Syllabus BIOL 3338 – BIOLOGICAL EVOLUTION

Professor:
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OFFICE HOURS:  MW 10:15-11:15am by ZOOM or by ZOOM appointment. **I will not hold office hours or have meetings in my office.** I will prepare a ZOOM link and post it on Canvas. To arrange a call, send me an email or call the number above (voicemails are sent via email to me). I also suggest you contact me by email indicating that you want to meet on ZOOM, even during established office hours. I may not see that you are on it, since I do not plan on staring at an empty screen for an hour or more if nobody shows up.

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.

Course Meeting Time: Fully online, distance based course.

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

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 on fixed days. While students may take the exam during the 24 hour period of the exam day, the exam will be of fixed duration. Each student will have a maximum of 45 minutes to take the exam. 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. Some questions on the exam will be of short answer/essay format. 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 courses are very important skills. Thus the clarity of written answer will be a factor in grading. 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.

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. 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.

UNIVERSITY POLICIES

STUDENT ABSENCE FOR UNIVERSITY-SPONSORED EVENTS AND ACTIVITIES
If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

RELIGIOUS HOLY DAYS: Religious holy days sometimes conflict with class and examination schedules. The University policy is that students who miss course work due to the observance of a religious holy day must be given the opportunity to complete the work missed within a reasonable time after the absence, provided that the instructor is notified in advance. Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

DISABILITY SERVICES
In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to cstaples@uttyler.edu

STUDENTS RIGHTS AND RESPONSIBILITIES: To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html

Important Covid-19 Information for Classrooms and Laboratories
Students are required to wear face masks covering their nose and mouth, and follow social distancing guidelines, at all times in public settings (including classrooms and laboratories), as specified by Procedures for Fall 2020 Return to Normal Operations (https://www.uttyler.edu/reboot/files/ut-tyler-fall-2020-procedures-rev-07-14.pdf). The UT Tyler community of Patriots views adoption of these practices consistent with its Honor Code (https://www.uttyler.edu/center-for-ethics/) and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, or a higher than normal temperature will be excused from class and should stay at home and may join the class remotely. Students who have difficulty adhering to the Covid-19 safety policies for health reasons are also encouraged to join the class remotely. Students needing additional accommodations may contact the
Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

**Recording of Class Sessions**
Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.

**SOCIAL SECURITY AND FERPA STATEMENT:**
It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

**EMERGENCY EXITS AND EVACUATION:**
Everyone is required to exit the building when a fire alarm goes off. Follow your instructor’s directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do Not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

**UT Tyler a Tobacco-Free University**
All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kretes, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

**Campus Carry**
We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. Please be aware that many research and teaching laboratories in the Department of Biology are approved Exclusion Zones. Be alert to signage throughout the HPR and BEP buildings. More information is available at http://www.uttyler.edu/about/campus-carry/index.php

**Students Rights and Responsibilities**
To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www.uttyler.edu/wellness/rightsresponsibilities.php

**Grade Replacement/Forgiveness and Census Date Policies**
Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester’s Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.
Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used
to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement
for only three course repeats during their career at UT Tyler; graduates are eligible for two grade
replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date (30 January 2017) is the deadline for many forms and enrollment actions of which
students need to be aware. These include:
☐ Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information,
approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
☐ Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
☐ Schedule adjustments (section changes, adding a new class, dropping without a “W” grade)
☐ Being reinstated or re-enrolled in classes after being dropped for non-payment
☐ Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy
Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping
more than six courses during their entire undergraduate career. This includes courses dropped at another
2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any
course that is dropped after the census date (See Academic Calendar for the specific date).
Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to
the Enrollment Services Center and must be accompanied by documentation of the extenuating
circumstance. Please contact the Enrollment Services Center if you have any questions.

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.

UT Tyler Resources for Students:

• UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu, http://www.uttyler.edu/writingcenter/
• UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu, https://www.uttyler.edu/tutoring/
• The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
• UT Tyler Counseling Center (903.566.7254) https://www.uttyler.edu/counseling/
TENTATIVE CLASS SCHEDULE
(Changes will be announced in class)

Lecture Topics (Chapters)

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

Feb 5 – Exam 1

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

March 5 – Exam 2

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

April 2 – Exam 3

History of Life on Earth (11, 12)
Phylogenomics (10)
Evolution and Development (13)
Human Evolution (19)

April 23 – Exam 4

Final Exam TBA (April 27-30)

Important Dates:

January 18: Martin Luther King, Jr Day (No Class)
January 25: Census Date
March 29: Withdrawal Date
March 8-13: Spring Break (No Class)
May 1: End of Term