BIOL 1306-Principles of Biology I-Fall 2019
BIOL 1106-Principles of Biology I Lab-Fall 2019
Instructor: Mrs. Kaleigh Walker
Email: kaleigh.walker@masonisd.net Phone: 325-347-1122 ext 265

Learning Objectives and Nature of the Course:

An introduction to the unifying principles of biology with emphasis on biological chemistry, energetics and homeostasis, cell structure and function, gene expression, and patterns of inheritance. Laboratory is designed to reinforce lecture topics and develop analytical skills essential to the practice of biology. Recommended as a second semester course of a two-course sequence for students majoring in biological sciences or related disciplines. Not intended for non-majors. ***It is not recommended for non-majors to fulfill a general education requirement for a laboratory course.***

Course Materials:

- Lecture (required): Urry, Cain, Wasserman, Minorsky & Reece. (2017). *Campbell Biology in Focus.* (2nd AP ed.).
- MasteringBiology Online and Online Textbook Access
- Composition Notebook: 1 for lecture activities
- Spiral Notebook, 5 subject, college ruled - notes
- 1" Binder
- Paper towels
- Pens/pencils/highlighters
- Index cards (optional for studying)

Course Idea Objectives:

- gain factual knowledge (terminology, classifications, methods, trends)
- learn fundamental principles and theories
- learn to apply course material (to improve thinking, problem solving, and decisions)
- acquire skills in working with others as a member of a team

A successful student in Principles of Biology should be able to achieve the following course and state core related learning outcomes:

- describe, explain, and predict natural phenomena using the scientific method. CT1, EQS1, EQS2 - Assessment =in class activities, lecture exams, embedded test questions, lab quizzes, and lab activities/reports
- design an experiment and complete a written description of their design, collaboratively conduct the experiment and analyze data generated to answer some component of a given causal question and defend the reasoning for conclusions drawn in the form of a laboratory report. CS1 - Assessment = in class activities, lab quizzes, and lab activities/reports
- collect and analyze data to evaluate relevant biological/ecological scenarios/problems (i.e. apply information you have learned). EQS1 - Assessment = In class activities, lecture exams, embedded test questions, lab quizzes, and lab activities/reports

- Work effectively with others to support and accomplish a shared goal = CS1, TW2 - Assessment = in class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports
- connect what she/he is learning to her/his own field (i.e. to make biology relevant to your own academic endeavors). Assessment = in class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports

For state and accreditation purposes this course will assess your ability to:

- CT1 - Gather, analyze, evaluate, and synthesize information relevant to a question or issue
- CS2 - Develop, interpret, and express ideas through effective written communication
- EQS1 - Manipulate and analyze numerical data and arrive at an informed conclusion
- EQS2 - Manipulate and analyze observable facts and arrive at an informed conclusion
- TW2 - Work effectively with others to support and accomplish a shared goal

To achieve these course objectives and help maximize your learning, it is vital that you attend class, come prepared, and study the material every day (see student responsibilities.)

Methods of Assessing Objectives (what you need to study): READ ME!!

The student learning outcomes will be assessed by exams, lecture activities, other out of class assignments and the laboratory. The learning objectives will be posted on the lecture presentations and on Google Classroom. You should use the objectives along with the notes and activities/experiments from lecture AND lab to help you study.

Grading:

Component	**Maximum Percents**	**Grading Scale**
Classwork, Quizzes, Homework	25%	A = 90-100%
Exams, Labs, Projects	60%	B = 80-89%
		C = 70-79%
Final Exam	15% of Semester Grade	D = 60-69%
		F = 60%

Exams: 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 can also include questions covered in other assigned materials, readings and lab. Please refer to the objectives displayed in lecture to help you study. Questions can be any of the following types: objective questions (multiple choice), fill in the blank, matching, short answer, essay, and application based problem sets. The final exam is cumulative and made up of questions similar to the types used on the course exams. **NO make up exams will be given.** If you are gone for academic reasons or excused illness, you may take an exam the day before or the day after you return to school. It is YOUR responsibility to schedule the exam. Try to do this via email or tutorials, not during class. Everyone must take the final. If you do not take the final, you will not pass this course.Exams will be corrected FOR A SEPARATE GRADE and you keep your original exam grade. This is a learning tool for you to practice analyzing performance and continual review of concepts. Corrections are due one week after the exam is returned.

Please Note: I do not curve exams or final grades nor are they negotiable. All students will be treated equally and fairly, and all grades will be calculated in the same way, regardless of extenuating circumstances or any reason not related to your actual performance in the course. However much I may sympathize with your personal circumstances, I never consider them to be a basis for grade assignments. The classwork/homework/quizzes serve as an extremely generous, built-in curve. I strongly encourage you to take advantage of the activity points when they become available because once assigned they cannot be made up. Quizzes can include information from previous homework, labs, readings, or lectures and help me determine how students are progressing. **Homework is due at the beginning of class and MasteringA&P assignments are to be completed by the date due by 11:59pm.** Therefore you should always attend class, keep up with your work, and strive to do your best, so that you may earn the grade you want. It is your responsibility to keep up with your grade. LATE WORK: 15% off for 1 day late and detention. It is up to my discretion if I accept it at all after that. You will be put on the tutorial list for missing/late work.

Lecture: A typical class meeting will combine mini-lectures, discussions, group activities, multimedia presentations, and other demonstrations and activities to give you an opportunity to learn biological concepts in as active a manner as possible. Each segment of the course is structured around one or more conceptual units that can be interpreted or solved by applying selected biological concepts. As a member of the class you are also invited to:

- Ask questions, no matter how naive they seem to you. I will do my best to offer you a satisfactory answer. The only stupid question is one that isn't asked.
- Ask for help and/or clarification. Don't suffer in silence. I can't help you learn if I don't know you're confused or if my instructions are unclear.
- Use your group members as study partners! Review exam review questions or notes together. Group learning can be powerful and is often beneficial in a course like biology.

Laboratory: This portion of the course offers you the opportunity to explore and apply concepts to answer the research questions. Success in the laboratory involves 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.

<u>Student Responsibilities:</u>

Attendance: Missed lecture and/or lab activities cannot be made up, however they may be posted online/shared if you have an excused/extracurricular absence. Please inform me ahead of time if you will need to be absent for any reason so that I can assign alternative lab investigations/assessments. **What do you do if you miss a lecture activity or homework assignment?** Please keep up with the online tools available if a class is missed (i.e. Google Classroom/Email). If an assignment is mentioned/completed in class, and you are not present, it is still due on the date initially assigned. Absence is not an excuse for late work. No last minute offers of extra-credit are made in this course. This course is built with "extra credit" opportunities through homework, activities, and labs. Always attend class and strive to do your best, so that YOU may EARN the grade you want. It is your responsibility to keep up with your progress. Don't worry, I will help you, if you just ask for clarification!

Class Preparation, Google Classroom, and Email: Much of your learning about biology must take place outside of the formal class meetings. You should be a frequent visitor to the course Google Classroom site. All of the material you need to prepare for class is available from the site:

reading assignments for each unit, lecture presentations, homework assignments, in-class activity handouts, helpful handouts (for some concepts), and links to outside review materials (for some concepts). Since class announcements will be routinely distributed via email and Classroom, you will need to regularly check Gmail account and our course site (daily). Be sure to check your ASU email daily also.

Academic Honesty and the ASU Honor Code: Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code and the ASU policies on academic dishonesty, which is contained in both print and web versions of the Student Handbook. The penalty for ANY act of dishonesty in this class, including any form of cheating or plagiarism: 1) is a grade of ZERO on the assignment and, 2) disciplinary action as warranted in accordance with university guidelines. Please do NOT jeopardize your career; it's not worth it.

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Other Reminders

ASSIGNMENTS:
All formal written assignments or projects must be typed, 12 point font, Times New Roman, double-spaced, 1 inch margins with your name, course, period, and date at the top left corner with a centered title.

LAB RULES & EXPECTATIONS:
My expectations of you are high! That is because ASU/MHS/I expect excellence and know you can achieve it. Be respectful, have positive attitudes, be punctual, follow dress code, no sleeping in class, no cell phones on, be responsible, keep all work, come to class prepared, and use technology appropriately. Everyone with a device will need to enroll in GoGuardian. You receive 1 free tardy and 1 free homework pass each semester and 1 restroom pass each six weeks (bonus if you don't use them)!

BIO 1306/1106 Fall 2019 Tentative Schedule

Week/Date (approx.)	Unit Concepts
Aug 20	Introduction: Evolution & Foundations of Biology Science and Evolution: Scientific Method, Def. of Science, Lab Safety
Aug 26	Introduction: Evolution & Foundations of Biology Science and Evolution: Scientific Method, Def. of Science, Lab Safety
Sept 3	Chemical Context of Life/Carbon & The Molecular Diversity of Life
Sept 9	A Tour of The Cell/Membrane Transport
Sept 16	A Tour of The Cell/Membrane Transport
Sept 23	Homeostasis, Signaling, Muscle Contraction
Sept 30	Homeostasis, Signaling, Muscle Contraction
Oct 7	Metabolism, Respiration, Photosynthesis
Oct 14	Metabolism, Respiration, Photosynthesis
Oct 21	Cell Signaling and Plant Responses
Oct 28	Cell Signaling and Plant Responses
Nov 4	Cell Cycle: Mitosis, Meiosis, Animal Reproduction
Nov 11	Cell Cycle: Mitosis, Meiosis, Animal Reproduction
Nov 18	(THANKSGIVING BREAK)
Nov 25	Mendel, The Gene Idea, and Inheritance
Dec 2	Mendel, The Gene Idea, and Inheritance
Dec 9	FINAL EXAMS WEEK

BIOL 1307-Principles of Biology II-Spring 2020
BIOL 1107-Principles of Biology II Lab - Spring 2020

Instructor: Mrs. Kaleigh Walker
Email: kaleigh.walker@masonisd.net Phone: 325-347-1122 ext 265

Learning Objectives and Nature of the Course: *An introduction to the unifying principles of biology with emphasis on biological diversity, evolution, and ecology. Laboratory is designed to reinforce lecture topics and develop analytical skills essential to the practice of biology. Recommended as a first semester course of a two-course sequence for students majoring in biological sciences or related disciplines. Not intended for non-majors.* ***It is not recommended for non-majors to fulfill a general education requirement for a laboratory course.***

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BIOL 1307/BIOL 1107 Spring 2020 Tentative Schedule

Week/Date	Unit Concepts
Jan	Introduction: Evolution & Foundations of Biology Origins and the History of Life
Jan	Introduction: Evolution & Foundations of Biology Evolution of Populations and Phylogeny
Jan	Introduction: Evolution & Foundations of Biology Evolution of Populations and Phylogeny
Feb	Classification and Diversification of Species
Feb	Classification and Diversification of Species
Feb	Classification and Diversification of Species
Feb	Classification and Diversification of Species
Mar	Animal Behavior
Mar	SPRING BREAK
Mar	Animal Behavior
Mar	Population Ecology
Apr	Population Ecology
Apr	Species Interactions
Apr	Species Interactions
Apr	Ecosystems and Energy
May	Ecosystems and Energy
May	FINAL EXAMS WEEK

KEEP THIS DOCUMENT IN THE BINDER YOU BRING TO CLASS EVERY DAY. RETURN THE SIGNED LAST PAGE BEFORE THE END OF THE FIRST WEEK OF SCHOOL.

Student Agreement Sheet – BIOL 1306, BIOL 1106, BIOL 1307, BIOL 1107
Fall 2019- Spring 2020

Principles of Biology I & II
Lecture Student Information & Agreement Sheet
Angelo State University

I,_____, (print your name) have read the information contained in the Principles of Biology I & II Syllabus for the Fall 2019 and Spring 2020 Semester at Angelo State University and fully understand the expectations, requirements, and regulations for completing this course successfully. In addition, I pledge to maintain the highest standards of academic honesty, integrity, and discipline while I am enrolled in this course. I acknowledge that I understand and am responsible for the material contained in the syllabus. My signature confirms that I am familiar with the expectations for Dual Credit courses and accept the academic challenge. I agree to devote my best efforts to successfully completing the course(s) that I select. I understand these classes offer increased rigor and challenge and I agree to request help when I need it and to attend tutorials if I fall behind in class assignments or experience difficulty with course content. I understand that my success in these courses is primarily my responsibility and I agree to follow the expectations outlined in this document.

SIGNATURE:_____TODAY'S DATE: _____

Parent/Guardian Form

I _____ the parent/guardian of

_____ have read the course syllabus and understand what is required of my student in this course. I have read the honor code and district requirements and understand that my student is expected to follow the expectations outlined in this document. My signature confirms that I am aware that Dual Credit courses require increased rigor and challenge and I agree to support and encourage my student to successfully complete this course. I will notify the teacher immediately of any concerns I have relating to the classes or my student's progress.

_____ Date _____

(Parent/Guardian Signature)