

## Course Syllabus Biol. 1406.2 Fall 2011

**Department:** Biology      **Course Title:** General Biology I (majors)      **Name:** BIOL\_1406\_2  
**Start Date:** 08/22/2011      **End Date:** 12/03/2011      **Modality:** FACE-TO-FACE  
**Credits:** 4  
**Instructor's Name:** Clovis Stacey      **OC Email:** cstacey@odessa.edu  
**Instructor's Office:** WH 130      **OC Phone #:** (432) 335-6543

**Course Description:** This course is a study of the organizational aspects of cells from molecular to organismic levels. Students learn to understand and interpret terms and discover principles covering cell anatomy, cell biochemistry, cellular respiration, photosynthesis, cell reproduction, evolution, ecology, and genetics. In laboratory activities students learn to perform basic mathematical calculations of converting between the metric and English systems of measurement, acquire experimental data and apply reason to the interpretation of principles underlying the observations including cause and effect relationships. Designed as a transferable lab science course for science majors. Lab fee required.

**Prerequisites/Corequisites:** Pass reading on THEA or COMPASS and be eligible for College Algebra by passing math on THEA or COMPASS or by passing the developmental math sequence.

**Scans:** 1, 3, 6, 9

### Course Objectives:

1. Learner will be able to identify the significant concepts of the atom and how it forms bonds with other atoms to form molecules, the difference between inorganic molecules and organic molecules and recognize the various forms of each and the significance of these forms as they relate to living organisms and identify the 4 macromolecular molecules found common to living organisms and their units of structure as well as their functions important for life.
2. Learner will be able to understand the cell in terms of its anatomical structure and the functions of each structure and understand the processes by which substances move into and out of the cell.
3. Learner will be able to explain energy production and utilization by the different forms of cells which are common to our planet.
4. Learner will be able to understand the heredity of life and the alterations which occur in it's structure and the consequences of these alterations.
5. Learner will be able to recognize the importance of evolution to the continuity of living forms and the various forms of support for evolution.
6. Learner will be able to understand the various concepts of ecology required to have a rudimentary grasp of its aspects.

**Required Readings/Materials:** *Campbell Biology*. 9<sup>th</sup> edition, by N. A. Campbell, J. B. Reece, L. A. Urry, M. L. Cain, S. A. Wasserman, P. V. Minorsky, and R. B. Jackson; Pearson, 2010; ISBN-10: 0321558235, ISBN- 13: 9780321558237

**Grading Policy:** The learners semester grade for the course is determined by calculating the below percentiles for each area, and then adding the percentiles for each area together for a percentage out of 100:

Lecture test grades = 70%                      Lab test grades                      = 30%

A= 89.5 – 100

B = 79.5 - 89.49

C = 69.5 - 79.49

D = 59.5 - 69.49

F = <59.5

**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 E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

**Student Portal:** Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://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 and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](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](#).

### Department Specific Information:

1. Last Day to drop the class with a "W" is Thursday, April 14, 2011.
2. Cell phones must be turned off while the student is in the classroom.

### Tentative Lecture Schedule

<b>Aug.</b>	22	Introduction to the class: Overview of class and class policies
	24	Ch. 1: Themes in the Study of Life
	26	Ch. 1 continued;
	29	Ch. 2: The Chemical Context of Life
	31	Ch. 2 Continued
<b>Sept.</b>	02	Ch. 2 Continued
	<b>05</b>	<b>Labor Day Holiday No Classes</b>
	07	Ch. 3: Water and Life
	09	Ch. 3 Continued
	12	Ch. 3 Continued
	<b>14</b>	<b>Test 1 (Ch. 1 - 3)</b>
	16	Review Test 1; Ch. 4: Carbon and the Molecular Diversity of Life
	19	Ch. 4 Continued
	21	Ch. 4 Continued
	23	Ch. 5: The Structure and Function of Large Biological Molecules
	26	Ch. 5 Continued
	28	Ch. 5 Continued
	30	Ch. 6: A Tour of the Cell
<b>Oct.</b>	03	Ch. 6 Continued
	05	Ch. 6 Continued
	07	Ch. 7: Membrane Structure and Function
	10	Ch. 7 Continued
	12	Ch. 7 Continued
	<b>14</b>	<b>Test 2 (Ch. 4 - 7)</b>
	17	Review Test 2; Ch. 8: An Introduction to Metabolism
	19	Ch. 8 Continued
	21	Ch. 8 Continued
	24	Ch. 9: Cell Respiration and Fermentation
	26	Ch. 9 Continued
	28	Ch. 9 Continued
	31	Ch. 9 Continued
<b>Nov.</b>	02	Ch. 9 Continued
	04	Ch. 10: Photosynthesis
	07	Ch. 10 Continued
	<b>09</b>	<b>Last Day to drop or withdraw with a "W"</b>
	09	Ch. 10 Continued
	<b>11</b>	<b>Test 3 (Ch. 8 – 10)</b>
	14	Test 3 Review; Ch. 14: Mendel and the Gene Idea
	16	Ch. 14 Continued

- 18 Ch. 14 Continued
- 21 Ch. 14 Continued
- 23-27 Happy Thanksgiving- no classes**
- 28 Ch. 15: The Chromosomal Basis of Inheritance
- 30 Ch. 15 Continued
- Dec. 06 Test 4 (Ch. 14 & 15)**
- 07 Final Exam, Wednesday, Time: 8:00-10:30 am, Room: WH 111**

### TENTATIVE LABORATORY SCHEDULE

**Biology 1406**

**Fall 2011**

**LABORATORY MANUAL:** Biology 10<sup>th</sup> ed. Laboratory Manual, by Sylvia S. Mader, WCB McGraw-Hill

**LABORATORY ATTENDANCE:** The laboratory portion of this course is mandatory. Any student who misses 2 or more labs will not receive attendance points at the end of the semester. .

**TESTING:** There are four lab exams at 100 pts. each. A deduction of points will be given for misspelling.

<b>Week of</b>	<b>LABORATORY EXERCISE</b>
<b>Aug</b> 22	Measurement (2)
29	Metrics (handout)
<b>Sept</b> 05	No Lab
12	Microscopy (2)
<b>19</b>	<b>QUIZ I (metrics handout, 2);</b> Basic Chemistry (handout)
26	Chemical Composition of Cells (3)
<b>Oct</b> 03	Cell Structure and Function (4)
10	<b>QUIZ II (Basic Chemistry Handout ,3,4) ;</b> Enzymes (5)
17	Cellular Respiration (7)
24	Photosynthesis (6)
31	<b>QUIZ III (5,6,7) ;</b> Mitosis (8)
<b>Nov</b> 07	Meiosis (8)
14	Mendelian Genetics (handout), Human Genetics (10)
21	No Lab
28	<b>QUIZ IV (8, 10, handout)/Comprehensive Lecture Make-up</b>