

BIOL 1408.2
Introduction to Biology I
Fall, 2011

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Start/End Date: August 22, 2011 – December 9, 2011

Modality: Web-Enhanced

Credits: 4 sch

Course Description: This course is a survey of biology including molecular and cellular biology, genetics, DNA, evolution and ecology. The cellular and molecular basis of life will be emphasized. Current topics in biology and medicine will be discussed. Designed as a transferable lab science course for non-science majors. Lab fee required.

Pre-Requisites: None

Scans: 3, 6, 9

Course goals: This course focuses on the science of biology in the modern world and how our rapidly expanding knowledge of living organisms from bacteria to humans is being applied in ways that impact our health, our foods and our future. During this course, you will:

1. Learner will understand how scientific advances are made and what advances have laid the foundation for modern biology.
2. Learner will be able to identify the basic characteristics of life shared by all living organisms including how living cells function and reproduce.
3. Learner will understand be able to explain how the energy in sunlight is transformed into the oxygen we breathe, the foods we eat and the chemical energy we use to maintain most bodily functions through a process known as photosynthesis.
4. Learner will understand how the atoms and molecules of chemistry are transformed into the plants and animals of the living world by the 'Language of Life' contained in DNA.
5. Learner will understand and be able to explain what biotechnology is and how, through genetic engineering, advances in biotechnology are reshaping medicine and agriculture.
6. Learner will understand and be able to discuss what ethical and, in some cases, legal challenges are developing because of rapid scientific advances in the applications of biotechnology.
7. Learner will understand how changes in DNA occur naturally and how such changes can lead to disease on the one hand, and evolutionary advance and new biological species on the other.

Textbooks:

Textbook: *What is Life?: A Guide to Biology*, 2nd ed., by Jay Phelan

Lab Book: *Biology: Laboratory Manual*, 10th ed., by Sylvia Mader

Grading and evaluation:

Four lecture exams	(400 pts)
Chapter quizzes	(80 pts)
Final exam	(200 pts)
Four lab practicals	(200 pts)
Presentation	(100 pts)

Grades will be based on a percentile scale. At the end of the semester, earned points will be divided by the total number of possible points and multiplied by 100 to give a final average percentile score.

A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, F = Below 60%

A comprehensive make-up exam will be given to replace a missed exam. If a family crisis, sever illness, or other emergency causes you to miss an exam, it is **your** responsibility to make arrangements for a make-up exam to be taken before the next class meeting following the exam, OR you may take the comprehensive make-up at the end of the semester. These are the only two choices.

Attendance: Attendance is vital to your success in this class. Attendance will be taken at the beginning of each class period. There for it is necessary that you be on time.

Special Information: Cheating or plagiarism will not be tolerated. If a student is suspected of cheating/plagiarism, they will be subject to being dropped from the course with a grade of "F"

Cell phones and pagers should be turned off during all class times

Special Needs: Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (Library): The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian" service provide additional help.

Student E-Mail: Please access your Odessa College student email by following the link to either set up or update your account: <https://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support: For Blackboard username and password help and for help accessing your online course availability or student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm

Important School Policies: For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or students' and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).

TENTATIVE LECTURE SCHEDULE

Week of		
Aug	22	Intro to Class
	29	Ch. 1: Scientific Thinking
Sept	5	Ch. 2: Chemistry
	12	Ch. 2: Continued
	9/23	Exam I (1 & 2)
	19	Ch. 3: Cells
	26	Ch. 3: Continued
Oct	3	Ch. 4: Energy
	10	Ch. 4: Continued
	10/14	Exam II (3 & 4)
	17	Ch. 5: DNA, Gene Expression and Biotechnology
	24	Ch. 5: Continued
Nov	31	Ch. 6: Chromosomes and Cell Division
	11/7	Exam II (6 & 7)
	7	Ch. 7: Mendelian Inheritance
	14	Ch. 8: Evolution and Natural Selection
	21	Ch. 8: Continued
	23 - 25	Thanksgiving Break!!!
Dec	28	Ch. 8: Continued
	11/30	Exam IV (7 & 8)
	7	Final Exam (8:00 am – 10:30 am. Please bring 2 green scantrons)