

BIOL 1406 (4:3:3)

Biology for Science Majors I

Department of Biology

Division of Arts and Sciences

SOUTH PLAINS COLLEGE

Levelland Campus

Fall 2018

Instructor

Dr. Scott Starr

BIOL 1406-004 – Biology for Science Majors I – Syllabus – Fall 2018

Instructor: Dr. Scott Starr
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Office Hours: My office hours will be held at the following times or by appointment.
Monday- 1-2pm
Tuesday- 1-2:30pm
Wednesday- 11am-12pm
Thursday- 1-2:30pm
Friday- 8:30 - 11:30am

Class Room: Lecture- Science Building, Room 181; Mon/Wed 2:30 – 3:45pm
Lab- Science Building, Room 197; Wed 4:00 – 6:30pm

Textbook & Manuals: **Required** - Campbell BIOLOGY, 11th edition by Reece et al. (**any format** is acceptable—printed, e-text, online access, etc.)
Required - Lab Manual: *Biology for Science Majors I & II Lab Manual*, 2nd edition (Available only at the SPC bookstore)

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

Course Objectives:

- A. To introduce basic biological principles through an integrated approach.
- B. To investigate the cellular processes of living organisms with an emphasis on biological chemistry applications.
- C. To investigate the mechanisms of genetics and inheritance.
- D. To introduce the role and mechanisms of evolution in biology.

Methods of Assessment:

Final grades will be based on the following scale:

A = 100-90%; B = 89-80%; C = 79-70%; D = 69-60 %; F = 59-0%

Activities	Points
Unit Exams (4)	70%
Quizzes	20%
Assignments	10%
	100.00%

Criteria for Grade Determination: Over the course of the semester there are several opportunities to earn points. I have briefly described each activity below:

Exams- There will be four exams (including the final). These exams will assess your knowledge of the covered material in both lecture and lab. Any student who misses an exam will have a 0 score entered for that exam. Exam 4 will be a cumulative test.

- Make-up exams will be given *only* in the event of serious illness, a legitimate emergency, or death of an immediate family member; in each case, the **appropriate documentation must be provided** to the instructor.
- I will only consider allowing a student to make up an exam if they have contacted me **within 24 hours** of the exam. Notice before the exam is preferred.

Quizzes- There are a total of 12 weekly quizzes throughout the semester. Quizzes will be given each week on Blackboard (available Wednesday at 7:00pm and due on Sunday at 11:59pm). Each quiz will cover the lecture **AND** lab material.

- The lowest two (2) quiz grades will be dropped before the final quiz average is calculated at the end of the semester.
- **Quizzes CANNOT be made up if missed for any reason.**
- **Please make sure to be using a reliable computer on a reliable internet connection to take quizzes. Only on rare occurrences will quiz attempt be reset.**

Assignments- Assignments will consist of activities done in lecture and lab. Due dates for each assignment will be given at the time it is assigned.

Classroom 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-

- Punctual and regular lecture and lab attendance is required of all students.
- Open door policy: if you do arrive late quietly take your seat. You may not make up any work that was missed. Excessive tardiness will not be tolerated and may result in withdrawal from the course (**3 late arrivals exceeding 10 minutes = 1 unexcused absence**).
- In the case of unexcused absence, the student will receive a 0 for the work submitted that day and it is the student's responsibility to obtain missed notes from classmates.
- When unavoidable situations such as illness, weather, an official college-sponsored trip, or a death in the family causes absence, the student may make up the missed class work

as long as documentation can be provided. The student will have one week from the date the makeup work is assigned to turn it in for credit.

- The student may be administratively withdrawn from the course when absences become excessive (**5 unexcused absences or more**) and the minimum course objectives cannot be met. Also the instructor is required to initiate a student's administrative withdrawal when the student has missed every class period for two weeks excluding holidays. If you stop showing up to class after exam 2, it is **your** responsibility to drop the course.
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- Should a student, for any reason, delay in reporting to a class after his/her official enrollment, absences will be attributed to the student from the first meeting of the class. A student who does not attend a class by the 12th day of classes will automatically be dropped from the course and receive a grade of "X".

Classroom Civility: To create and preserve a classroom atmosphere that optimizes teaching and learning, all participants share a responsibility in creating a civil and non-disruptive forum. Students are expected to conduct themselves at all times in this classroom in a manner that does not disrupt teaching or learning. *Cell phones must be turned off during class*, unless you have informed me that you are expecting an emergency message before class or the instructor has given permission to use for an activity.

Hazardous Weather Policy- South Plains College rarely cancels classes due to weather. Students should plan accordingly to be able to attend all classes and arrive at SPC Levelland safely. Announcements concerning cancellations and/or delays are made on local television, radio and MySPC.

Grade Dispute: If you feel that there has been an error in your grade for a test or assignment, I require all students to follow the **24/7** policy. You must wait **24** hours after receiving your graded work before contacting me in writing (**by email**) to explain the issue with the grade and to set up a meeting to talk about the grade. During this time, thoroughly compare your work to the textbook or other relevant materials to ensure your answer is correct. You have **7** days after receipt of the returned work to bring a grading issue to my attention. After the **7** day time period, no grades can be disputed.

Email: Email is my preferred mode of communication. I answer emails Mon-Fri, 9am to 5pm. Please allow 24 hours for response on weekdays and 48 hours on weekends, as I do not answer emails over weekends. Students must contact me using their SPC email and I expect student to also check their SPC emails daily as this is one of the main ways I will be distributing information.

Blackboard: I will use Blackboard in this course primarily for important course announcements, reminders, PowerPoint handouts (posted prior to the lecture), Quizzes, and to post grades. I recommend checking Blackboard before each class so you can print off/access lecture slides. Firefox or Safari internet browsers are recommended.

Academic Integrity

- It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present any work as their own which he or she has not honestly performed is regarded SPC as a most serious offense and renders the offender liable to serious consequences, possibly suspension.
- Any student caught cheating on an exam will be dropped immediately from the course with an “F”. Any student caught cheating on a quiz will receive a permanent 0 for that grade that may not be dropped or replaced.

Electronic Devices

- ALL electronic devices should be silenced inside the classroom. Devices that may be out during lecture include laptops, tablets, and in *special circumstances*, cell phones.
- If an electronic device goes off repeatedly during lecture or lab, **5 points will be deducted from the student’s next major exam grade per incident.**
- If a device is being utilized for anything other than what is being covered in class that day, the student will be dismissed from class and will receive a 0 for the day. If a student is a repeat offender and cannot control their electronics usage out of respect for others, the student will be dismissed from the course.
- **Phones and smartwatches must be put away during exams.**
- **You may NOT record the lectures or take photos/videos of the instructor.**

Privacy

The federal law guaranteeing student privacy is the policy of this instructor as well as that of SPC. This means that I will not discuss your grade with anyone other than YOU.

Dismissal Policy

A high standard of conduct is expected of all students. It is assumed that obedience to the law, respect for properly constituted authority, personal honor, integrity, and common sense will guide the actions of each member of this class. Any student who fails to perform to expected standards will be asked to withdraw from the class. Descriptions of misconduct are listed in the South Plains College Student Guide.

Diversity Statement [\(4.1.1.1.\)](#)

In this class, the instructor will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of use 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.

Special Accommodations [\(4.1.1.2.\)](#)

Any student will special accommodations should identify themselves the first week of class. The student is responsible for providing the necessary documentation from the SPC Disabilities Services offices.

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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

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. Please ask the instructor if you need assistance.

Title IX Pregnancy Accommodations Statement (4.1.1.4)

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 Director of Health and Wellness. 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 Chris Straface, Director of Health and Wellness at 806-716-2362 or email cstraface@southplainscollege.edu for assistance.

Campus Concealed Carry

South Plains College permits the lawful carry of concealed handguns in accordance with Texas state law, and Texas Senate Bill 11. Individuals possessing a valid License to Carry permit, or the formerly issued Concealed Handgun License, may carry a concealed handgun at all campus locations except for the Natatorium. For a complete list of campus carry exclusions zones by event, please visit: <http://www.southplainscollege.edu/campuscarry.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.

Emergency Response: Register for SPC's emergency alert systems. In the event of an emergency during class, you MUST follow the directions of your instructor(s) and emergency personnel for evacuation to designated assembly areas.

Fire Alarms – Ensure any active experiments are shut down, i.e. don't cause another situation. Leave the room immediately. Make your way to the predetermined "meet-up" location outside of the building.

Tornado Warnings – Ensure any active experiments are shut down, i.e. don't cause another situation. Leave the room immediately. Make your way to an area within the building with no windows.

Active Shooters – Follow the directions given by the instructor. **ALiCE Active Shooter Response Training Sessions are made available to students throughout each semester.**

Tentative Schedule:

Schedule may change when needed. Students will be notified ahead of time.

<i>Tentative Lecture and Exam Schedule</i>					<i>Laboratory Schedule</i>
Date		Topic	Campbell Biology 11th ed.	Assignments	Exercise
Week 1	Aug. 27	Introduction			Lab Intro/CHP/Safety
	Aug. 29	The Chemical Context of Life	Ch. 2	Quiz 1	Microscopes (Ex. 5)
Week 2	Sep. 3	No Class - Labor Day Holiday			Scientific Method (Ex. 1), Independent Investigations
	Sep. 5	Water	Ch. 3	Quiz 2	
Week 3	Sep. 10	Carbon and the Molecular Diversity of Life	Ch. 4		Testing for Organic Molecules (Ex. 4)
	Sep. 12	The Structure and Function of Macromolecules, Enzymes	Ch. 5	Quiz 3	
Week 4	Sep. 17	A Tour of the Cell	Ch. 6		Cell Lab
	Sep. 19	EXAM 1			
Week 5	Sep. 24	Cells & Membrane Structure and Function	Ch. 7		Diffusion and Osmosis (Ex. 7)
	Sep. 26	Introduction to Metabolism	Ch. 8	Quiz 4	
Week 6	Oct. 1	Cellular Respiration	Ch. 9		Enzyme Lab (Ex. 8)
	Oct. 3	Cellular Respiration (cont.)	Ch. 9	Quiz 5	
Week 7	Oct. 8	Photosynthesis	Ch. 10		Photosynthesis and Respiration (Ex. 9 & 10)
	Oct. 10	Photosynthesis (cont.)	Ch. 10	Quiz 6	
Week 8	Oct. 15	The Cell Cycle	Ch. 12		Mitosis (Ex. 11)
	Oct. 17	EXAM 2			

Week 9	Oct. 22	Meiosis and Sexual Life Cycles	Ch. 13		DNA Extraction, Fruit Fly Genetics Day 1 (Ex. 15), Genetics Problems (Ex. 14)
	Oct. 24	Mendel and the Gene Idea	Ch. 14	Quiz 7	
Week 10	Oct. 29	Chromosomal Basis of Inheritance, Molecular Basis of Inheritance	Ch. 15 & 16		Genetics Problems (Ex. 14), Fruit Fly Genetics Day 2 (Ex. 15), Karyotypes
	Oct. 31	Mol. Basis of Inheritance (cont.)	Ch. 16	Quiz 8	
Week 11	Nov. 5	From Gene to Protein	Ch. 17		Fruit Fly Analysis (Ex. 15), Protein Simulation (Ex. 16)
	Nov. 7	From Gene to Protein (cont.)	Ch. 17	Quiz 9	
Week 12	Nov. 12	Regulation of Gene Expression & Viruses	Ch. 18 & 19		PCR Day 1 (Ex. 19), Double Helix Video
	Nov. 14	DNA Technology and Genomics	Ch. 20	Quiz 10	
Week 13	Nov. 19	EXAM 3			No Lab
	Nov. 21- 23	THANKSGIVING HOLIDAY			
Week 14	Nov. 26	Descent with Modification	Ch. 22		Protein Fingerprinting (Ex. 18)
	Nov. 28	Evolution of Populations	Ch. 23	Quiz 11	
Week 15	Dec. 3	Evolution of Populations (cont.)	Ch. 23		PCR Day 2 (Ex. 19)
	Dec. 5	The Origin of Species	Ch. 24	Quiz 12	
Week 16	Dec. 10 – 13	FINALS WEEK			
	Section 004	FINAL EXAM- December 10, 1:00PM – 3:00PM			

The last day to drop a course is November 15th.

****The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better student learning.****