BIOL 1107 Syllabus & Addendum

Biology for Science Majors Lab II
Spring Semester 2024

Credit: 1 semester credit hour1 (2-hour lab) can be taken face to face or fully online.

PREREQUISITE:
Passed the Reading/Writing Sections of COMPASS or any other accepted test. Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment: http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx

INSTRUCTOR CONTACT INFORMATION:

Instructor	Yunyan Anna Cheng
STARFISH	Found on Blackboard
Email	ycheng@lit.edu
Office Phone	(409) 241-7296
Office Location	MPC 241
Office Hours	Monday: 12pm-4pm Wednesday: 12pm-4pm Thursday: 1pm-4pm Friday: 10am-2:30pm face to face, by phone, or online. Please feel free to contact me outside office hours by phone, email, or raising the "I Need Help" flag in Starfish.

COURSE DESCRIPTION
This course is the second of two courses designed to help understand the scientific study of life at the organismal, population, and community levels. It covers the diversity and classification of life including viruses, bacteria, protists, plants, fungi, and animals, with special emphasis on structure, function, evolution, and ecology.

TEXTBOOK AND MATERIALS:
REQUIRED Textbook - OpenStax Biology 2e – https://openstax.org/details/books/biology-2e?Book%20details

Register at McGraw Hill Connect to access to Virtual Labs. Here is a tutorial on how to register: https://www.mheducation.com/highered/support/connect/first-day-of-class/ia-blackboard-ultra-ltia.html

COURSE OBJECTIVES:

1. Apply appropriate safety and ethical standards.
2. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, and virtual simulations.
3. Work collaboratively to perform experiments.
4. Demonstrate the steps involved in the scientific method.
5. Communicate results of scientific investigations, analyze data and formulate conclusions.
6. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.
7. To define biology, comprehend and apply the scientific process.
8. To describe and understand the concept of evolution as genetic change in a population over time. To show how evolution is a unifying theme in biology.
9. To describe the concept of phylogeny and apply it to prokaryotes, protists, plants, fungi, and animals.
10. To describe and understand vertebrate anatomy and physiology.
11. To describe and understand the ecology of population, communities, ecosystems, and the biosphere. Understand the role of humans in the ecology of the biosphere.
12. To understand the significance of biology to you and your life and apply the knowledge acquired to making educated decisions as a member of society.
13. To apply new learning and studying skills to your life

GRADING SCALE:

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

COURSE EVALUATION:

Final grades will be calculated according to the following criteria:

Assignments	25%
Quizzes	25%
Exams (Mid-Term and Final)	30%
Group Project	20%
Total	100%

COURSE POLICIES:

1. You must log into Blackboard and access this course a minimum of **3 times per week.**
2. Cheating of any type will not be tolerated.
3. **Late submissions of assignments/quizzes/exams will be accepted with a deduction of 10% for a penalty.** Students will receive a zero for assignments not completed.
4. A Midterm and Final exams are required with 2 attempts given per exam. The final score of the exam will be calculated by averaging all attempts.
5. 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.
6. Internet usage- students are to use proper netiquette when participating in course email, assignment submissions and online discussions.
   Arizona State University = https://asuonline.asu.edu/newsroom/online-learning-tips/netiquette-online-students/
   Seth Ross = http://www.albion.com/netiquette/corerules.html
   The University of Texas at El Paso = https://www.utep.edu/extendeduniversity/utepconnect/blog/october-2017/10-rules-of-netiquette-for-students.html

ADDITIONAL COURSE POLICIES

Last day to drop with refund: *January 31, 2024*.

Last day to drop **without academic penalty**: *February 16, 2024*

Last day to drop **with academic penalty**: *April 2, 2024*

No exceptions to these dates.

It is the student's responsibility to make sure you are officially enrolled or dropped from this course. If at any point, you decide to drop the class, it is your responsibility to officially drop (i.e., using proper administrative offices/ paperwork). Any student who stops attending class and does not officially drop the course will be given an "F" as the semester grade.

TECHNICAL REQUIREMENTS:

1. The latest technical requirements including hardware compatible browsers, operating systems, software, JAVA, etc. can be found online at: https://tinyurl.com/y9jurjh4
2. A functional broad band Internet connection, such as DSL, cable, or Wi-Fi is necessary to maximize the use of the online technology and resources.

POLICIES:

Student Policy and Procedures for General Academics

Details explaining the expectations for all Lamar Institute of Technology students can be found at this link https://www.lit.edu/information/policies-and-procedures

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations department https://www.lit.edu/student-success/special-populations.

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 https://www.lit.edu/student-success or obtained in print upon request at the Student Services Office. 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.

STARFISH – QR CODE

Tentative Weekly Checklist

Week:	To Do:	Due Dates
Week 1 **Jan 16th – 19th** Introduction	• Syllabus Quiz • Discussion: Introduction • Virtual Labs Tutorial • Lab Safety: Handwashing • Personal Safety • Quiz: Lab Safety • Sign up & start working on Group Project: Scavenger Hunt due 04.12.24	01.21.24
Week 2 **Jan 22nd – 26th** Evolution (Ch 18-20)	• Evidence of Evolution – Fossils & Comparative Anatomy • Evidence of Evolution - Molecular Evidence • Natural Selection – Antibiotic Resistance • Natural Selection in Insects • Quiz: Evolution • Work on Group Project: Scavenger Hunt due 04.12.24	01.28.24
Week 3 **Jan 29th – Feb 2nd** `Bacteria & Viruses (Ch 21-22)	• Diversity of Microorganisms • Bacterial Unknown #1 • Work on Group Project: Scavenger Hunt due 04.12.24	02.04.24
Week 4 **Feb 5th – 9th** `Bacteria & Viruses (Ch 21-22)	☐ Bacterial Unknown #5 • Bacterial Unknown #10 • Quiz: Bacteria & Viruses ☐ Work on Group Project: Scavenger Hunt due 04.12.24	02.11.24
Week 5 **Feb 12th – 16th** ` Protists & Fungi (Ch 23-24)	☐ Microscopy: Euglena ☐ Work on Group Project: Scavenger Hunt due 04.12.24	02.18.24
Week 6 **Feb 19th – 23rd** ` Protists & Fungi (Ch 23-24)	☐ Microscopy: Pond Water ☐ Quiz: Protists & Fungi ☐ Work on Group Project: Scavenger Hunt due 04.12.24	02.25.24
Week 7 **Feb 26th – Mar 1st** Midterm Exam	☐ **MIDTERM EXAM** covers Chapters 18 – 24 opens 03.01.24 and due 03.02.24 ☐ Work on Group Project: Scavenger Hunt due 04.12.24	03.02.24

Week 8 **Mar 4th – 8th** `Plant Structure & Function (Ch 25-26, Ch 30-32)	☐ Dissection Tutorial for Animals & Plants ☐ Microscopy: Plant Cells ☐ Gymnosperms ☐ Angiosperm Reproduction ☐ Work on Group Project: Scavenger Hunt due 04.12.24	03.10.24
Week 9 **Mar 11th – 15th** **Spring Break**	☐ Sleep, rest, relax ☐ Enjoy time with family and friends ☐ Netflix, etc. ☐ Exercise ☐ Read a good book	
Week 10 **Mar 18th – 22nd** `Plant Structure & Function (Ch 25 & 26, Ch 30-32)	☐ Bloom Color & pH ☐ Gravitropism & Phototropism ☐ Transpiration ☐ Transgenic Organisms – Bt Corn ☐ Quiz: Plants ☐ Work on Group Project: Scavenger Hunt due 04.12.24	03.24.24
Week 11 Good Friday Holiday Mar 29th **Mar 25th – 28th** `Animal Structure & Function (Ch 27-29, Ch 33-43)	☐ Invertebrate Dissection – Earthworm ☐ Invertebrate Dissection – Crayfish ☐ Invertebrate Dissection – Mussel ☐ Invertebrate Dissection – Sea Star ☐ Work on Group Project: Scavenger Hunt due 04.12.24	03.31.24
Week 12 **Apr 1st – 5th** `Animal Structure & Function (Chp 27-29, Ch 33-43)	☐ Vertebrate Dissection – Perch ☐ Vertebrate Dissection – Frog ☐ Vertebrate Dissection – Fetal Pig 1 ☐ Vertebrate Dissection – Fetal Pig 2 ☐ Quiz: Animals ☐ Work on Group Project: Scavenger Hunt due 04.12.24	04.07.24
Week 13 **Apr 8th – 12th** Ecology (Ch 44-47)	☐ Population Biology – Growth and Competition ☐ Biological Sampling ☐ DUE: Group Project: Scavenger Hunt 04.12.24	04.14.24
Week 14 **Apr 15th – 19th** Ecology (Ch 44-47)	☐ Comparing Ecosystems	04.21.24

Week 15 **Apr 22nd – 26th**	☐ Quiz: Ecology ☐ Review for Final Exams ☐ Make up missing assignments	04.28.24
Week 16 **Apr 29th – May 3rd**	☐ **FINAL EXAM** (Chapters 25 – 47) opens 05.03.24 and due 05.04.24. You made it!! Congratulations ☺	05.04.24