

## Course Syllabus Biol. 1406.2 Fall 2012

<b>Department:</b> Biology	<b>Course Title:</b> General Biology I (majors)	<b>Name:</b> BIOL_1406_2
<b>Start Date:</b> 08/27/12	<b>End Date:</b> 12/14/2012	<b>Modality:</b> FACE-TO-FACE
<b>Credits:</b> 4	<b>Day:</b> MWF	<b>Time:</b> 9:00 – 9:50 am
<b>Instructor's Name:</b> Clovis Stacey	<b>OC Email:</b> cstacey@odessa.edu	
<b>Instructor's Office:</b> WH 130	<b>OC Phone #:</b> (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.

**ICO:** 1, 2, 3, 4, 5

### 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](http://www.odessa.edu/gmail/), 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:** Odessa College uses the Student Portal found on the OC Homepage

**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](#).

**Student Success:** The Odessa College Student Success Coaches will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a Retention Alert or a Starfish Alert. A Student Success Coach will contact you to work toward a solution.

**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.

### Department Specific Information:

1. Last Day to drop the class with a "W" is Wednesday, November 14, 2012.
2. Cell phones must be turned off while the student is in the classroom.

### Tentative Lecture Schedule

<b>Aug.</b>	27	Introduction to the class: Overview of class and class policies
	29	Ch. 1: Themes in the Study of Life
	31	Ch. 1 continued;
<b>Sept.</b>	<b>03</b>	<b>Labor Day Holiday No Classes</b>
	05	Ch. 2: The Chemical Context of Life
	07	Ch. 2 Continued
	10	Ch. 2 Continued
	12	Ch. 3: Water and Life
	14	Ch. 3 Continued
	17	Ch. 3 Continued
	<b>19</b>	<b>Test 1 (Ch. 1 - 3)</b>
	21	Review Test 1; Ch. 4: Carbon and the Molecular Diversity of Life
	24	Ch. 4 Continued
	26	Ch. 4 Continued
	28	Ch. 5: The Structure and Function of Large Biological Molecules
<b>Oct.</b>	01	Ch. 5 Continued
	03	Ch. 5 Continued
	05	Ch. 6: A Tour of the Cell
	08	Ch. 6 Continued
	10	Ch. 6 Continued
	12	Ch. 7: Membrane Structure and Function
	15	Ch. 7 Continued
	17	Ch. 7 Continued
	<b>19</b>	<b>Test 2 (Ch. 4 - 7)</b>
	22	Review Test 2; Ch. 8: An Introduction to Metabolism
	24	Ch. 8 Continued
	26	Ch. 8 Continued
	29	Ch. 9: Cell Respiration and Fermentation
	31	Ch. 9 Continued
<b>Nov.</b>	02	Ch. 9 Continued
	05	Ch. 9 Continued
	07	Ch. 9 Continued
	09	Ch. 10: Photosynthesis
	12	Ch. 10 Continued
	<b>14</b>	<b>Last Day to drop or withdraw with a "W"</b>
	14	Ch. 10 Continued
	<b>16</b>	<b>Test 3 (Ch. 8 – 10)</b>

	19	Test 3 Review; Ch. 14: Mendel and the Gene Idea
	<b>21-23</b>	<b>Happy Thanksgiving- no classes</b>
	26	Ch. 14 Continued
	28	Ch. 14 Continued
	30	Ch. 14 Continued
<b>Dec.</b>	03	Ch. 15: The Chromosomal Basis of Inheritance
	05	Ch. 15 Continued
	<b>07</b>	<b>Test 4 (Ch. 14 &amp; 15)</b>
	<b>12</b>	<b>Final Exam, Wednesday, Time: 8:00-10:30 am, Room: WH 111</b>

**TENTATIVE LABORATORY SCHEDULE**  
**Biology 1406**  
**Fall 2012**

**LABORATORY MANUAL:** Biology 11<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> 27	Measurement (2)
<b>Sept.</b> 03	Metrics (handout)
10	No Lab
17	Microscopy (2)
<b>24</b>	<b>QUIZ I (metrics handout, 2); Basic Chemistry (handout)</b>
<b>Oct.</b> 01	Chemical Composition of Cells (3)
08	Cell Structure and Function (4)
<b>15</b>	<b>QUIZ II (Basic Chemistry Handout ,3,4) ; Enzymes (5)</b>
22	Cellular Respiration (7)
29	Photosynthesis (6)
<b>Nov.</b> 05	<b>QUIZ III (5,6,7) ; Mitosis (8), Meiosis (8)</b>
12	Mendelian Genetics (handout),
<b>19</b>	<b>Happy Thanksgiving- no classes</b>
26	Mendelian Genetics (handout), Human Genetics (10)
<b>Dec.</b> 03	<b>QUIZ IV (8, 10, handout)/Comprehensive Lecture Make-up</b>