BIOL 1408.2
Biology I for Non-Science Majors
Spring, 2013

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Start/End Date: January 22, 2013 – May 16, 2013
Modality: Web-Enhanced
Credits: 4 sch

Course Description: This course is a survey of biology including molecular and cellular biology, genetics, DNA. 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 how cells replicate for growth and reproduction.

6. Learner will understand how genes are passed from one generation to the next.

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: *Biology: A Guide to the Natural World,5th* ed., by David Krogh
Lab Manual: Lab Manual: Biology, 10th ed., by Sylvia Mader

Grading and evaluation:

Five lecture exams	(500pts)
Attendance/Participation	(100 pts)
Final exam	(100 pts)
Four lab practicals	(200 pts)
Chapter Quizzes	(140pts)

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

Expectations for Engagement – Face to Face Learning

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
    - provided my contact information at the beginning of the syllabus;
    - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,

- notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.

2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
    - provide clear information about grading policies and assignment requirements in the course syllabus, and
    - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.

3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
    - return classroom activities and homework within one week of the due date and
    - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
    - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
    - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
    - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.

2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
    - missing class when a major test is planned or a major assignment is due;
    - having trouble submitting assignments;
    - dealing with a traumatic personal event; and,
    - having my work or childcare schedule changed so that my classroom attendance is affected.

3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
    - seek out help from my instructor and/or from tutors;
    - ask questions if I don't understand; and,
    - attend class regularly to keep up with assignments and announcements.

Special Needs: Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of1990. 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

Jan	23	Intro to Class
	28	Ch. 1: Science As a Way of Learning
	30	Ch. 2: Fundamental Building Blocks
Feb	4	Ch. 2: Continued
	6	Ch. 3: Life's Components

	11	Ch. 4: Life's Home
	13	Ch. 4: Continued
	18	Study Groups
	20	**Exam I (Chapters 1, 2 & 3)**
	25	Ch. 5: Life's Border
	27	Ch. 6: Life's Mainspring
Mar	4	Study Groups
	6	**Exam II (Chapters 4 & 5)**
	11	**Spring Break!**
	13	**Spring Break!**
	18	Ch. 7: Vital Harvest
	20	Ch. 8: The Green World's Gift
	25	Ch. 9: The Links in Life's Chain
	27	Study Groups
Apr	1	Ch. 9: Continued
	3	**Exam III (Chapters 6, 7 & 8)**
	8	Ch. 10: Preparing for Sexual Reproduction
	10	Ch. 11: The First Geneticist
	15	Ch. 11: Continued
	17	Study Groups
	22	**Exam IV (Chapters 9, 10 & 11)**
	24	Ch. 12: Units of Heredity
	29	Ch. 13: Passing On Life's Information
May	1	Ch. 14: How Proteins are Made:
	6	Study Groups
	8	**Exam IV (12, 13 & 14)**
	13	**Final Exam (8:00 am – 10:30 am. Please bring 2 green scantrons)**

Attendance: Laboratory attendance is mandatory.

Jan		Intro to Class
	23	Intro to Class
	28	Scientific Method
	30	Scientific Method
Feb	4	Microscopy
	6	Microscopy
	11	Study Groups
	13	Exam 1 (Scientific Method, Microscopy)
	18	Chemistry
	20	Chemistry
	25	Chemical Composition of Cells
	27	Chemical Composition of Cells
Mar	4	Cell Structure & Function
	6	Study Groups
	11	Spring Break!
	13	Spring Break!
	18	Exam 2 (Chemistry, Composition of Cells, Cell Structure & Function)
	20	Enzymes
	25	Cellular Respiration
	27	Cellular Respiration
Apr	1	Photosynthesis
	3	Photosynthesis
	8	Study Groups
	10	**Exam 3 (Enzymes, Cellular Respiration & Photosynthesis)**
	15	Mitosis
	17	Meiosis
	22	Mendelian Genetics
	24	Mendelian Genetics
	29	Human Genetics
May	1	Human Genetics
	6	Study Groups
	8	**Exam 4 (Mitosis, Meiosis & Genetics)**