. For more information about the program [scilit.uoregon.edu](http://scilit.uoregon.edu)

**Course Description:** **Animal behavior** is a multidisciplinary science devoted to understanding the variety of behaviors that contribute to biological diversity on our planet. We will study the foundational concepts and principles of animal behavior and use case studies and examples to illustrate and develop an appreciation for the many interesting things that animals do to survive and reproduce. Our primary focus will be the adaptive significance of behavior. We will explore how behavior contributes to an individual's survival and the successful transmission of an individual's genes across generations. The prerequisite for this course is either Bi213 or Bi253.

**Website:** Course documents will be posted in "Files" on the **Canvas** Course Website.

**Readings**, mostly journal articles from the scientific literature, are **required** reading for this course. These readings will be available on Canvas. The readings will be announced in class and on Canvas. We will be actively engaged in discussing the readings during class so please read them *before* the due date. Although there is no required textbook for the course, there are some excellent textbooks in Animal Behavior that might be helpful to your studies. Please inquire if you want recommendations for a textbook.

## Course Objectives

- Learn fundamental principles and concepts in animal behavior.
- Apply these principles to help understand the variety of behaviors and traits observed in the animal kingdom.
- Improve scientific literacy skills such as interpreting graphs and analyzing journal articles.
- Critically examine methodology and experimental design used to research animal behavior.
- Creatively pursue ways to frame useful questions about animal behavior and develop research proposals.
- Independently research, evaluate, and communicate ideas in animal behavior.
- Collaboratively explore ways to acquire data from animal observation.
- Connect how we think about other animals in relation to our own capabilities.
- Gain an appreciation for the diversity of the natural world!

## Course Format

*Lectures* in 101 LIB, 12:00-1:20 MW

You will be responsible for all material presented in lecture. *There is a strong positive correlation between attendance in lecture and class grades.*

The course schedule is tentative and subject to change; adjustments will be announced in class.

Lecture meetings will be a mix of lecture and discussion. Discussions will include questions on assigned readings, so I have a strong expectation that you will have read the material before coming to class and arrive ready to participate. There are group and writing activities that occur during lecture. Your active involvement promotes understanding of the material and preparation for exam questions.

Lecture outlines containing the PowerPoint slides will be available on Canvas. Please keep in mind that these are merely outlines for your convenience in taking and organizing notes. They are not meant to serve as a complete set of lecture notes when studying the material.

Questions are welcome and encouraged during and after lecture, during office hours, and via e-mail.

*Discussion Sections* 112 HUE, Thursdays (12:00, 1:00, or 2:00.) Please attend the section for which you are registered.

Participation in discussion sections is a required part of this class and will count toward your final grade. Occasionally there will be short graded assignments associated with discussion section activities. These will be announced in class and on Canvas. Sections will provide an opportunity to explore experimental design, to discuss some of the topics presented in class, to discuss projects, or to engage in participatory activities.

## Grading Evaluation:

25% Midterm Exam

25% Final Exam

9% Ethogram Project

20% Term paper

+2% Electronic comments, questions and answers on term paper abstracts

9% Section participation and assignments

10% Reading quizzes/ reading questions

**Total = 100%**

**Exams:** Exams will include material from the lectures, assigned readings and videos, in-class activities, discussion sections, and the video clips shown in class.

Exams will be mixed format (short answer, multiple choice, short essay). Details will be announced in class.

***Make-up Exam Policy:*** There will be **NO make-up exams** except in the case of a documented severe medical condition or other extreme documentable emergency. It is your responsibility to contact the instructor as soon as possible.

### **Ethogram Project:**

See Canvas for detailed information. Due as hard copy on **1/31**.

You will work in pairs (groups of two) to develop an ethogram for an animal easily observed outside of class. Project Steps:

1. Initial Observations. Create an observation sheet/ethogram.
2. Data collection: Make observations to complete an ethogram and quantify behavior. You and your partner will make observations simultaneously on the same subject(s) but each of you will independently record the ethogram.
3. Independently write up summary of observations and comparison of results.
4. Research proposal: Propose a question, hypothesis, and experiment based on your preliminary results.

**Term Project:** Each of you will independently research a topic in animal behavior that results in an individually written seven page term paper which will be handed in as a hard copy as well as submitted as a digital copy through “Vericite” on Canvas on **2/28**. In the paper, you will synthesize information from the scientific literature to address a question, problem, or idea. The paper will include an analysis of two to three data figures from your sources and a Project Proposal component: What research would you propose to gather more data that would further elucidate your chosen topic?

Interactive abstract postings: You will post an abstract of your paper on Canvas and will be expected to comment on some abstracts posted by other students. You will respond to comments from other students in the class. More details about the project requirements will be provided.

**Class Participation** This course requires more than sitting as a warm body in class. Please come to class prepared to participate in self-reflection, group work, and class discussions. Participation includes respect for your learning community by being on time, turning off cell phones, and paying attention during class.

**Reading Quiz/Questions:** For each lecture, students are expected to answer the Reading Questions posted on Canvas in preparation for discussing the articles. Pre-class discussion questions are designed to prepare you to fully participate in the class activities. On some days we will provide credit for your completed answers and on others, we will present a short quiz on the reading. The two lowest grades will be dropped. Make-ups will not be administered.

**Discussion Activities and Assignments:** Your score for each week will be determined by attendance, participation, and completion of any assigned homework or class exercises. One of these assignments will be a term paper draft for peer review on 2/21. Further instructions about assignments will be provided.

### **Office Hours:**

We are here to help guide your learning and help you succeed during the course. We are available during office hours to answer questions about this course or provide additional resources. We invite you to come visit us, so we can meet you and learn more about your interests. Office Hours are a great way to make connections with faculty and graduate students, which may be helpful when you need future letters of

recommendation or academic advice. Note that I will also stay in the classroom after lecture to speak with anybody who wants to ask questions, or discuss their interests or concerns.

### **A few things to help you succeed in this course**

1. Attend classes.
2. Complete the readings and assignments before class.
3. Participate and engage in every class activity.
4. Attend office hours and review sessions.
5. When questions arise, send me an email, see me after class, or visit office hours.
6. Start your projects early. As you develop your ideas for hypotheses and experiments, be curious, detailed, and diligent.
7. Keep track of all your assignments with the course calendar and transfer everything to your personal calendar throughout the term so there are no surprises.
8. Study material over a number of relatively short sessions with repeated review. Interacting with the material is a good way to learn it. Don't just read it- Write it, explain it, and discuss it.

### **Class Courtesy**

Please arrive in class on time. Late arrivals distract the instructor and the other students. Please turn off cell phones during the class meeting times. Use your laptop only for class activities. Do not leave class early unless you have cleared it with the instructor in advance. Ask questions if you did not hear or understand something. Contribute to your group: Everybody is expected to come to class prepared to discuss the readings and to engage in small group discussion.

Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter (or before) so that I may address you properly.

Open inquiry, freedom of expression, and respect for difference are fundamental to a comprehensive and dynamic education. We are committed to upholding these ideals by encouraging the exploration, engagement, and expression of divergent perspectives and diverse identities. Classroom courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Our classroom is a learning environment, and as such should be a safe, inclusive and respectful place. Being respectful also includes using preferred pronouns for your classmates. Disrespecting fellow students as well as combative approaches, tones and/or actions are not acceptable. Please make me aware if there are classroom dynamics that impede your (or someone else's) full engagement.

### **Academic integrity**

All students will be expected to adhere to the University's guidelines on academic integrity as outlined in the Student Conduct Code: <https://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code>. As detailed in the policy, academic misconduct means the violation of university policy involving academic integrity. This includes cheating ("any act of deception by which a student misrepresents or misleadingly demonstrates that the student has mastered information on an academic exercise that the student has not mastered"), and plagiarism ("using the ideas or writings of another as one's own.") The instructor has a zero tolerance policy for academic dishonesty. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures.

## **Campus resources to support your learning**

If you are having a problem that interferes with your ability to do the work in this class, please tell us about it as soon as you can. We may be able to refer you to someone for help or to make special arrangements if the need is real and if you have done your best to deal with the situation in a timely manner.

*Tutoring and Academic Engagement Center* (<https://engage.uoregon.edu/services/>) Drop-in math and writing support in addition to tutoring, study skills support, and Class Encore. Located in the 4<sup>th</sup> Floor Knight Library (541) 346-3226, [engage@uoregon.edu](mailto:engage@uoregon.edu).

*Counseling Center* Call anytime to speak with a therapist who can provide support and connect you with resources. Located on the 2<sup>nd</sup> Floor of the Health Center (541) 346-3227

*Accessible Education Center* The University of Oregon is working to create inclusive learning environments. The instructor believes strongly in creating inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your participation, please notify us as soon as possible. You are also encouraged to contact the Accessible Education Center. If you are not a student with a documented disability, but you would like for us to know about class issues that will impact your ability to learn, we encourage you to come visit during office hours so that we can strategize how you can get the most out of this course. Located on the 1<sup>st</sup> Floor of Oregon Hall (541) 346-1155, [uoac@uoregon.edu](mailto:uoac@uoregon.edu)

*Center for Multicultural Academic Excellence (CMAE)* mission is to promote student retention and persistence for historically underrepresented and underserved populations. We develop and implement programs and services that support retention, academic excellence, and success at the UO and beyond. We reaffirm our commitment to all students, including undocumented and tuition equity students. Located on the 1<sup>st</sup> Floor of Oregon Hall (541) 346-3479, [cmac@uoregon.edu](mailto:cmac@uoregon.edu)

The *UO Access Shuttle* is an on-campus ride service provided at no cost to students with conditions that limit mobility. More information and a sign-up form can be found on the parking & transportation department website: <https://parking.uoregon.edu/content/access-shuttle>.

## **Discrimination and Harassment**

### *Prohibited Discrimination and Harassment*

Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at [safe.uoregon.edu](https://safe.uoregon.edu). To get help by phone, a student can also call either the UO's 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at [respect.uoregon.edu](https://respect.uoregon.edu) or [aaeo.uoregon.edu](https://aaeo.uoregon.edu) or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at [Discrimination & Harassment](#).

### *Reporting*

The instructor of this class is a Student-Directed Employee. As such, **if you disclose to me, I will respond to you with respect and kindness. I will listen to you, and will be sensitive to your needs and desires. I will not judge you. I will support you.** As part of that support, I will direct students who disclose sexual

harassment or sexual violence to resources that can help. **I will only report the information shared to the university administration when you as the student requests that the information be reported** (unless someone is in imminent risk of serious harm or is a minor). Please note the difference between ‘privacy’ and ‘confidentiality.’ As a Student-Directed Employee I can offer privacy because I am not required to report certain information to the university. However, I cannot be bound by confidentiality in the same way that a counselor or attorney is. Confidential resources such as these means that information shared is protected by federal and state laws. Any information that I as a student-directed employee receive may still be accessed by university or court proceedings. This means, for example, that I could still be called as a witness or required to turn over any related documents or notes that I keep.

Please note also that I am required to report all other forms of prohibited discrimination or harassment to the university administration. Specific details about confidentiality of information and reporting obligations of employees can be found at [titleix.uoregon.edu](http://titleix.uoregon.edu).

#### *Mandatory Reporting of Child Abuse*

UO employees, including faculty, staff, and GEs, are mandatory reporters of child abuse. Child abuse pertains to individuals who are under the age of 18. This statement is to advise you that your disclosure of information about child abuse to the instructor may trigger my duty to report that information to the designated authorities. Please refer to the following links for detailed information about mandatory reporting: [Mandatory Reporting of Child Abuse and Neglect](#).

#### **Safe Ride**

**541-346-7433 ext 2**

[pages.uoregon.edu/saferide](http://pages.uoregon.edu/saferide)

Safe Ride is an **assault prevention shuttle** that works to provide free, inclusive, and accessible alternatives to traveling alone at night for **UO students, faculty, and staff**. We are a schedule-ahead service and riders can (1) call once we open to schedule a ride with a dispatcher or (2) leave a voicemail on the day of their ride request. We do not call riders ahead of time to confirm due to capacity constraints, but riders are always welcome to call us to double-check that their ride was scheduled. We are a feminist, ‘for-the-students/by-the-students’ organization and operate out of the Women’s Center in EMU 12F.

Operating hours:

**Spring term** Sunday - Thursday | 7p - midnight

Friday + Saturday | 7p - 2a

**Summer term** Sunday - Thursday | 9p - midnight

Friday + Saturday | 9p - 2a

**Fall/Winter term** Sunday - Thursday | 6p - midnight

Friday + Saturday | 6p - 2a

Policy and rules: 1. We are a **schedule-ahead service**, we **do not call ahead**, and we can only wait for riders for 5 minutes at their pick-up time and location.

2. We only give rides to groups of **3 or fewer** to prioritize groups that are at higher risk. 3. We are a **free service** and do not accept tips.

WK	Lecture Topics ( <i>Tentative Schedule</i> )	Discussion Section (Thursdays)
	Standard Grade	
1	1/7 Introduction and the Study of Animal Behavior 1/9 Proximate and Ultimate Levels of Analysis. Natural Selection. <b>Reading: Holekamp and Sherman. (For all future classes, see Canvas for upcoming class reading assignments.)</b>	<b>1/10 Read Syllabus and Project documents.</b> Discuss projects. Form teams. Video ethograms.
2	1/14 Behavioral Genetics and Adaptation 1/16 Optimality, ESS, Adaptations	<b>1/17 Reading assignment on Canvas.</b> Sowbug Activity- data acquisition and hypothesis testing. Ethogram check-in.
3	1/21 MLK Day. No lecture. 1/23 Adaptations for finding food. Optimal Foraging.	<b>1/24. Optimal Foraging simulation activity. Submit tentative term paper topic + a potential reference.</b>
4	1/28 Predator Prey Interactions 1/30 Anti-predator Adaptations	<b>1/31 Ethogram Project due.</b> Butterfly density and mimicry-simulation activity
5	2/4 Sexual Selection 2/6 Honest Signaling	<b>2/7 Case study on sexual selection</b> <i>Finalize term paper statement of purpose. Identify reference with data figure. Print out your data figure for next week.</i>
6	2/11 Mating Systems 2/13 Midterm Exam	<b>2/14 Graph Interpretation assignment.</b> We will be analyzing graphs in section. <i>Activity TBA</i>
7	2/18 Parental Care 2/20 Social Behavior	<b>2/21 Term paper draft due in section.</b> Peer review of Term paper.
8	2/25 The Evolution of Altruism 2/27 Social Insects	<b>2/28 Term paper DUE</b> Altruism case study activity. Evolution of cooperation (prisoner's dilemma).
9	3/4 The Evolution of Cooperation 3/6 Social Intelligence	<b>3/7 Discussion on animal welfare. Please read posted document. View the video and complete the assignment.</b>
10	3/11 "The Minds of Animals" 3/13 Conclusions	<b>3/14 Discussion and Review</b>
<b>Final Exam: 10:15 Wednesday, March 20</b>		

Scale		
Letter Grade	From	To
A+	97	100
A	93	96.9
A-	90	92.9
B+	87	89.9
B	83	86.9
B-	80	82.9
C+	77	79.9
C	73	76.9
C-	70	72.9
D+	67	69.9
D	63	66.9
D-	60	62.9
F	0	59.9

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### ***Academic Deadlines***

<b>Deadline</b>	<b>Last day to:</b>
January 6:	Process a complete drop (100% refund, no W recorded)
January 12:	Drop this course (100% refund, no W recorded; after this date, W's are recorded)
January 12:	Process a complete drop (90% refund, no W recorded; after this date, W's are recorded)
January 13:	Add this course
January 13:	Process a complete withdrawal (90% refund, W recorded)
January 13:	Withdraw from this course (100% refund, W recorded)
January 16:	Last day to change to or from audit
January 20:	Process a complete withdrawal (75% refund, W recorded)
January 20:	Withdraw from this course (75% refund, W recorded)
January 27:	Process a complete withdrawal (50% refund, W recorded)
January 27:	Withdraw from this course (50% refund, W recorded)
February 3:	Process a complete withdrawal (25% refund, W recorded)
February 3:	Withdraw from this course (25% refund, W recorded)
February 24:	Withdraw from this course (0% refund, W recorded)
February 24:	Change grading option for this course

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