

## Biology for Science Major 2 (BIOL 1307) - Lecture



**LAMAR INSTITUTE  
OF TECHNOLOGY**

### INSTRUCTOR CONTACT INFORMATION

Instructor: Fadhili Tuguta  
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Office Phone: 409-247-5261  
Office Location: MPC 213  
Office Hours: Monday-Thursday 10:00 AM– 3:00 PM

### CREDIT

3 Semester Credit Hours

### MODE OF INSTRUCTION

Online

### PREREQUISITE/CO-REQUISITE:

BIOL 1107 Biology for Science Majors II Laboratory

### COURSE DESCRIPTION

BIOL 1307 Biology for Science Majors II (lecture)

This lecture-based course accompanies BIOL 1107, Biology Science Majors II lab. This lecture course provides a survey of diversity and classification of life including animals, plants, protists, fungi, and evolution of plants and animals.

### COURSE OBJECTIVES

Upon completion of this course, the student will be able to

1. Describe modern evolutionary synthesis, natural selection, and speciation.
2. Explain phylogenetic relationships and classification schemes.
3. Identify the major phyla of life based on plants and animals structure, classification, evolution, and ecology significance.
4. Determine animal physiology and hemostasis as maintained by organ system.
5. Compare and contrast the structures, reproduction (sexual and asexual) life cycle with regard to their adaptive advantages.
6. Identify the relationship between major geological changes, extinctions and evolutionary trend.

### Core Objectives

1. Critical Thinking Skills: To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills: To include effective development, interpretation and expression of ideas through written, oral, and visual communication
3. Empirical & Quantitative Skills: To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusion
4. Teamwork: To include the ability to connect choices, actions, and consequences to ethical decision-making

Approved: **Initials/date**

5. Personal Responsibility: To include ability to connect choices, actions and consequences to ethical decision-making

**REQUIRED TEXTBOOK AND MATERIALS**

. Openstax ISBN-10: 1-947172-51-4

<https://openstax.org/details/books/biology-2e>

**COURSE POLICIES:**

1. You must log onto Blackboard and access this course everyday Monday -Friday.
2. Cheating of any type will not be tolerated.
3. Late assignments will not be accepted.
4. If you wish to drop this course, you must drop it administratively. If you do not drop you will receive an F for the course.
5. Internet usage- students are to use proper netiquette when participating in course email, assignment submissions and online discussions
6. I am available M-F to respond to your email. It may take up to 48hrs to respond on the weekend email

**DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

Course Schedule			
Date	Topic	READINGS	ASSIGNMENTS Due date
<b>WEEK 1</b>			
01/21	<a href="#">Course Overview</a> <a href="#">understanding evolution</a> <b>Discussion post</b> Introduction Netiquette Discussion <a href="#">Video quiz</a> <a href="#">Evolution: It's a Thing - Quiz (11:44)</a>	Chp 18	01/24 <a href="#">Video quiz</a> Discussion post
<b>WEEK 2</b>			
01/27	The Evolution of Population  Discussion 3: Evolution <a href="#">Video quiz</a>	Chp 19	01/31 <b>Quiz 1</b> <a href="#">Video quiz</a> Discussion post

	Mechanisms of Evolution (5 Fingers of Evolution) - Quiz (05:24)		
WEEK 3			
02/03	Phylogenies and the History of life Video Quiz Phylogenetic trees   Evolution   Khan Academy - Quiz (10:57) Taxonomy: Life's Filing System - Quiz (12:16)	Chp 20	02/07 Video quiz
WEEK 4			
02/10	Viruses Discussion 4: Viruses & Bacteria Video quiz Viruses - Quiz (08:06)	Chp 21	02/14 Video quiz Discussion post
WEEK 5			
02/17	Prokaryotes Video quiz Bacteria - Quiz (11:04)	Chp 22	02/21 Video quiz
WEEK 6			
02/24	Protists Discussion 5: Protists & Fungi Video quiz Protists - Quiz (05:07) Parasites: Protozoa (classification, structure, life cycle) - Quiz (07:23)	Chp 23	02/28 Video quiz Discussion post Exam I
WEEK 7			

03/03	Fungi Video quiz Fungi: Death Becomes Them - Quiz (11:52) 10 Fantastic Fungi Superpowers - Quiz (09:47)	Chp 24	03/07 Quiz II Video quiz
	<b>Spring Break</b>		
WEEK 8			
03/17	Seedless plants  <b>Individual project</b> Discussion 6: Plants Discussion 9: Gallery Walk	Chp 25	03/21  Discussion post <b>Individual project</b>
WEEK 9			
03/24	Seed plants Video quiz <b>Plants - Quiz (07:47)</b>	Chp 26	03/28 Video quiz
WEEK 10			
03/31	Animal Diversity & Invertebrates Discussion 7: Animals Video quiz Animals - Quiz (08:08) Simple Animals: Sponges, Jellies, & Octopuses - Quiz (11:31)	Chap 27 & Chp 28	04/04 Video quiz Discussion post <b>Exam II</b>
WEEK 11			
04/07	Vertebrates Video quiz Complex Animals: Annelids & Arthropods - Quiz (13:15) Chordates - Quiz (12:09)	Chp 29	04/11 Quiz III Video quiz

	Animal Development: We're Just Tubes - Quiz (11:32) Introduction to Animal Systems - Quiz (25:17)		
WEEK 12			
04/14	Ecology and the Biosphere Discussion 8: Ecology Video quiz Introduction to Ecology - Quiz (04:47)	Chp 44	04/18 Video quiz Discussion post II
WEEK 13			
04/21	Population and Community Ecology Video quiz Population Ecology - Quiz (12:10) Community Ecology: Feel the Love - Quiz (11:30) Community Ecology II: Predators - Quiz (10:23)	Chp 45	04/25 Video quiz
WEEK 14			
04/28	Ecosystem Video quiz <b>The Hydrologic and Carbon Cycles: Always Recycle! - Quiz (10:04)</b> <b>Symbiosis in The Sea - Quiz (10:17)</b> <b>Nitrogen &amp; Phosphorus Cycles: Always Recycle! - Quiz (09:22)</b> <b>Human Impacts on the Environment Quiz (10:38)</b> <b>Pollution - Quiz (09:22)</b> <b>Conservation and Restoration Ecology - Quiz (10:13)</b>	Chp 46	05/02 Video quiz Exam III 05/02
WEEK 15			

05/05	Group Presentations begin  Discussion 10: Gallery Walk - Biomes Project		<b>05/07</b> <b>Quiz IV</b> <b>Discussion</b> <b>post</b> <b>Group</b> <b>Presentations</b>
Week 16  05/12	<b>FINAL EXAM</b>		<b>05/12</b>

### **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

Discussion Participation	10%
Video Quizzes	20%
Chapter Quizzes	20%
Exams -	30%
Projects	20%

### **Course Requirements**

1. Student will participate in discussion boards for each of the chapters.
2. Exams are required with 3 attempts given per exam. Final score will be an average of all attempts.
3. Student will complete an individual assignment and a group assignment.
4. Five quizzes will be given. Each quiz can be taken twice with the highest attempt being used for the final score

### **GRADE SCALE**

- 89.5-100 A
- 79.5-89.4 B
- 69.5-79.4 C
- 59.5-69.4 D
- 0 - 59.4 F

### **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

### **AI STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT

desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor.

Students are reminded that all submitted work must be their own, original work unless otherwise specified. Students should contact their instructor with any questions as to acceptable use of AI / ChatGPT in their courses.

### **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

### **STUDENT CODE OF CONDUCT STATEMENT**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.