Professor:  
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This course is in a **distance based, fully online, asynchronous format**. All lecture chapters are video recordings, and can be found on Canvas. All assignments and exams are online and will be assigned through Canvas. Asynchronous means you will work on your own pace without designated class meeting times. Exams will be held online during a designated 24 hour window. All deadlines are listed as Central Time. Though the course is self-paced, note the schedule of exams and assignments below.

A final comment about self-paced courses: it will be very easy for you (as a student) to lose track during the semester. As a result, I highly suggest that each student develop a routine and review the lectures and read the book at regular times during the semester. If you find yourself missing the social element to learning, feel free to reach out to other students or contact me on Zoom. That being said, many students have succeeded in this format and I believe (and hope) that this will help you explore and learn the wonders of evolutionary biology.

Although the class is self-paced, do not hesitate to contact me with questions during office hours or an appointment. You may also contact me in groups. I am here to help. In the past, with students’ permission, I post answers to questions I receive on Canvas, so that everyone may see concepts that have confused other students. This should help alleviate any issues with an online course without much social interaction.

**OFFICE HOURS:**  
MW 10-11am by ZOOM or by ZOOM appointment. I will have virtual meetings on ZOOM, see link below and full ZOOM information on Canvas. This link is valid until April 30, 2022. I also suggest you contact me by email indicating that you want to meet on ZOOM, even during established office hours, so that I am aware that you want to meet with me. My attention span looking at an empty screen is not infinite and I may work on other projects on my computer or get up from my desk from time to time.

Join Zoom Meeting  
[https://uttyler.zoom.us/j/92202214548?pwd=TkZ6b2V0cXJxZGg0SV1vc0I3d2FtUT09](https://uttyler.zoom.us/j/92202214548?pwd=TkZ6b2V0cXJxZGg0SV1vc0I3d2FtUT09)

Meeting ID: 922 0221 4548  
Passcode: 930680  
One tap mobile  
+13462487799,,92202214548# US (Houston)  
+12532158782,,92202214548# US (Tacoma)

**Comments about emails.** Emails sent during normal business hours (e.g., 9am to 5pm) can expect a reply that day. Emails sent in the evening or early morning (e.g., 1am) most likely will not receive a reply until the following day. Emails sent over the weekend (Friday evening until Sunday evening) or on holidays also most likely will not be answered until the next business day. Nevertheless, I periodically check my email outside of business hours and will reply, when possible, to emergencies. So, if you have an emergency, send the email so that I have record of it.

**COURSE DESCRIPTION:** This course provides an overview of the mechanisms and processes of evolutionary change at the population, organismal, cellular, and molecular levels. It also provides an overview of the history of Earth and its biota including geological time, fossils, and man.
STUDENT LEARNING OBJECTIVES: Upon completion of BIOL 3338, the student should be able to
• define biological evolution and discuss the rise of modern evolutionary biology
• apply genetics to evolutionary biology
• identify evidence for evolution
• know what conditions are required for natural selection to operate and other mechanisms of evolutionary change
• distinguish between directional, stabilizing, and disruptive forms of selection
• define adaptation, how they evolve, and understand at what level selection is operating
• differentiate among species concepts and understand the mechanistic hypotheses for speciation
• understand phylogenies

Required Texts:

https://wwnorton.com/books/9780393690118

Additional required readings from the primary literature may be announced from time to time.

Evaluation: Grades will be assigned based on the performance on four exams. Each of the four exams will be worth 25% of the final grade. The final exam will be optional and will replace the lowest regular exam grade. The final exam will be cumulative. Material for the exams will come from the lecture (videos and guest lectures) and the required text. More details may be announced in class.

Evaluation Summary:
100% exams (4 at 25% each)
Optional Final Exam (will replace your lowest exam)

Exams. All students will be provided with the same amount of time to take their exams. Exams will be held during a fixed period of at least one day (24 hours). While students may take the exam during this period, the exam will be of fixed duration once started. Exams will have two parts that will be administered separately: a multiple choice portion and a short essay portion. Each student will have at least 45 minutes to take the multiple choice portion and at least 24 hours to complete the essay portion. More information will be announced on Canvas. Pay attention to all announcements. Realize that to avoid confusion, an exam may start at 11:59pm and finish at 12:01 the following day. See policy on missed exams and assignments below. Although exams will stress the material preceding each exam, all exams should be considered comprehensive (as is all biology). Exams will cover the materials presented in lectures and assigned readings. Realize that essay questions are not ‘open ended questions’ or opinion-based. The questions I ask you will have definite, correct answers and will not involve your opinions unless I explicitly ask you for your opinions. Also realize that if you write a very long answer, but do not answer the question and/or provide factually incorrect statements, you may lose points. Do not expect to receive points for effort. Contradictory information in an answer will also result in a loss of points. Students must answer the questions clearly using complete sentences, not bullets or phrases. This is not meant to torture students, but the ability to communicate effectively and remember content across lectures are very important skills. Thus the clarity of written answer will be a factor in grading. Except for possible Extra Credit assignments associated with Darwin Day events (February 9-12, 2022), which will be announced on Canvas, I do not give extra credit.
All exams will be completed on Canvas and will be checked for plagiarism within the class and with a database of assignments and other sources from around the world. Do not cheat or plagiarize. **If you cheat or plagiarize, you will at a minimum receive a 0 on that assignment and be reported to the university authorities.** Realize that any issue with academic misconduct can severely impact, if not inhibit, your chances of obtaining a career associated with public trust (police officer, lawyer, doctor, dentist, nurse, etc.). Don’t cheat or plagiarize. Just don’t do it. Don’t be tempted to look up/copying and pasting sources while taking an exam. Just don’t. For definition and explanation of cheating or plagiarism see section on “Student Standards of Academic Conduct” toward the end of this document.

**ProctorU**
The assessments in this online course will be proctored using ProctorU. Beyond the cost of initial equipment needed (e.g. a camera for your computer), there will not be any additional cost for proctoring. You will need to create a ProctorU account and install the ProctorU extension before attempting any assessment. To create a ProctorU account, follow the ProctorU tool within Canvas. Please make sure you are using the current version of Chrome or Firefox and download the ProctorU extension available at http://bit.ly/proctoruchrome (Links to an external site.) or https://www.proctoru.com/firefox (Links to an external site.).

In order to use ProctorU, you will need the following:
- High-speed Internet connection
- Webcam (internal or external)
- Windows, Mac, or Chrome Operating System
- Up-to-date Chrome or Firefox browser and ProctorU extension installed
- Valid photo ID
- Quiet environment to take your assessment

You can visit the Test Taker Resource Page for additional information at https://bit.ly/ProctorMe (Links to an external site.)

If you have religious or other concerns about this methodology please contact the SAR office.

**Please familiarize yourself with ProctorU tool before the first exam!**

**Missed Exam and Assignment policy:** It is your responsibility to take the exam on time. Failing to take a scheduled examination will result in a score of 0 unless replaced by a make-up exam in a timely fashion. ‘Make-up’ examinations are given only in cases where there is a documented excuse beyond your reasonable control:
- Illness – you must have a physician note indicating that you were not in a physical condition to take the exam at the scheduled time. A note from a family member is insufficient.
- Death or grave illness in your immediate family.
- Significant scheduling conflicts (e.g., med-school interviews, or other university sponsored events). You must notify the instructor at least 2 weeks in advance of this absence.

The nature of the make-up exam will be decided by the instructor and may consist of a written and/or oral examination.

**Grading Issues.** In grading, I strive for fairness and consistency. **If you feel like a grading error was made on an exam, you may submit a typed appeal within a week (7 days) of when the exam was returned to you.** Your written appeal should be based on course materials and should stress the scientific validity of your original response.
Final grades in the course will be determined by a standard grading system:
- 90 – 100% = A
- 80 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- < 59% = F

Although exams will stress the material preceding each exam, all exams should be considered comprehensive (as is all biology). Exams will cover the materials presented in lectures and assigned readings.

As a general policy I will not verbally discuss individual exam questions with students, at least initially. Exams will be returned and keys will be posted online. If you are concerned about an exam grade, the best approach will be to go over the exam questions and try to understand why you scored incorrectly on each exam question. If you still do not understand, there are two options. First, the question could be poorly or incorrectly worded; if you believe this is the case, then consider filing an appeal. **You will have one week from the return of the exam to file an appeal.** Second, it is possible you do not understand the concept that the incorrect answers addressed. This will require you to read the book chapters and consult the lecture powerpoints. If this does not help, feel free to schedule an appointment and come with questions. I will be happy to address questions about topics or re-explain topics either in lecture or privately. **In summary, I am happy to discuss topics or exam questions and answers, I will not discuss grades or points in person. Grade and point issues must be addressed in written format.** I am a firm believer that learning is best obtained with a good dose of self-teaching.

**SUPPLEMENTS:** Illustrations, announcements and PowerPoint presentations will be available on Canvas. These materials are strictly for your own use, and are not to be disseminated to anyone else, under any circumstances. Lectures will be supplemented by frequent videos shown during class. These will provide new information or reaffirm the information presented in lecture. **Both lectures and supplements represent testable material.** The textbook also has an excellent website with quizzes and other study aids. [https://wwnorton.com/books/9780393690118](https://wwnorton.com/books/9780393690118). While the online supplements will not directly count toward your grade, students who avail themselves of this feature often learn more and have higher grades.

**HONOR CODE/ ACADEMIC INTEGRITY:** Students should be aware that absolute academic integrity is expected of every student in all undertakings at The University of Texas at Tyler. Failure to comply can result in strong university-imposed penalties. Plagiarism (copying the work of others without proper citation), talking during test time, having mobile electronic devices on (cell phones, PDA’s, laptops) during exams are some examples of behavior to be avoided.

**UT Tyler Honor Code**

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Be forewarned that while taking an exam, the possession of anything containing course content will be considered cheating, whether or not you actually refer to it during the exam. **TALKING during an EXAM to anyone other than the instructor or proctor will automatically be considered cheating.** It does not matter what you were talking about. This includes the use of cell phones (even if they call YOU) or any other electronic device that could be used to record test material. Violation of this policy will be considered cheating and treated accordingly. Penalties for cheating include anything from a zero on the exam or quiz during which the cheating occurred, up to an F for the course in question.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give and receive “consulting” help. However, this permission to
cooperate should never involve one student having possession of a copy of all or part of work done by someone else, in the form of digital or hard copy. If copying occurs, both the student who copied the work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action. See more below under ‘Student Standards of Academic Conduct’

EXAMS: It is your responsibility to take at the exam on time at the specified date and time. Failing to take a scheduled examination will result in a score of 0 unless replaced by a make-up exam in a timely fashion. ‘Make-up’ examinations are given only in cases where there is a documented excuse beyond your reasonable control:

- Illness – you must have a physician note indicating that you were not in a physical condition to take the exam at the scheduled time. A note from a family member is insufficient.
- Death or grave illness in your immediate family.
- Significant scheduling conflicts (e.g., med-school interviews, or other university sponsored events). You must notify the instructor at least 2 weeks in advance of this absence.

The nature of the make-up exam will be decided by the instructor and may consist of a written and/or oral examination.

Student Standards of Academic Conduct: Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

(i) “Cheating” includes, but is not limited to:
- copying from another student’s test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed “crib notes”. The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
• falsifying research data, laboratory reports, and/or other academic work offered for credit;
• taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
• misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

(ii) “Plagiarism” includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another’s work and the submission of it as one’s own academic work offered for credit.

(iii) Plagiarism also includes work that students may have submitted to another class in the current and former semesters (plagiarizing oneself is still plagiarism).

(iii) “Collusion” includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

(iv) All written work that is submitted will be subject to review by SafeAssign™, available on Blackboard.
TENTATIVE CLASS SCHEDULE
(Changes will be announced in class)

Lecture Topics (Chapters)

Introduction (1)
Evidence of Evolution (2)
Natural Selection (3,7)

Feb 4 – Exam 1
Evolutionary Genetics/Genomics (6,10)
Population Structure/Genetic Drift (8)
Evolution of Sex (16)
Evolutionary Medicine (20)

March 4 – Exam 2
Molecular Evolution Ch. 8, 5(287-304)
Phylogenetics (4,5)
Speciation (14)
Extinction (15)

April 1 (no fooling) – Exam 3
History of Life on Earth (11, 12)
Phylogenomics (10)
Evolution and Development (13)
Human Evolution (19)

April 22 – Exam 4

Final Exam TBA (April 27-30)

Important Dates:

January 17: Martin Luther King, Jr Day (No Class)
January 24: Census Date
March 28: Withdrawal Date
March 7-12: Spring Break (No Class)
April 30: End of Term