

BIO 1406 (4:3:3)

General Biology I

Department of Biology

Division of Arts and Sciences

SOUTH PLAINS COLLEGE

Levelland Campus

Fall 2022

Instructor

Dr. Eric Niederhauser

Course Information

Biology I for Science Majors (BIOL 1406) Fall 2022

Instructor: Dr. Eric Niederhauser

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Office Hours: Monday: 9:30 – Noon, 2:30 – 3:30

Tuesday: 9:30 – Noon

Friday: 9:00 – 11:00

Course Description: This course focuses on fundamental principles of living organisms including the chemistry of life, cell and molecular biology, genetics and evolution. This is the first semester of an integrated course for majors in biological sciences and related studies, including the medical disciplines.

Course Implementation:

PREREQUISITE: None. CREDIT: Four semester hours

RECOMMENDED TEXT: Campbell *Biology*, 12th Ed. by Urry et.al. Others ARE acceptable.

REQUIRED LAB MANUAL: *Biology for Science Majors I & II, Lab Manual*, by South Plains College Biology Department. Available only at the SPC bookstore.

Blackboard: Grades, course information, lectures, links etc. will be available on Blackboard, accessed through <https://southplainscollege.blackboard.com>. You are responsible for checking Blackboard regularly. You can always see your current grade on Blackboard

Emails and Announcements: I may post announcements on Blackboard and/or send emails to your SPC email address periodically throughout the semester. You are responsible for any information that is in the announcements or sent to your SPC email by me or the college, so please check them regularly.

Grading

EXAMS: There will be four exams given during the semester covering both lecture and lab. The exams will be multiple choice, true or false, fill-in-the blank, short answer and essay questions. The final exam will be comprehensive.

Do not miss exams. If you know in advance that you will be absent on an exam date, notify the instructor ahead of time. It MAY be possible to take the exam at an alternate time. If you miss an exam and do not contact me within 24 hours, I will not consider a makeup exam. Failure to notify me will result in a zero for the exam.

IN-CLASS QUIZZES: There will be quizzes at the beginning of most classes that will address the previous lecture and lab. If you are late for class your quiz grade will suffer. There will be no in-class quiz makeups but at least three of the lowest in-class quiz grades will be dropped. Students with 4 or more absences and/or tardies (for any reason) will NOT have the lowest quiz grades dropped. Quizzes will use a remote clicker system.

LAB GRADES: Lab material is incorporated into Exams, Quizzes/Assignments. Credit will also be given for attendance (which is required). There are no lab makeups.

GRADING SUMMARY

Grade Type	Percentage of Grade
Exams	70 %
In-Class Quizzes	20 %
Lab Attendance/Assignments	10%

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: Dec 1, 2022

This course must be completed with a grade of C or better for the student to take General Biology II (Biology 1407) at South Plains College.

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.

General Attendance Policy: Punctual and regular class attendance is mandatory. Students are responsible for all class work covered during absences from class, even in cases in which the absence was unavoidable. 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 5 absences or tardies (to lecture and/or lab), or 4 consecutive absences will be withdrawn from the class.

Each Thursday class consists of lecture period AND a lab period; being absent from either class OR LAB will count as an absence.

If something extraordinary arises during the semester, I will certainly take this into consideration and some exception to the attendance policy may be made. If you intend to withdraw from the course, please see me and officially withdraw. Do not just stop coming to class. Please meet with the instructor should problems arise.

A student who does not attend a class by the 12th day of classes will automatically be deleted from the class rolls.

COVID 19: If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376. Proof of a positive test is required. A home test is sufficient but you must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

You are clear to return to class without further assessment from DeEtte Edens, BSN, RN if you have completed the 5-day isolation period, symptoms have improved, and you are without fever for 24 hours without the use of fever-reducing medication.

You must communicate with DeEtte Edens, BSN, RN prior to your return date if still symptomatic at the end of the 5-day isolation.

To be excused from attendance requirements, the above procedure must be followed.

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. 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, 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 during an examination or quiz, obtaining information during an exam from the textbook or 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.

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Privacy: The federal law guaranteeing student privacy is the policy of this professor as well as that of SPC. This means that I will not discuss your grade with anyone other than you. I will NOT discuss your grade with your parents, guardians, friends, etc.

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 which may be incurred while utilizing various chemicals 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.

Non-Discrimination Statement: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Campus Concealed Carry - Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group difference and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Health and Wellness Center. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Health and Wellness Center at 806-716-2529 or email dburleson@southplainscollege.edu for assistance.

Resources for help: My goal is your success. If you have any questions or concerns, ASK ME! Please! Anything that affects your performance as a student is important to me and South Plains College. We will do everything we can to support you and help you succeed.

Specific places to seek help depend on the factors that are affecting your performance:

ACADEMIC: Instructor, Tutors, Learning Center - 3rd floor library building.

PERSONAL: Health & Wellness Center (8 free counseling appointments per year).

HEALTH: Student Health Clinic (free for students with 6 or more credit hours).

Bio 1406 Tentative Schedule Fall 2022

		Lecture		Laboratory		Ex.
Unit	Week	Date	Topic	Topic		
Organization and Chemistry of Life	1	Tue, Aug 30 Thu, Sep 1	Introduction: Life Defined and Organized Chemistry for Biology	Safety/Microscopes/Scientific Method (Daphnia)	LS,1,5	
	2	Tue, Sep 6 Thu, Sep 8	Water and Life, Carbon Organic Chemistry, Carbohydrates	Metric System / Data Analysis	2,3	
	3	Tue, Sep 13 Thu, Sep 15	Lipids, Nucleic Acids Proteins	Organic Molecules	4	
	4	Tue, Sep 20 Thu, Sep 22	Cell Structure The Cell Cycle (On exam 2)	Cells, Mitosis	6, 11	
	5	Tue, Sep 27 Thu, Sep 29	EXAM 1 Membrane Structure and Function	Diffusion and Osmosis	7	
The Cell In Action	6	Tue, Oct 4 Thu, Oct 6	Introduction to Metabolism Enzymes	Enzymes	8	
	7	Tue, Oct 11 Thu, Oct 13	Cellular Respiration Photosynthesis	Respiration/ Photosynthesis	9	
	8	Tue, Oct 18 Thu, Oct 20	Biomass, Energy in Ecosystems EXAM 2	TBA		
	9	Tue, Oct 25 Thu, Oct 27	Meiosis and Sexual Life Cycles Mendel and the Gene Idea	DNA Extraction, Drosophila Start	15, 16	
Genetics, DNA	10	Tue, Nov 1 Thu, Nov 3	Beyond Mendel DNA Structure and Replication	Remove Flies, Genetic Problems	13, 14	
	11	Tue, Nov 8 Thu, Nov 10	Gene Expression 1, Transcription From Gene to Protein 2, Mutation, Viruses,	Fly Analysis, Protein Simulation, Karyotypes, Genetic Problems	12, 16	
	12	Tue, Nov 15 Thu, Nov 17	EXAM 3 Regulation of Gene Expression	PCR Day 1	17, 19	
	13	Tue, Nov 22 Thu, Nov 24	DNA Technology Thanksgiving Break	No Lab		
	14	Tue, Nov 29 Thu, Dec 1	DNA Tech Applications Descent With Modification	Protein Fingerprinting	18	
Evolution	15	Tue, Dec 6 Thu, Dec 8	The Evolution of Populations The Origin of Species	PCR Day 2	19	

Final EXAM Dec 13, 8:00 am