BIOL 3720L: Field Animal Behavior

Spring 2021

PROFESSOR:

TBD
Office hours on Sapelo during the semester: Open door policy & by appointment.
twpierson@gmail.com

CLASS MEETINGS:

This class is part of UGA's Marine Biology Spring Semester and is taught at the University of Georgia Marine Institute (UGAMI), located on Sapelo Island, GA. Courses in the Marine Biology Spring Semester follow a block schedule; students take one class at a time, which meets every day. In 2021, the Marine Biology Spring Semester will run from January 23 to April 30. BIOL 3720L will be taught during April 12 – April 30. This is an intensive, 3-credit-hour course that will take place predominantly in the field over 16 instructional days. Class will meet for approximately 6 hours per day, 4 days per week. The course consists of field exercises and lecture. Lectures will be held in the UGAMI teaching lab; however, meeting times and places will vary depending on the activities planned for the day. The class schedule will be posted in the teaching lab and on eLC.

TEXT:

Required Text: Dugatkin, L. A. 2013. *Principles of Animal Behavior, 3rd ed.* W. W. Norton & Company, Inc., New York, NY. 672pp. (Subject to Change)

Additional Readings: Readings from the primary literature will also be assigned, and will be made available on eLC.

GRADING:

Course grades will be based on one exam worth 15% of the total grade; four (weekly) laboratory reports each worth 10% of total grade (40% combined total); a research report worth 15% of the total grade; a field journal worth 10% of the total grade; a communication piece worth 10% of the total grade; and attendance/class participation worth 10% of total grade.

Letter-Grades: The following is a general guide for letter-grade assignment in this course. The exact correspondence between calculated number grades and assigned letter-grades is at the discretion of the course professors.

		89.99 – 87.00	B+	79.99 – 77.00	C+	69.99 – 60.00	D
100 – 93.00	A	86.99 – 83.00	B	76.99 – 73.00	C	< 60.00	F
92.99 – 90.00	A−	82.99 – 80.00	B−	72.99 – 70.00	C−		

ON-LINE RESOURCES:

Updated class schedule, readings, lecture notes, and administrative information will be posted on eLC (https://uga.view.usg.edu/).

CLASS ATTENDANCE:

Class attendance will not be taken. However, students must be present to get credit for class participation and to collect the data that will be used for their assignments.

MAKE-UP ASSIGNMENT AND EXTRA CREDIT POLICIES:

Late submissions of assignments will have points deducted at the discretion of the instructor. Make-ups for exams will only be offered in cases of serious medical or personal circumstances that prevent a student from taking the exam at the regularly-scheduled time. Any student who finds him/herself in this situation should contact the instructor before the exam period, if at all possible. The decision to offer a make-up exam is at the discretion of the instructor.

No make-ups will be available for in-class, lab, or field exercises.

No extra credit is available for this course.

ACADEMIC HONESTY:

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: https://honesty.uga.edu/_resources/documents/academic_honesty_policy_2017.pdf. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Honesty is fundamental to everything we do at the University: all meaningful learning and research is predicated on academic honesty. Academic dishonesty harms and degrades your classmates and teachers, and it ultimately harms and degrades you. If you have any questions regarding what constitutes honest or dishonest behavior, the instructors will be happy to discuss these issues with you.

Suspected cases of academic dishonesty will be pursued according to the policies outlined in "A Culture of Honesty."

CELL PHONES AND OTHER PERSONAL ELECTRONIC DEVICES:

Cell phones should be silenced during lecture, lab, and field activities. Please be considerate of your fellow classmates and your instructors, and don't engage in phone conversations or texting during class.

Laptops are permitted during lectures, but their use should be restricted to appropriate class-related activities (e.g. note-taking). Laptop use in the classroom is a privilege, not a right, and this privilege may be revoked if it is abused.

SYLLABUS DISCLAIMER:

This course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Updated lecture schedules and other changes will be announced in class and posted on eLC as necessary. Information posted on eLC takes precedence over all previously announced or posted information.

STUDENTS WITH DISABILITIES:

Students with disabilities who require accommodations to participate in course activities or meet course requirements should contact Dr. Gannon.

COURSE OJECTIVES:

This course will provide students with a hands-on field study of animals living in a diversity of barrier island coastal habitats. This experiential field course will illustrate behavioral principles and provide the students with methods and techniques used in animal behavior research. Students will collect field data and gain experience on data analysis and written communication of results to both scientific and non-scientific audiences.

COURSE DESCRIPTION:

This class will explore the behavioral aspects of animal communities that drive their emergent strategies and evolutionary adaptations. Through field observations, interactive modules, and lectures, students will observe a diversity of wildlife in an array of coastal habitats on Sapelo Island, Georgia. Independent thought and creativity will be required of students for open discussions and contemplation as to *why* particular behavioral strategies may or may not be advantageous to the reproduction and survival of different animal species or taxonomic groups. As part of the class, we will conduct surveys in freshwater, tidal marsh, and forested habitats for aquatic, terrestrial, and avian wildlife communities.

Students will be in the field for the majority class and the exact schedule will vary based on the weather and wildlife activity. We will conduct a variety of field sampling methods for wildlife that include techniques for hands-off observations, such as counts and surveys, passive sampling techniques, such as frog pipes and coverboards, and live trapping for several small vertebrate species in aquatic and terrestrial habitats. There will be some lab exercises where students will conduct analyses of the field data which will constitute part of their weekly research reports. These exercises may occur as part of classroom lab time or directed as part of homework assignments.

Field exercises will occur in a diversity of habitats and conditions, **closed-toed shoes** that tie securely to your feet are required at all times in the field. We will be working in marshes around oysters which are sharp and difficult to traverse. We will be in both open and highly vegetated habitats, some of which include species of thorny plants. An old pair of sneakers is recommended. Flip-flops, sandals, Crocks, aqua socks, and bare feet are prohibited. Students should also remember to bring a rain coat, water bottle, sunscreen, sunglasses, hat and clothing that minimizes sun exposure into the field each day. Quick-dry long-sleeved shirts and pants will help protect students from biting insects without a risk of overheating. Some activities (e.g., beach seining) will require some students to get into the water, so it's also a good idea to bring a swimsuit. Prior to the class, students will be provided with a detailed itinerary and appropriate clothing. Attire will be directed for purposes of student safety and meeting these clothing guidelines will be included in the students' participation portion of grade.

Students will conduct observations both independently and as a group and will participate in longitudinal studies where they record observations in field journals. Students will be required to write a **final research report** and will develop a **communication product**, such as a video or a public interest article. Data will be collected as a group but each student will write a report independently. Your report will be structured like a peer-reviewed paper and will follow the editorial guidelines for articles published in the journal *Fishery Bulletin* (http://fishbull.noaa.gov/guidelines.pdf). Further instructions will be given on writing the final report. In the first week of the course, the students will work with the instructor to design their short study toward a habitat or wildlife group of their interest.

PREREQUISITES: BIOL 1108/1108L or BIOL 2108H/2108L

EXPECTED LEARNING OUTCOMES:

- to learn various approaches and methodologies used in field studies of animal behavior;
- to have first-hand experience with diverse organisms, many of them unique to the Georgia coast;
- to explore a range of concepts fundamental to the field of wildlife ecology and behavioral sciences;
- to learn basic statistical procedures commonly used in behavioral data analysis;
- to hone skills in written and verbal science communication.

TOPICAL OUTLINE:

1. Animal behavior sampling methods
2. Foraging behavior
3. Courtship/Mating behavior
4. Territoriality
5. Predatory behavior
6. Preening behavior
7. Intraspecific and interspecific communication
8. Ethograms
9. Learning/conditioning
10. Spacing patterns
11. Data analysis