

**EVOLUTION**  
**BIOL3321 CRN 20721**  
**SPRING 2024**

**INSTRUCTOR:**

Dr. Michael Moody, B306 Biology Building, 747-5087, mlmoody@utep.edu

**COURSE INFORMATION**

**Lecture:** MW 3:00-4:20 (COBA 309)

**Office Hours** - By Appointment

**TEXTBOOK (REQUIRED):**

- Freeman, Scott, and Jon C. Herron. 2014. *Evolutionary Analysis*. 5<sup>th</sup> Edition. Pearson Prentice Hall, NJ. (offered as Digital Book through bookstore)

**COURSE OBJECTIVES:**

- Define biological evolution and understand the rise of modern evolutionary biology
- Know what conditions are required for natural selection to operate
- Understand natural selection, including the models and events that shape molecular evolution
- Apply quantitative genetics to evolutionary biology
- Define adaptations, how they evolve, and understand at what level selection is operating
- Define and understand phylogenetic theory and how to assess phylogenies
- Differentiate between species concepts and understand the mechanistic hypotheses for speciation

**GRADING:**

iClicker Quizzes (drop 2)	(15%)
iClicker In Class Polling (drop 6)	(10%)
SimBio (-10% every day late)	(15%)
<u>EXAMS 1-4</u>	<u>(60%)</u>
<b>Total for students:</b>	<b>100%</b>

**Exams will all be taken in class using the Respondus Browser. You will need a computer or tablet in class for the exams (see schedule for all exams and quizzes in this syllabus below).**

**Grades** will be assigned as: 90+% = A, 80-89% = B, 70-79% = C, 60-69% = D, <60% = F.

**POLICY ON MAKE-UP EXAMINATIONS:** No make-up exams will be given for reasons other than **the case of a *documented* emergency** or when a student is on official University business (**documentation required**). Make-up exams will be scheduled at the Instructor's convenience.

**POLICY ON ACADEMIC HONESTY:** Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. **Collusion involves collaborating with another person to commit any academically dishonest act.** Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline. **Respondus requirements for exams will be strictly upheld and if rules are not followed students will be referred to the Dean of Students.** If you have any questions regarding the university policy on scholastic dishonesty, please contact the Dean of Students.

**GUIDANCE ON ARTIFICIAL INTELLIGENCE** AI prohibited -Use of AI technologies or automated tools, particularly generative AI such as [ChatGPT](#) or [DALL-E](#), is **not allowed** for assignments in this class. Each student is expected to use critical and creative thinking skills to complete tasks and not rely on computer-generated ideas. Any direct use of AI-generated materials submitted as your own work will be treated as plagiarism and reported to the Office of Student Conduct and Conflict Resolution (OSCCR).

**PARTICIPATION POLICY:** Regular participation will be necessary for success in this class.

**POLICY OF ONLINE BEHAVIOR:** Any student who disrupts or uses inappropriate online behavior will be warned and/or referred to the Dean of Students. This includes any Chat groups formed for this course.

**ACCOMMODATIONS POLICY:** The University is committed to providing reasonable accommodations to students with documented disabilities. Students who become pregnant may also request accommodations, in accordance with state and federal laws and regulations and University policy. Accommodations that constitute undue hardship are not reasonable. **To make a request, please register with the UTEP Center for Accommodations and Support Services (CASS).** Contact CASS at 915-747-5148, email them at [cass@utep.edu](mailto:cass@utep.edu), or apply for accommodations online via the CASS portal. **You need to contact me to arrange accommodations as per CASS agreement.**

**COURSE RESOURCES:** UTEP provides a variety of student services and support. Please refer to the QR code for a listing of campus resources.



Date		Lecture Topic	Instructor - Chapter(s)
<b>WEEK 1</b>	17-Jan	<b>Wed</b>	Syllabus & Introduction to Evolution
<b>WEEK 2</b>	22-Jan	<i>Mon</i>	Genetic Variation & Evolutionary Change
	24-Jan	<b>Wed (Quiz 1)</b>	GV & EC cont'd; Hardy-Weinberg Principle
<b>WEEK 3</b>	29-Jan	<i>Mon</i>	Hardy-Weinberg Principle, Genetic Drift
	31-Jan	<b>Wed (Quiz 2)</b>	Migration, Genetic Drift
<b>WEEK 4</b>	5-Feb	<i>Mon</i>	Genetic Drift & Molecular Evolution – Non-random Mating
	7-Feb	<b>Wed</b>	<b>SIMBIO – Work Time</b>
<b>WEEK 5</b>	12-Feb	<i>Mon</i>	<b>EXAM 1</b>
	14-Feb	<b>Wed</b>	Linkage Disequilibrium & Evolution of Sex
<b>WEEK 6</b>	19-Feb	<i>Mon</i>	Natural Selection
	21-Feb	<b>Wed (Quiz 3)</b>	Natural Selection; Quantitative Traits and Selection
<b>WEEK 7</b>	26-Feb	<i>Mon</i>	Sexual selection
	28-Feb	<b>Wed (Quiz 4)</b>	Adaptation Testing
<b>WEEK 8</b>	4-March	<i>Mon</i>	<b>SIMBIO – Work Time</b>
	6-March	<b>Wed</b>	<b>EXAM 2</b>
<b>WEEK 9</b>	11-March	<i>Mon</i>	<b>SPRING BREAK - NO CLASS</b>
	13-March	<b>Wed</b>	<b>SPRING BREAK - NO CLASS</b>
<b>WEEK 10</b>	18-March	<i>Mon</i>	Evolutionary Trees & Tree thinking
	20-March	<b>Wed</b>	Evolution & Human-pathogen interaction
<b>WEEK 11</b>	25-March	<i>Mon (Quiz 5)</i>	Mechanisms of Speciation
	27-March	<b>Wed</b>	Mechanisms of Speciation
<b>WEEK 12</b>	1-April	<i>Mon (Quiz 6)</i>	Genome Evolution
	3-April	<b>Wed</b>	<b>SIMBIO – Work Time</b>
<b>WEEK 13</b>	8-April	<i>Mon</i>	<b>EXAM 3</b>
	10-April	<b>Wed</b>	The Origins of Life (online modules)
<b>WEEK 14</b>	15-April	<i>Mon</i>	The Origins of Life
	17-April	<b>Wed (Quiz 7)</b>	Evolution and the Fossil Record
<b>WEEK 15</b>	22-April	<i>Mon</i>	Evolution and the Fossil Record
	24-April	<b>Wed (Quiz 8)</b>	Human Evolution
<b>WEEK 16</b>	29-April	<i>Mon</i>	Study Day (No Lecture)
	1-May	<b>Wed</b>	<b>EXAM 4</b>

