

# **BIOL 1307/1107 – Summer I 2022**

## **Principles of Biology II Lecture and Lab**



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### **Instructor: Carla Ebeling**

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Office: Cavness Science Building 002A

**Office Hours: M-F 9:30-10:00 AM and other times by appointment. In-person office hours may be moved to outdoor spaces (weather permitting) or to a virtual meeting. Look for Blackboard and email announcements.**

### **Course Information**

#### **Class Meeting Dates and Times**

**2021 Summer I Semester: Monday 6 June - Friday 8 July 2022**

1307.010 MTWRF 10:00-11:50 AM Cavness 023

1107.01z TWR 1:00-3:50 PM Science III 109

#### **Course Description**

An introduction to the unifying principles of biology with emphasis on biological diversity, evolution, and ecology. Recommended for students majoring in biological sciences or related disciplines. Not intended for non-majors.

#### **Prerequisite and Co-requisite Courses**

Students must register for Biology 1307 lecture and 1107 laboratory concurrently.

#### **Prerequisite Skills**

Accessing Internet websites, using ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations.

#### **Student Learning Outcomes**

This course introduces the integration between structure and function of biological organization. You will be asked to use processes of science to apply principles of evolution, genetics, diversity, and ecology to living systems. Observation, experimentation, and investigation are emphasized. Biology 1307/1107 requires a

conceptual understanding of the material rather than the simple memorization and regurgitation of facts. This course will challenge you to analyze and apply information, solve problems, and make connections different from the context in which they were learned. These are critical skills in biology. More detailed learning objectives are provided on the Blackboard course page.

## Course Delivery

This is a face-to-face course with online components that students are expected to access in [Blackboard](#).<sup>1</sup> **Exams will be taken in-person during a lecture period.**

## Required Texts and Materials

McGraw-Hill CONNECT™ access through the Textbook: Brooker, R.J., E.P. Widmaier, L.E. Graham, and P.D. Stiling. 2020. Biology. 5th Edition. McGraw-Hill: NY. with CONNECT™

- Option 1: CONNECT™– with eBook ISBN: 9781266054709
- Option 2: CONNECT™– with Loose leaf Book ISBN: 9781265727499

## Technology Requirements

To successfully complete this course, students need:

- ASU email account and access to [Blackboard](#) course site
- Computer with reliable internet access. Certain assignments require a computer with a mouse or touchpad. Certain assignments are not compatible with Chromebooks and mobile devices.
- Digital camera/scanner app. Must have the ability to take a photo/scan of written work and submit PDF electronic copy. (There are many free options!)
- Microsoft Office 365. You have free access to this software as an ASU student. You must use the downloaded, not the web, version of this software. You are expected to complete assignments in both Word and Excel. Instructions for how to find and install this software will be provided in the Lab Blackboard
- Gradescope. Account provided through Angelo State login credentials

## Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

**Written communication via email:** All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

**Virtual communication:** Office hours and/or advising may be done with the assistance of the telephone, Collaborate, etc.

## Grading

### Evaluation and Grades

The student learning outcomes will be assessed by exams, tutorials, lecture activities, and the laboratory. Even though BIOL 1307 and 1107 are different courses, you receive one grade for the combined grades for each course (see table below). Your course grade in 1307 will be the letter grade reported for both 1307 and 1107 on your transcript.

Course grades will be determined as indicated in the table below.

<b>Assessment</b>	<b>Points available</b>
Lecture Activities	200
EXAM #1	100
Exam #2	100
Exam #3	100
Exam #4 (Final Exam)*	200
Laboratory**	300
<b>TOTAL COURSE POINTS</b>	<b>1000</b>

\*The Comprehensive Final Exam (percentage grade) can replace a lower grade on one of the first three semester lecture exams.

\*Everyone MUST take the final exam. You WILL NOT pass this course if you miss the final exam.

**\*\*You must earn a passing grade in the lab to pass the course!**

### Grading System

Course grades will depend on completing course requirements and meeting the student learning outcomes.

This course uses the following grading scale (Grades are not rounded up):

- A = 90.00-100 points
- B = 80.00-89.99 points
- C = 70.00-79.99 points
- D = 60.00-69.99 points
- F = 0-59.99 points

## Assignment and Activity Descriptions

### Assignment and Activity Descriptions

Knowledge of Student Learning Outcomes will be assessed as multiple choice, matching, true/false questions on examinations. **Exams will be taken in-person during a lecture period.** Activities will be a mix of various assignment formats including; in-class questions, CONNECT assignments, Blackboard quizzes, worksheets, and other assessment formats. There will be no makeup activity if you miss a deadline.

### Examinations

You will only be allowed to “make-up” one exam during the semester by substituting it with an adjusted percentage from your final exam score. If you miss more than one exam, for any reason, you will not pass this course.

\*Everyone MUST take the final exam. You WILL NOT pass this course if you miss the final exam.

All exams are comprehensive. For example, this means that Exam 3 will cover all material from exam 1, exam 2, as well as new material covered since those exams were given. \*The Comprehensive Final Exam (percentage grade) can also replace a lower grade on one of the first three semester lecture exams.

Exam questions typically require interpretation of data and application of concepts rather than rote memory. While emphasis will be placed on material specifically discussed in lectures, exams also include questions covered in other assigned materials, readings and lab. Exam questions will be all objective questions (multiple choice, matching, true/false) and will be given in-person during lecture.

Make-up exams or exam extensions will be given only in extreme emergency situations. Opportunity to take a make-up exam is based on University policy and instructor discretion. Arrangements for excused make-up exams or time extensions should be made prior to the scheduled date of the exam, unless it is a health emergency, in which case you should contact the instructor as soon as possible.

### Laboratory Grades

Success in the laboratory involves communication and teamwork in designing and conducting experiments, performing pre-lab and lab activities and report writing. In addition, you will conduct activities designed to develop and improve critical thinking and problem-solving skills related to the topics discussed in lectures. You must earn a

minimum of 60% lab score (180 of 300 points) to pass the course. **\*\*You WILL NOT pass the course if you fail the lab!!**

## General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)<sup>2</sup>
- [Angelo State University Catalog](#)<sup>3</sup>

### Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#)<sup>4</sup> (Page 97).

### Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at [ADA@angelo.edu](mailto:ADA@angelo.edu). For more information about the application process and requirements, visit the [Student Disability Services website](#).<sup>5</sup> The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs

325-942-2047

[dallas.swafford@angelo.edu](mailto:dallas.swafford@angelo.edu)

Houston Harte University Center, Room 112

**IMPORTANT:** I am happy to make accommodations for you based on the recommendations from the Student Life Office. Please make an appointment and meet with me during the first week of class so that we have sufficient time to plan for it. One to two days prior to the exam/quiz is not acceptable. Failure to contact me in advance or adequately plan may result in a less than ideal situation.

### **Incomplete Grade Policy**

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)<sup>6</sup> for more information.

### **Plagiarism**

Plagiarism is a serious topic covered in ASU's [Academic Integrity Statement](#)<sup>7</sup> in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).<sup>8</sup>

### **Student Absence for Observance of Religious Holy Days**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 [Student Absence for Observance of Religious Holy Day](#)<sup>9</sup> for more information.

### **Title IX at Angelo State University**

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which

includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)<sup>10</sup>

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: [michelle.miller@angelo.edu](mailto:michelle.miller@angelo.edu)

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).<sup>11</sup>

## **Information About COVID-19**

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)<sup>12</sup> web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

## **Modifications to the Syllabus**

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances.

# Course Schedule

Tentative schedule of dates, topics, and exams. Order and dates are subject to change.

Date	Topic or Module
6-10 June	Unit 1
13 June	EXAM #1
14-20 June	Unit 2
21 June	EXAM #2
22-28 June	Unit 3
29 June	EXAM #3
30 June-7 July	Unit 4
4 July	Holiday
8 July	EXAM #4 (FINAL)

## Unit 1-Scientific Study of Life

- Scientific Thinking
- Origins of Life
- What is a species?
- Biological classification systems
- Lab #1: Intro to Lab and Scientific Method
- Lab #2: Surface Area to Volume Ratio
- Lab #3: Classification
- EXAM #1

## Unit 2-Diversity of Life

- Diversity of Life – Eukaryotes
- Diversity of Life – Prokaryotes
- Lab #4: Size, measurements, and the scale of life
- Lab #5 Microbes and Microscopes
- Lab #6: Cell Diversity
- EXAM #2

## Unit 3-Mechanisms of Change

- Mitosis and Meiosis Review
- Intro to Evolution
- Natural Selection
- Evolution and Population Genetics
- Lab #7 & #8: Processes of Genetic Change
- Lab #9: Hardy-Weinberg Equations
- Lab #10: Results of Population Genetics Investigation



- EXAM #3

#### Unit 4-Ecology

- Ecology and Animal Behavior
- Population Ecology
- Population Growth
- Species Interactions
- Communities and Ecosystems
- Lab #11: Measuring Species Diversity
- Lab #12-13: Population Growth
- Lab #14: Succession
- Lab #14: Lab Practical
- EXAM #4 (Comprehensive Final Exam)

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<sup>1</sup> <https://blackboard.angelo.edu/>

<sup>2</sup> <https://www.angelo.edu/current-students/student-handbook/>

<sup>3</sup> <https://www.angelo.edu/academics/catalog/>

<sup>4</sup> <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97>

<sup>5</sup> <https://www.angelo.edu/current-students/disability-services/>

<sup>6</sup> <https://angelo.policystat.com/policy/10659448/latest/>

<sup>7</sup> <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97>

<sup>8</sup> [https://www.angelo.edu/current-students/writing-center/academic\\_honesty.php](https://www.angelo.edu/current-students/writing-center/academic_honesty.php)

<sup>9</sup> <https://angelo.policystat.com/policy/10659368/latest/>

<sup>10</sup> <https://www.angelo.edu/incident-form>

<sup>11</sup> <https://www.angelo.edu/title-ix>

<sup>12</sup> <https://www.angelo.edu/covid-19/>