BIOL 4005.008 & 5005.008: Behavioral Ecology
Fall 2020, 3 credits

Welcome to Behavioral Ecology! This topic investigates how organisms change what they are doing as they interact with other organisms and with their environment. We will focus on understanding the evolution of behavior, primarily with animals. You may find some of the material challenging, but I hope you will also be fascinated by what you learn.

Instructor: Dr. Elinor Lichtenberg, elichten@unt.edu
Student Hours: By appointment, online (via Zoom). Please do not hesitate to schedule a time to talk about things you don’t understand, or any concerns you have!
Communication: Check for Canvas announcements at least once per week. Contact me via the Canvas Inbox. Expect a response within 2 business days (i.e. not weekends); do not count on a quick response. If you have a time-sensitive problem (e.g., technical issue), start the subject with “URGENT”. Failure to study until the day before the exam is not a time-sensitive problem.

For all communication, including among students, I expect you to follow the Code of Student Conduct, UNT’s Online Communication Tips and the Rules of Engagement listed below to keep our interactions inclusive of and useful for everyone.

Course Structure: Asynchronous + Online meetings Tu 10-10:50. In these meeting we will answer your questions about the previous week’s material, discuss assignments, and work through practice problems and sample exam questions.
Canvas: All lecture recordings, syllabus updates, assessments, supplemental readings, and other class materials will be on Canvas. Students are responsible for regularly checking for announcements and course materials. I recommend that you set notifications to “on” in your Canvas settings. Lectures will be recorded and posted on Canvas, for you to access at your convenience. Homework will be turned in via Canvas. Weekly live discussions will be via Zoom. If you have a slow internet connection, try watching Zoom online (with your mic off and sound muted) and participating in the audio by calling in on the phone. Discussions will be recorded, and available on Canvas.

The University of North Texas provides student technical support in the use of Canvas and supported resources. The student help desk may be reached at:
Email: helpdesk@unt.edu, Phone: 940-565-2324
Walk-In Availability: 8am-9pm; Sage Hall, Room 130
Telephone Availability:
- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm
Laptop Checkout: 8am-7pm
For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328). A Canvas Student Guide is also available here: https://community.canvaslms.com/t5/Student-Guide/tkb-p/student

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Course Goals:
Upon successful completion of this course, students should:
1) Be familiar with major concepts in behavioral ecology.
2) Understand and be able to apply standard methods used to design, analyze and critique behavioral ecology experiments.
3) Understand how to apply the scientific process to behavioral ecology questions, and be able to evaluate the use of the scientific process in papers from this field.

Learning Objectives:
Students should be able to:
1) Explain how behavior links genetics, organisms and the environment.
2) Describe how humans impact behavior, and how studying behavior contributes to conserving wildlife.
3) Critically read journal articles.
4) Confidently interpret data and graphs.
5) Develop specific predictions from hypotheses about behavior, and design experiments to test those predictions.

You Will Need:
- Required journal article readings will be posted on Canvas.
- Computer or other device that enables you to use Canvas, including watching recorded lectures, taking quizzes and exams, and uploading written assignments (as documents or scans/photos).
- Computer, phone, or other device that enables you to participate in live discussions via Zoom, through Canvas. This includes having your camera on, whenever possible.
Laptops and mobile hotspot devices are available for students to checkout at Willis Library. If you have any technical difficulties with UNT information technology please contact UIT (https://it.unt.edu/helpdesk). UIT provides assistance via phone (940-565-2324), email and through live chats.

Assessment and Grading: Assignments are designed to help you confirm that you understood the material and practice what you learned. Assessments will be completed, and homework will be turned in, through Canvas. Since this course is taught remotely, there are several components to the class outside of standard lectures. You will be evaluated on them as follows.
1. In-lecture assessments (1 point per week – drop lowest two weeks): After each lecture video, you will answer several questions, via Canvas quizzes. These are designed for you to check whether you understood the material (so cheating hurts only yourself). If you select a wrong answer, you will get information why it is wrong and can choose another answer. The points for all questions associated with one week will total 1. Each quiz will be available through 11:59pm on the Sunday at the end of the week, or the last day of class (12/3) for the final week. (Lecture videos and slides will remain available all semester.)
2. Participation (1 point per week – drop lowest week): You are expected to attend and participate in each week’s live Zoom discussion session, with your video camera turned on (unless bandwidth issues prevent this). Pets, family, housemates, etc. are welcome to join; I
know that many of us will not be attending from private spaces. You are welcome to use virtual or blurred backgrounds. We will discuss assignments (including journal articles) and review course material. **There is no discussion the first week** of class (8/25).

3. **Homework**
   a. Textbook readings: You are expected to read the assigned textbook chapters. These readings reinforce lectures and provide additional examples, and thus help you better understand course material.
   b. Assignments (4 points each – lowest score dropped): Assignments must be uploaded in Canvas. Most assignments are due by 11:59pm on the Sunday at the end of the week they are assigned. There are two exceptions. The first week’s assignment has one part due 8/28 and a second part due 8/31. The final assignment is due the last day of class (12/3). Most assignments will use Turnitin for submission.
   c. Graduate student extra assignment (5 points): Students enrolled in the graduate section will complete an extra assignment based on an article they select. This is due 12/8.
   d. **Resources** to help with homework: Tips for reading articles, and a link to the Course Guide for this course (which contains information on finding articles) can be accessed through the Canvas Home page for this course.

4. **Exams** (25 points each – lowest score dropped): Exams may include information from lectures, the textbook and assigned articles. They will include short response questions and problems to solve, similar to homework. Each exam will be available from 8am to 10pm on its scheduled day (all Thursdays), so minor scheduling constraints can be accommodated within this framework. You will have one attempt and 50 minutes to complete each exam. You are allowed to use course materials when taking quizzes and exams, including the textbook and your notes. You should not discuss answers with other students before the exam deadline. **Doing so violates the Academic Integrity Policy** (see below).

<table>
<thead>
<tr>
<th>Exam #</th>
<th>Exam Date</th>
<th>Weeks covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/24</td>
<td>1-4</td>
</tr>
<tr>
<td>2</td>
<td>11/5</td>
<td>5-10</td>
</tr>
<tr>
<td>3</td>
<td>12/10</td>
<td>11-15</td>
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</tbody>
</table>

The final distribution of assessment components is as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Total points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>50</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>24</td>
</tr>
<tr>
<td>In-lecture assessments</td>
<td>13</td>
</tr>
<tr>
<td>Participation</td>
<td>13</td>
</tr>
<tr>
<td>Extra article – grad students</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100 for undergraduates, 105 for grad students</td>
</tr>
</tbody>
</table>

**Late Policy:** Grading is structured so that if you miss an assessment occasionally for whatever reason, it will not significantly affect your grade. Thus, no late work or make-up exams will be accepted. In-lecture assessments (via Canvas quizzes) and homework assignments are due at 11:59pm on Sunday at the end of the week they are assigned, unless otherwise indicated. Assessments will be unavailable after the deadline, and I will not accept late work via e-mail.

The University is committed to providing a reliable online course system to all users. In the event of any unexpected server outage or any unusual technical difficulty which prevents
Students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately document (e.g., screenshot of error message) report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

**COVID-19 Impact on Attendance:** While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or due to a related issue regarding COVID-19. It is important that you communicate with me *prior to being absent* as to what may be preventing you from coming to class so I may make a decision about accommodating your request to be excused from class.

If you are experiencing any symptoms of COVID-19 (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

**Rules of Engagement:** Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Use “I” statements to share thoughts and feelings, when speaking from personal experience. Try not to speak on behalf of groups or other individuals’ experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.
**Tentative Lecture Schedule:** Students are responsible for knowing all assignment deadlines and exam dates, as well as the material that will be covered by each exam. Topics and assignments may change at the instructor’s discretion. Exam dates will not change.

<table>
<thead>
<tr>
<th>Week (start date)</th>
<th>Topics</th>
<th>Textbook Readings</th>
<th>Assignment</th>
<th>Due date for assignment &amp; in-lecture assessments</th>
</tr>
</thead>
</table>
| 1 (8/24)          | Course overview  
What is behavior, and why and how do we study it? | Ch. 1 | Introductions | Part 1 8/28, Part 2 8/31 |
| Note that there is no live discussion during week 1. |
| 2 (8/31)          | Evolution of behavior, phylogenies | Ch. 2 | Questions activity part 1 | 9/6 |
| 3 (9/7) Labor Day | Proximate factors: hormones, neurobiology | Ch. 3 | Article 1 | 9/13 |
| 4 (9/14)          | Proximate factors: molecular genetics, development | Ch. 4 | | 9/20 |
| 5 (9/21)          | **Exam 1**  
Learning | Ch. 5 | | 9/27 |
| 6 (9/28)          | Cultural transmission | Ch. 6 | | 10/4 |
| 7 (10/5)          | Sexual selection | Ch. 7 | Article 2 | 10/11 |
| 8 (10/12)         | Mating systems | Ch. 8 | | 10/18 |
| 9 (10/19)         | Kinship | Ch. 9 | | 10/25 |
| 10 (10/26)        | Cooperation | Ch. 10 | Problem set | 11/1 |
| 11 (11/2)         | **Exam 2**  
Foraging | Ch. 11 | | 11/8 |
| 12 (11/9)         | Antipredator behavior | Ch. 12 | | 11/15 |
| 13 (11/16)        | Communication | Ch. 13 | Article 3 | 11/22 |
| 14 (11/23)        | Habitat selection, territoriality, migration | Ch. 14 | | 11/29 |
| 15 (11/30)        | Plant behavior | | Questions activity part 2 | 12/3 (note early deadline) |
| Finals week       | **Exam 3** | | Grad student extra article | 12/8 |

**ACADEMIC SUPPORT & STUDENT SERVICES**

**Student Support Services**

*Mental Health:* UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:
• **Student Health and Wellness Center** (https://studentaffairs.unt.edu/student-health-and-wellness-center)
• **Counseling and Testing Services** (https://studentaffairs.unt.edu/counseling-and-testing-services)
• **UNT Care Team** (https://studentaffairs.unt.edu/care)
• **UNT Psychiatric Services** (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
• **Individual Counseling** (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

**Chosen Names**: A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- UNT Records
- UNT ID Card
- UNT Email Address
- Legal Name

*UNT euIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

**Pronouns**: Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don’t assume someone’s name, we should also ask and not assume someone’s pronouns.

You can add your pronouns to your Canvas account so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- What are pronouns and why are they important?
- How do I use pronouns?
- How do I share my pronouns?
- How do I ask for another person’s pronouns?
- How do I correct myself or others when the wrong pronoun is used?

**Additional Student Support Services**

- **Registrar** (https://registrar.unt.edu/registration)
- **Financial Aid** (https://financialaid.unt.edu/)
- **Student Legal Services** (https://studentaffairs.unt.edu/student-legal-services)
- **Career Center** (https://studentaffairs.unt.edu/career-center)
- **Multicultural Center** (https://edo.unt.edu/multicultural-center)
- **Counseling and Testing Services** (https://studentaffairs.unt.edu/counseling-and-testing-services): provides counseling services to the UNT community, as well as testing services; such as admissions testing, computer-based testing, career testing, and other tests.
- **Pride Alliance** (https://edo.unt.edu/pridealliance)
- **UNT Food Pantry** (https://deanofstudents.unt.edu/resources/food-pantry)

**Academic Support Services**

- **Academic Resource Center** (https://clear.unt.edu/canvas/student-resources)
• **Academic Success Center** ([https://success.unt.edu/asc](https://success.unt.edu/asc)): information regarding how to be a successful student at UNT
• **Office of Disability Access**: exists to prevent discrimination based on disability and to help students reach a higher level of independence
• **UNT Learning Center**: provides a variety of services, including tutoring, to enhance the student academic experience; now has a school supply pantry
• **UNT Libraries** ([https://library.unt.edu/](https://library.unt.edu/))
• **Writing Lab** ([http://writingcenter.unt.edu/](http://writingcenter.unt.edu/)): offers free writing tutoring to all UNT students, undergraduate and graduate, including online tutoring

**UNT POLICIES**

**Acceptable Student Behavior**
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student’s conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at [deanofstudents.unt.edu/conduct](deanofstudents.unt.edu/conduct).

**Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)**
The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

**Academic Integrity Policy**
Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

**ADA Policy**
UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every
semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu.

Emergency Notification & Procedures
UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student’s records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Access to Information - Eagle Connect
Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail: eagleconnect.unt.edu/.

Student Evaluation Administration Dates
Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website at http://spot.unt.edu/ or email spot@unt.edu.

Sexual Assault Prevention
UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective
orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation
To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the Electronic Code of Federal Regulations website at http://www.ecfr.gov/. The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G). The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

University of North Texas Compliance
To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student’s responsibility to do the following:

(1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.

(2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

Student Verification
UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated
with student identity verification in distance education courses. See UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses.

Use of Student Work
A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) they create within a class and the University is not entitled to use any student work without the student’s permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student’s written permission.

Transmission and Recording of Student Images in Electronically-Delivered Courses
1. No permission is needed from a student for their image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, they must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

Class Recordings & Student Likenesses
Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.