Concepts of Biology  
BIO 121.001  
Spring 2016

**Instructor:**  Dr. Bea Clack  
**Department:**  Biology  
**Email:**  bclack@sfasu.edu  
**Phone:**  468-1017  
**Office:**  S113 (If not in office then in S110, 219A/B or 205)  
**Office hours:**  Monday 2-5, Wednesday 2-5 or by appointment.

**Text and Materials:**  
2) Student Access Kit for Mastering Biology  
   (www.masteringbiology.com)  
3) Course ID: MBCLACK35657  
4) Clicker Mode NXT required (see picture below)

**Course time:**  Monday, Wednesday and Friday, 10-10:50 AM Vera Dugas Liberal Arts North 102

**Course Description:**  Bio121 is a concepts oriented course for the non-science major. Within this course the student will study the origin of life, the cell, growth and reproduction, genetics and evolution.

**Number of credit hours:**  3

**Course Requirements:**  
- Concepts of Biology Lab (BIO 121L) is a co-requisite with BIO 121 Lecture. The lecture grade comprises 2/3 of the total grade, with the lab contributing 1/3.

- Four 100 point major exams will be given in lecture. The fourth test is the final exam. Dates of exams are shown on the course calendar.
Lecture exams will be multiple choice and will be answered using a clicker (model no. NXT Response card).

Information from lecture notes, text chapters, and assigned homework will be included on exams.

Weekly homework assignments will be completed using Mastering Biology (www.masteringbiology.com). Homework will be worth a total of 100 points (1/6 of your lecture grade. To earn these points you must purchase a Student Access Kit for Mastering Biology. You'll need to join the course using the following course ID: **MBCLACK35657**

Once you've registered for Mastering Biology (instructions are in the Access Kit).

Participation in the on-line student evaluations for both BIO 121 lecture and BIO 121L is a mandatory course requirement. Failure to participate will result in a 1% reduction in lecture and laboratory grades. Instructions for meeting this requirement will be given towards the end of the semester.

**Program Learning Outcomes:**
There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum and/or a service course.

**General Education Core Curriculum Objectives/Outcomes:**

Texas State Exemplary Educational Objectives in the Natural Sciences addressed by this course are:

**Objective one** requires that students “Understand and apply method and appropriate technology to the study of natural sciences.”

**Objective two** states that students must be able “To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretations both orally and in writing.”

**Objective three** states that students must be able “To identify and recognize the differences among competing scientific theories.”

**Objective four** states that students must be able “To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.”

**Objective five** states that students must be able “To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.”

**General Education Core Curriculum**
This course has been selected to be part of Stephen F. Austin State University’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to
the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

**Student Learning Outcomes:**

Students who complete Concepts of Biology will be able to:

1. Explain the scientific method and critically evaluate scientific information (EEO 1, 2, 5).
2. Identify the chemical basis for life and the characteristics that distinguish living things from inanimate matter (EEO 3, 4, 5).
3. Illustrate how genetic information is passed from parents to offspring and how this genetic information is expressed by cells (EEO 2, 4, 5).
4. Classify the diversity of life forms from the species to kingdom level (EEO 2, 4).
5. Analyze biological interactions that occur from the sub-cellular to the ecosystem level of organization (EEO 1, 2, 4, 5).
6. Discuss the role of evolution in the history of life on Earth (EEO 1, 3).

**Tentative Course Calendar:**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>01/20</td>
<td>Introduction to the Course</td>
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<tr>
<td>01/22</td>
<td>Chapter 1 Introduction: Biology Today</td>
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<td>01/25</td>
<td>Chapter 2 Essential Chemistry for Biology.</td>
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<td>01/27</td>
<td>Chapter 3 The Molecules of Life</td>
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<td>02/03</td>
<td>Chapter 4 A Tour of the Cell</td>
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<td>02/10</td>
<td><strong>Lecture Exam I - Chapters 1-3</strong></td>
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<td>02/12</td>
<td>Chapter 5 The Working of the Cell</td>
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<td>02/17</td>
<td>Chapter 6 Cellular Respiration: Obtaining Energy from Food</td>
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<td>02/24</td>
<td><strong>Lecture Exam II –Chapters 4-6</strong></td>
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<td>02/26</td>
<td>Chapter 7 Photosynthesis: Using Light to Make Food</td>
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<td>03/02</td>
<td>Chapter 8 Cellular Reproduction: Cells from Cells.</td>
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03/12 – 20 Spring Break

03/21 Mon   Chapter 8 continued
03/23 Wed   Easter Break
03/25 Friday   Chapter 9 Patterns of Inheritance

03/30 Wed

04/01 Friday

04/04 Mon   Lecture Exam III – Chapters 7, 8, 9
04/06 Wed   Chapter 10 The Structure and Function of DNA
04/08 Friday

04/11 Mon
04/13 Wed
04/15 Friday   Chapter 11 How Genes are Controlled

04/18 Mon
04/20 Wed
04/22 Friday

04/25 Mon   Chapter 12 DNA Technology
04/27 Wed
04/29 Friday

05/02 Mon   Chapter 13 How Populations Evolve
05/04 Wed
05/06 Friday

5/9-5/13 Final Exam Week.
Final Exam: Monday May 9, 10:30-12:30 AM

Grading Policy:
Your lecture average will be calculated as follows:
Points earned on 4 exams (400 pts max), attendance points (100 pts max) & homework (100 pts max)
Up to 600 lecture points averaged then normalized to a max of 100%
After receiving grades from the lab, your course average will be calculated as follows:
Lecture avg + Lecture avg + Lab avg
Course grades will be assigned as follows:
Course average of 90% = A, 80 - 89% = B, 70 - 79% = C, 60 - 69% = D, Below 60% = F

Attendance Policy:
Students must attend lecture. Your attendance is 1/6 of your lecture grade.
There are no makeup opportunities for in-class points, regardless of the reason for the absence.
Only students with an excused absence will be allowed to make up an exam. Makeup exams will be of a different format than the original test, consisting primarily of completion and short answer questions. Excused absences will be granted for: students participating in university sponsored events, serious illness, or a family emergency. Otherwise, you will need to bring written confirmation of illness or emergency from a doctor or family member to be granted an excused absence. University policy states that students with acceptable excuses will be permitted to make up work for absences to a maximum of 3 weeks of a semester (p. 43, General Bulletin). ONCE YOU HAVE MISSED 9 CLASS DAYS DO NOT EXPECT TO MAKE UP AN EXAM, OR FOR THE INSTRUCTOR TO PROVIDE ANY MAKEUP MATERIALS. Students with unexcused absences will receive a 0 for missed exams.

**Academic Integrity (A-9.1)**

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

**Withheld Grades Semester Grades Policy (A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Acceptable Student Behavior**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct
Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

In BIO 121.001 the activities below are considered unacceptable:

- **USING CELL PHONES OR OTHER ELECTRONIC DEVICES DURING CLASS.**
- Arriving late.
- Leaving before class dismissal.
- Walking in and out of class during the lecture.
- Talking while class is in session.
- Students exhibiting unacceptable behavior will lose attendance points for the class session (1/6 of your lecture grade).
- No Laptop computers or tablets may be used for note taking. **ONLY THOSE WHO HAVE GONE THROUGH DISABILITIES SERVICES MAY USE ELECTRONIC DEVICES DURING CLASS.**