BIO 1408 (4:3:3)

General Biology for Non-Science Majors I

Department of Biology

Division of Arts and Sciences

SOUTH PLAINS COLLEGE

Levelland Campus

Dr. Eric Niederhauser
Fall 2023

Course Information
Biology I for Non-Science Majors (BIOL 1408)
Fall 2023

INSRUCTOR: Dr. Eric Niederhauser
OFFICE PHONE: 806 716-2321
EMAIL: eniederhauser@southplainscollege.edu. Please include the course number (1408) and section number in the subject. I generally try to respond promptly to emails. Evening or Saturday response times may be delayed. I respond to emails received on Sundays on Monday.
OFFICE HOURS: Mon: 10:00 – Noon, 2:30 - 3:30; Tue and Wed: 11:00– Noon; Thu: 1:30-2:30; Friday: 9:00 – 11:00.

Course Description: This general biology course is devoted to exploring the properties, structures and functions shared by all organisms with an emphasis on humans. These properties involve: cells, chemistry, energy, genetics, evolution, and interactions. We will also learn about science and the process of scientific discovery.

Course Implementation:
PREREQUISITE: None. CREDIT: Four semester hours
RECOMMENDED TEXT: Campbell, *Essential Biology with Physiology*, 6th Ed. by Simon, et al.
REQUIRED LAB MANUAL: Download from Blackboard and print. You must bring it to lab.

Blackboard: Current grades, course information, lecture notes, links etc. will be available on Blackboard, accessed through https://southplainscollege.blackboard.com. You are responsible for checking Blackboard regularly.

Email: I may send emails to your SPC email address periodically throughout the semester. You are responsible for any information that is sent to your SPC email by me or the college, so please check it regularly.

Grading

EXAMS: There will be five exams given during the semester covering both lecture and lab. One exam will be online. The exams will be announced in advance and primarily cover lecture material but may include information from lab. The exams will be primarily multiple choice but will include fill-in-the blank, short answer or essay questions. The final exam will be comprehensive.
Missed exams: If you know in advance that you will be absent on an exam date, notify me ahead of time, it MAY be possible to take the exam at an alternate time. If you unexpectedly miss an exam and do not contact me within 24 hours, I will not consider a makeup exam and you will receive a zero for the exam.

IN-CLASS QUIZZES: There will be quizzes at the beginning of most classes. If you are late for class, you will not get credit for questions missed. There will be no in-class quiz makeups but at least three of the lowest in-class quiz grades will be dropped. Quizzes will use a remote clicker system.

ASSIGNMENTS: Graded assignments may be assigned. I will not accept them late.

LAB GRADES: Based on lab attendance and assignments.

GRADING SUMMARY

Grade Type	Percentage of Grade
Exams	60 %
In-Class Quizzes	20 %
Lab Grades/Assignments	20 %

Grading scale: Final semester average 90-100 = A; 80-89 =B; 70-79 = C; 60-69 = D; <60 = F.
Last Day to Drop the Course: Nov 30, 2023

Policies, Procedures and Rules

This course will be conducted according to the policies and procedures of the South Plains College Student Handbook and General Catalog.

Attendance Policy: Attendance is mandatory. Students are responsible for all information discussed during absences from class - regardless of the reason.

When absences become excessive and, in the opinion of the instructor, minimum course objectives cannot be met, the student will be withdrawn from the course. Any student with 4 absences or tardies will be withdrawn from the class.

Once a week, class meetings consists of lecture period AND a lab period; consequently, being absent from either class OR lab will count as an absence for the day and any work missed will receive a grade of zero. Labs cannot be made up.

Tardy Policy: Arriving to class late is disruptive. If you are late, please come in quickly and quietly take your seat. A student who is consistently tardy will be withdrawn from the class. If you are late please see the instructor after class to ensure you were noted as present. See me if there is a problem or if you know you will be late. Barring emergency, there is no excuse for being tardy to lab. If you are late for lab you will lose participation credit for the lab.

Classroom Conduct: To create an effective learning environment, respect must be shown to your fellow students and to the instructor. Disruptive and disrespectful behavior will not be tolerated.
Disruptive and disrespectful behavior includes:

- Cell phone use. **Cell phones should not be in view at any time.**
- Earbuds in your ear during lecture or lab.
- Use of other electronic devices including laptops. Research shows that taking notes by hand is more effective. Tablets used horizontally on the table for note taking with a stylus are OK. I reserve the right to allow laptop use on an individual basis.
- Leaving class during lecture. **If you will need to leave early let me know**.
- Sleeping in class or lab.
- Eating in lab. Discrete food consumption in lecture is tolerated.
- Failure to follow general instructions.
- Talking out of turn, cursing, inappropriate gestures etc.

You will receive a zero for the day's quiz for disruptive behavior and may be asked to leave the classroom. If the poor behavior is deemed excessive the student may be withdrawn from the course.

Academic Integrity: The attempt of any student to cheat or present as her/his own any work, which she/he has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

Examples of cheating and dishonesty include (but are not limited to): plagiarism, illegal possession of examinations, the use of unauthorized notes or texts during an examination or quiz, obtaining information during an exam from the exam paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in an office.
You must use your own words on exams.

Lab Safety: Each student will be informed/trained on the "Chemical Hygiene Plan (CHP) for Laboratories at South Plains College" during the first week of the semester. Each student will be required to acknowledge receipt of this information and be required to follow all procedures outlined by the instructor and/or staff of South Plains College.

Material Safety Data Sheets (MSDS): These data sheets detail any potential hazards associated with the chemicals used in the laboratory. The MSDS notebook is located in room 146 of the science building. All students are encouraged to read about the chemicals used in the lab in the MSDS notebook. Please ask the instructor if you need assistance.

For information regarding official South Plains College statements about

- **Intellectual exchange**
- **Disabilities**
- **Non-discrimination**
- **Title V Pregnancy Accommodations**
- **CARE Team**
- **Campus Concealed Carry**

please visit https://www.southplainscollege.edu/syllabusstatements/

Niederhauser General Weekly Schedule

	Mon	Tue	Wed	Thu	Fri
8 am	1408 001	1406 004	1408 001	1406 004	
	Lecture	Lecture	Lecture	Lecture	
9	S80	S83	S80	S83	Office Hours
	Office Hours	Office Hours	1408 001	1406 004	
10			LAB	LAB	
			S189	S197	
11					
12 pm					
1	1408 002		1408 002		
	Lecture		Lecture		
2	S80		S80		
	Office Hours		1408 002 Lab		
3					
			S189		
4					
5					

1408 Fall 2023 Tentative Schedule			
Unit	**Week #**	**Lecture Topic**	**Lab Topic**
Introduction, Building Blocks of Life	1	Welcome/Intro - What is Life?	Safety / Microscopes / Discovery Science
		Life Organized/Chemistry for Biology	
	2	Labor Day	Metric System/ Data Analysis
		Chemistry for Biology	
	3	Molecules of Life: Carbs, Lipids	Experimental Design/ Daphnia on Drugs
		Molecules of Life: Protein, DNA	
	4	Cell Structure	Organic Molecules
		Catch Up and Review	
	5	**EXAM 1 (Sep 25th/ 26th)**	Cells/Mitosis
The Working Cell		Cell Division (Mitosis)	
	6	Cell at Work - Energy and Enzymes	Diffusion and Osmosis
		Cellular Respiration	
	7	Photosynthesis	Respiration/ Photosynthesis
		Carbon and Energy in Ecosystems	
	8	**EXAM 2 (Oct 16th/ 17th)**	Mitosis vs Meiosis / Karyotypes
Genetics		Meiosis	
	9	Patterns of Inheritance Mendel	Drosophila Start/ Genetic Problems
		Inheritance - Beyond Mendel	
DNA	10	Structure of DNA	Genetic Problems/ DNA Structure/Protein Synthesis
		Function of DNA/Viruses/Mutation*	
	11	How Genes are Controlled	Drosophila Count
		Cloning/Gene Cancer	
	12	DNA Technology	Genes in a Bottle/ Micropipette Use
		DNA Technology Applications	
	13	**EXAM 4 (Nov 20th/21st)**	No Lab
		Thanksgiving Break	
Evolution/ Ecology	14	Evolution by Natural Selection	DNA Fingerprinting
		Evolution Evidence	
	15	Ecology Intro. Case study 1	Natural Selection
		Ecology Case study 2	
		Final EXAM	No Lab
***EXAM 3** Genetics. Online. Opens Thursday Nov 2, 5 pm. Closes Sunday Oct 29 11:59 pm			