

## BSC 414.01W – Evolutionary Biology Summer 1 2025

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Course Location and Time: Web

*Course objectives:* The objective of this course is to develop a proper understanding of evolutionary biology.

### Grading

15 Quizzes	150 pts
5 exams	250 pts
Term Paper	100
Total	500 points

A >450

B 400-449

C 350-399

D 300-349

REQUIRED Textbook: **Futuyma: Evolution 5e – e-book – ISBN: 9780197619636**

### Student Learning Outcomes:

1. *Students can distinguish between natural selection and genetic drift.*
2. *Students can explain sources of variation in a population.*

### Schedule (Tentative)(June 2 –July 3)

1. An idea That Changed the World(chp 1)
2. The Tree of Life ( chp 2)
3. Natural Selection and Adaptation ( chp 3)
4. Mutation and Variation (chp 4)
5. The Genetical Theory of Natural Selection (chp 5)
6. Phenotypic Evolution
7. Genetic Drift: Evolution at Random (chp 6)
8. Evolution in Space (chp 8)
9. Species and Speciation (chp 9)
10. All About Sex (chp 12)
11. How to Be Fit
12. Cooperation and Conflict(chp 13)
13. Interactions among Species (chp 15)
14. The Evolution of Genes and Genomes (chp 10)
15. Evolution and Development(chp 11)

**This is not a self paced class.** See important dates below

3 Quizzes and 1 exam will need to be completed weekly on the D2L web site.

Important Dates(PLEASE NOTICE THAT LAST WEEK IS SHORT AND ENDS ON 3<sup>rd</sup> JULY)

June 8<sup>th</sup> at 11:59 pm. Quizzes 1,2,3 and Test 1 must be completed.

June 15<sup>th</sup> at 11:59 pm. Quizzes 4,5,6 and Test 2 must be completed.

June 22<sup>th</sup> at 11:59 pm. Quizzes 7,8,9 and Test 3 must be completed.

June 29th at 11:59 pm. Quizzes 10,11,12 and Test 4 must be completed.

July 3rd at 11:59 pm. Quizzes 13,14,15 and Test 5 must be completed.

July 3rd at 11:59 pm. Writing Assignment Due.

Each Quiz covers a single chapter and corresponds to the chapter in the book.

For example Quiz 1 is over Chapter 1 in the textbook. Each Test will cover 3 chapters. So Test 1 is over chapters 1,2 and 3. Test 2 is over chapters 4,5 and 6. You will have 2 attempts for each quiz and I will take the highest grade received. Each Test will only have one attempt. Each quiz will have 10 questions(30 minute time limit) and the tests are 50 multiple choice questions(60 minute time limit).

### Writing Assignment

A 5-7 page paper(excluding reference page) will be completed over **one** of the following topics. This is Due on July 3rd. If you would like a topic over than the ones listed, please contact me for approval by June 14th. *AI is not to be utilized in the writing of the paper.*

Topics:

- The importance of reticulate evolution in the history of life
- A survey of the hominin fossil record
- A survey of experiments/observation concerning natural selection
- Evolution of the brain in Humans
- Importance of evolution in understand modern medical issues
- The importance of convergent evolution in the history of life

### TECHNOLOGY REQUIREMENTS

#### LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

### Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

### Interaction with Instructor Statement

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Procedures/Policies

Tests will not be made up unless the absence is excused according to university policy. If the test is not made-up the student will receive no (0) points. The makeup must be completed within one week of the original test date unless there are extenuating circumstances (i.e. extended hospital stay).

## **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

## **University Specific Procedures**

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

### **TAMUC Attendance**

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

## **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

### Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

### Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

## **Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

## **Office of Student Disability Resources and Services**

Texas A&M University-Commerce

Velma K Waters Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC)



46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.