

ANS 6040 Concepts in Applied Ethology – Syllabus Spring 2023

Course Title

ANS 6040 Concepts in Applied Ethology (3 credits)

Course Instructor and Office Hours

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Office hours – by appointment.

Time and Location

- Class is on Tuesdays from 9:30 – 12:30 (periods 3 – 5)
- We will meet in Room ANS 102 or via Zoom

Course Description and Objectives

This course introduces concepts and methods used to conduct research in the field of applied ethology. Course content includes an overview of mechanisms of animal behavior and approaches to measuring and modeling animal behavior. The focus is on developing skills necessary to conduct, analyze, and interpret research in applied ethology.

Upon completion of this course, students will be able to:

- Understand basic concepts in the field of applied ethology through discussion of both classic literature and current topics
- Explain and utilize principles of behavior science methodology, such as approaches to experimental design and methods of collecting behavioral data
- Critically analyze journal articles, provide clearly articulated peer review, and effectively communicate ideas in class discussions
- Apply concepts in applied ethology to interdisciplinary problems such as an animal welfare assessment
- Integrate principles covered in class in the development of a conceptual model for a behavior of interest

CLASS STRUCTURE

Course Website on Canvas: Our course website can be found through login to Canvas (<http://elearning.ufl.edu>). I will use Canvas as the primary means to contact you and share announcements. Grades and assignment feedback will also be made available to you. Resources, including the course syllabus, assigned and recommended readings, supplementary

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references, and lesson material, will be posted in Canvas. The lesson material (slides presented in class, as well as other related material) will be organized by topic within modules.

If you are not yet familiar with using CANVAS, please look at the Canvas 'Getting Started' Guide: guides.instructure.com/m/8470. To make sure you are not missing any announcement, please make sure your CANVAS settings are adjusted as follows:

- Go to your general **Canvas Settings** (upper right corner within CANVAS) > **Notifications** (left menu bar) > **Notification Preferences**: here set to **"ASAP"** for (at least) Announcements.

Lectures and course content: Some classes will be in person and some will be held via Zoom. Access Zoom meetings via the 'Zoom conferencing' tab in Canvas. See here for instructions on how to set-up Zoom through UF: <https://video.ufl.edu/conferencing/zoom/>

Many topics in the class will be explored through in-class discussion and activities related to assigned readings. We will both discuss together as a group and have subgroups focus and present on various topics within the context of class discussions. Certain topics will be presented with the aid of PowerPoint slides, images, and short video clips.

Each topic module links to a discussion thread, where you may post any comments or questions related to the content. I will be monitoring this thread and posting replies, and you are also welcome and encouraged to respond to your classmates' comments. Participation in class discussion (in person and discussion boards) will contribute to your 'Class Participation' grade, as described below.

Communication Expectations and Guidelines

Please reach out via Canvas inbox with any questions or to schedule a meeting. We also encourage you to post questions relating to the lecture material in the corresponding discussion thread to also benefit others who may have the same question.

Please review our course policy on a few topics important related to online security, including online security, written communication guidelines, communication with class instructor and TA, discussion board etiquette, and class etiquette:

<https://ufl.instructure.com/courses/422015/pages/communication-expectations-and-guidelines>

Textbook and required reading:

No formal textbook is required, but the following is recommended as a useful reference and will be referred to throughout the semester:

M. Bateson and P. Martin. (2021) *Measuring Behaviour: An Introductory Guide*. 4th Edition. Cambridge University Press.

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Key articles, including classic papers and review articles, will be used as a basis for classroom discussion on important topics. Assigned readings will be made available electronically. We will discuss the following readings on dates as follows:

- January 17** Duncan, I. J. H. 1995. An applied ethologist looks at the question “Why?”
Applied Animal Behaviour Science. 44:205-217.
Manning, A., and M. S. Dawkins. 1992. An Introduction to Animal Behaviour,
4th Ed., Cambridge University Press, UK (Questions about animal
behaviour, pp. 11-16)
- March 14** Lehner, P. N. 1996. Handbook of ethological methods, 2nd Ed., Cambridge
University Press. (A conceptual model of animal behavior, pp. 19-27, 37-
45)
Hughes, B. O., and I. J. H. Duncan. 1988. The notion of ethological ‘need’,
models of motivation and animal welfare. 1988. Animal Behavior.
36:1696-1707.
- March 21** Fraser, D. 2009. Assessing animal welfare: Different philosophies, different
scientific approaches. Zoo Biology. 28:507-518.
Ede, et al. 2019. Scientific assessment of affective states in dairy cattle. J. Dairy
Sci. 102:10677-10694.

In addition to the core readings I will assign reading of a number of peer-reviewed journal articles. These will illustrate different examples of behavioral methods that we will explore in class activities and discussion. The following list is a subset of articles that will be read prior to class discussions to serve as an example of what to expect:

- Rioja-Lang, F. C., D. J. Roberts, S. D. Healy, A. B. Lawrence, and M. J. Haskell. 2012. Dairy cows trade-off feed quality with proximity to a dominant individual in Y-maze choice tests. J. Dairy Sci. 117:159-164.
- Gaskill, B. N., S. A. Rohr, E. A. Pajor, J. R. Lucas, J. P. Garner. 2009. Some like it hot: Mouse temperature preferences in laboratory housing. Applied Animal Behavior Science. 116:279-285.
- Gaillard, C., R. K. Meagher, M. A. G. von Keyserlingk, D. M. Weary. 2014. Social housing improves dairy calves’ performance in two cognitive tests. Plos One. 9:1-6.
- Bailoo, J. D., E. Murphy, J. A. Varholick, J. Novak, R. Palme, and H. Wurbel. 2018. Evaluation of the effects of space allowance on measures of animal welfare in laboratory mice. Scientific Reports. 8:713.

In addition to the core readings, this course will require you to read extensively on a behavior topic of your choosing and select journal articles.

ASSIGNMENTS AND GRADING

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All activities will be graded according to rubrics posted on CANVAS. The final grade in the course will be assigned based on numeric average, as described below.

Marking scheme:

A	93-100%	B+	87-89.9%	C+	77-79.9%	D+	67-69.9%	E	< 60%
A-	90-92.9%	B	83-86.9%	C	73-76.9%	D	63-66.9%		
		B-	80-82.9%	C-	70-72.9%	D-	60-62.9%		

For information on current UF policies for assigning grade points, see

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Activity	Percentage of final grade
Assignment 1: Asking questions about behavior <i>Oral presentation on Jan 24</i> <i>Written report due Jan 31</i>	20%
Assignment 2: Answering questions about behavior <i>Oral presentation on Feb 14 or 21</i> <i>Written report due Feb 28</i>	20%
Assignment 3: Animal welfare journal discussion <i>Journal discussion on Mar 28</i>	15%
Assignment 4: Modeling a behavioral system <i>Oral presentation on Apr 11 or 18</i> <i>Written summary due Apr 25</i>	35%
Class participation	10%

Assignments: There will be four assignments throughout the term. Three assignments will involve both a written paper and an oral presentation, and one assignment will be a student-led journal discussion. These assignments are described in detail in the following pages of this syllabus. Specific instructions for each assignment and the journal discussion will be discussed in detail in class well in advance of the due date, and numeric rubrics will be shared.

Participation: The grade for participation will be determined based on 1) completion of peer-review requirements (providing feedback for classmates' oral presentations) and 2) class attendance and involvement in activities and discussions (during class sessions and/or on Canvas), according to the rubric posted on Canvas. To achieve a good grade for classroom involvement you should plan to come to class familiar with any assigned reading and prepared to discuss your thoughts. Involvement from all students is a critical component to achieving a well-balanced and productive discussion. On presentation days, be attentive to the other speakers and contribute questions.

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Absences, Make-up Work, and Late Assignments:

Please speak with me as soon as possible if you know you will be absent on a presentation day, as we will attempt to reschedule you. Classroom participation is expected and encouraged and regular attendance of lectures is required to obtain a good participation grade.

It is expected that all written assignments will be received on or before the stated deadline. However, if you feel you would benefit from some additional days to complete your assignment, please speak with me at least 24 h before the deadline – I am happy to accommodate extensions for any reason. However, if you miss an assignment deadline without speaking with me, my policy is to deduct 15 % from your grade for every day that the assignment is late.

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

CLASS SCHEDULE

Please note that this schedule is subject to change as we move through the term. Any significant changes will be discussed in class in advance of the lecture. Class dates are color-coded by the Module that they are grouped under: ‘Asking questions about animal behavior’ is **yellow**, ‘Answering questions about animal behavior’ is **green**, ‘Modeling animal behavior’ is **blue** and ‘Animal welfare and ethics’ is **orange**.

Week	Class date	Class topic	Deadlines
1	Jan 10	Introduction	
2	Jan 17	Asking questions about behavior - Discussion of assigned reading: Tinbergen’s questions	
3	Jan 24	Assignment 1 – Student presentations and discussion	Oral presentation peer-evaluations
4	Jan 31	Answering questions about behavior - Measuring behavior, experimental design - Activity: Designing an ethogram	Assignment 1 written paper due
5	Feb 7	Answering questions about behavior cont. - Measuring social behavior, designing choice tests - Guest lecture: Dr. Katey Burke	
6	Feb 14	Assignment 2 – Student presentations and discussion	
7	Feb 21	Assignment 2 – Student presentations and discussion	Oral presentation peer-evaluations
8	Feb 28	Learning and motivation - Discussion: Assessing motivation	Assignment 2 written paper due
9	Mar 7	Conceptual models of behavior - Discussion of assigned reading	
	March 14	Spring break	

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10	Mar 21	Behavior and animal welfare - <i>Discussion of assigned reading: Assessing affective state</i>	
11	Mar 28	Ethics in research - <i>Guest speakers from USDA Animal Welfare Information Center to discuss animal use in research</i>	
12	Apr 4	Assignment 3 journal discussion	*optional* submit literature review draft for feedback
13	Apr 11	<i>Assignment 4 – Student presentations and discussion</i>	
14	Apr 18	<i>Assignment 4 – Student presentations and discussion</i>	
	Apr 25		Assignment 4 written paper due

Technology requirements and privacy

Lectures during class sessions held via zoom may be audio visually recorded for students in the class to refer back to, and for students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. Discussion during breakout rooms will also not be recorded. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Computer requirements for this course are consistent with UF policy for student computing requirements, and likely similar to your other classes: <https://it.ufl.edu/policies/student-computing-requirements/>

This course uses **Canvas** for providing course content. Please see the links below for important information regarding privacy and accessibility of these tools:

Canvas (Infrastructure) privacy policy: <https://www.instructure.com/policies/privacy>

Canvas (Infrastructure) accessibility statement:
<https://www.instructure.com/canvas/accessibility>

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this

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commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

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

Software Use

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

Campus Helping Resources

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

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center:

<http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies).

<http://www.police.ufl.edu/>

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Academic Resources

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
<http://www.crc.ufl.edu/>

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<http://teachingcenter.ufl.edu/>

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>

Student Complaints Campus:
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Services for Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.