

Course Number: BIOL 1307 and 1107 – Lecture (3) and Laboratory (1) credit

Course Description: Biology is the “study of life.” It is a laboratory-based science course emphasizing the process of scientific investigation through the study of living things. Biology is a comprehensive course which studies all levels of living things. You will learn diversity and classification of all living things. You will be learning characteristics of prokaryotes, protists, fungi, plants and animals with special emphasis given to anatomy, physiology, ecology and evolution of the six kingdoms.

Instructor:	Dr. Zacher
Office:	Room 312
Office Hours:	7 – 8am M-F and 4 – 5 pm M and W
Contact Information:	mzacher@pi-isd.net

Learning Outcomes:

1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution and speciation.
5. Describe phylogenetic relationships and classification schemes.
6. Identify the major phyla of life with an emphasis on plants and animals including the basis for classification, structural and physiological adaptations, evolutionary history and ecological significances.
7. Describe basic animal physiology and homeostasis as maintained by organ systems.
8. Compare different sexual and asexual life cycles noting their adaptive advantages.
9. Illustrate the relationship between major geologic change, extinctions and evolutionary trends.

Core Objectives:

1. Critical Thinking – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills – to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. Teamwork – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Course Lecture Topics

Unit	Topic/Lecture/Event	Resources to View & Measurable Activities
1	Scientific Method Review Origin and History of Life Taxonomy, Systematics and Phylogeny	Exams 1 & 2 (LO 1, 2, 3, 4, and 8)
2	Invertebrate Evolution Vertebrate Evolution Human Evolution	Exams 3, 4 & 5 (LO 5 and 6)
3	Animal Organization and Homeostasis	Exam 6 (LO 7) Midterm
4	Circulatory and Cardiovascular Systems Digestive System and Nutrition Respiratory System	Exam 7, 8 & 9 (LO 7)
5	Sense Organs Locomotion and Support Systems	Exams 10 & 11 (LO 7)
6	Conservation and Biodiversity	Exam 12 (LO 8)
	Final Exam	Final Exam (LO 1-7; CO 1-4)

Activities: Laboratory and other kinesthetic activities will be completed with every unit.
More activities will be implemented as time allows.

*** caveat: time line may change dependent on class progress***

Required Text and Materials:

Campbell, Neil A. and Jane B. Reece. AP Biology, 7th Ed. Pearson 2005.

Course Expectations:

1. You will be tested approximately every two weeks.
2. You will be quizzed at least twice a week.
3. You are expected to have a notebook, or organizational system approved by me, in which to keep all class notes, handouts, lab write ups, etc.
4. You will be expected to have said notebook with you daily. No excuses.
5. You will be expected to turn in ALL work on time unless approved by me.
6. Plagiarism, or passing someone else's work off as your own, will not be tolerated in any manner. When in doubt, document!!!

Class Expectations:

1. Be in class, ON TIME, everyday. (Tardies are not tolerated)
2. Be PREPARED every day. (Notebook, pen or pencil, and brain engaged)
3. Be RESPECTFUL every day. This includes being respectful to yourselves, your classmates, and to me.
4. Be SILENT when I am addressing the class.
5. Be SILENT when your classmates are addressing the class.
6. Be RESPONSIBLE for yourselves and pick up your own trash.
7. Disruptive and/or immature behavior will NOT be tolerated.
8. Cell phone usage will not be permitted. If you have a cell phone in this classroom, it needs to be on silent mode and kept inside your backpack or bag.

Grading Procedures:

1. All homework and class work will be graded promptly and given a grade.
2. Quizzes will be given announced or unannounced. BE PREPARED!!
3. Quizzes, Tests, Projects, and Presentations will count for 60% of the nine weeks high school grade. They will count for 60% of your TSTC semester grade.
4. Daily work, homework, and participation will count for 40% of the nine weeks grade. They will count for 40% of your TSTC semester grade.
5. Midterm and Final exams will be 15% of your semester grade.

Grading Scale:

90-100.....A

80-89.....B

70-79.....C

60-69.....D **not applicable for high school grade

0-59.....F

Make Up Work Procedures:

It is the students' responsibility to acquire and complete assignments or assessments after their absence. The school district policy will be followed.

Accommodation Statement:

If you have a documented disability which will make it difficult for you to carry out class work as outlined and/or if you need special accommodations due to a disability, please contact (956) 364-4520 or visit the Support Services Office in the Auxiliary Services Building as soon as possible to make appropriate arrangements.

Copyright Statement:

The materials used in the course [textbooks, handouts, media files (podcast, MP3, Videos, RSS (Feeds), and all instructional resources on the colleges Learning Management System (Moodle)] are intended for use only by students registered and enrolled in this course and are only to be used for instructional use, activities associated with, and for the duration of the course. All materials generated for this course, which includes but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and any additional materials. These materials may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act. These materials may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder or TSTC. For further information contact your instructor.

I have received a copy of the syllabus and understand the conditions of the course. I understand my behavior or lack of progress in this course may cause the instructor to withdraw me at any time.

Student's Signature

e-mail address

Date