Biology for Non-Majors ONLINE Biology 110-502 Spring 2016 Syllabus

Instructor: Dr. Miriam J. Chávez

Office: Room 100B, Health Science Building

Office Hours: Monday & Wednesday 8:00-9:00 and 10:30 to 11:30 a.m.

Tuesday & Thursday 10:30 a.m. to Noon

Phone: 925-8613

E-mail: mjchavez@unm.edu

Course Description:

Introductory biology class covering cell biology, genetics, ecological and evolutionary topics. Credit not allowed for both Biology 123 and 110. Credit is not applicable toward biology major or minor.

Student Learning Objectives:

The course is divided into 6 modules and at the completion of this course, student will be able to:

- 1. Introduction to biology
 - a. Describe the scientific method
 - b. List the characteristics of living things
- 2. Chemistry
 - a. Describe the atomic structure
 - b. Compare and contrast the chemical bonds
 - c. Compare and cotntrast the four major organic molecules
- 3. Cells
 - a. Identify and give function of structures
 - b. Describe cellular transport
 - c. Explain cellular metabolism and photosynthesis
- 4. Genetics
 - a. Describe the DNA structure
 - b. Summarize replication, transcription and translation
 - c. Explain cellular division
 - d. Solve genetic problems

- 5. Ecology and evolution
 - a. Describe the process of evolution
 - b. Explain how organism interact with each other and environment
- 6. Diversity
 - a. Describe plant diversity
 - b. Describe animal diversity
 - c. Describe microbial diversity

Required Learning Resources:

1. Text: <u>Biology: Essentials</u> by Hoefnagel, 2nd edition, 2016, McGraw Hill Publisher (ISBN 978-1-259-29498-3)

http://connect.mheducation.com/class/m-chavez-valencia---biology-110---502-spring-2016

- 2. Course Webpage: https://learn.unm.edu/. The webpage contains resources you need to succeed in the course. Login using your UNM user name and password. You are responsible for all announcements, assignments, quizzes, tests and/or any changes to the syllabus will be posted on the webpage. I strongly urge you to check each week for assignments and due dates.
- **3. LearnSmart:** There is a LearnSmart assignment for every chapter covered. You are responsible for completing 17 assignments; these are ONLY available through the McGraw Hill Connect webpage.

You will earn ten points for completing the LearnSmart (LS) assignment To earn full credit they must be completed by the due date. These assignments are to help you understand the material that was covered in the chapter. They will help you do well in the quizzes and exams.

Course Policies:

- 1. Assignments. There will be weekly assignments that must be turned in by Sunday at 11:59 p.m. The assignments will be based on the readings and will help you to understand and learn the topic for the week. You are allowed to get help from a tutor or work with another student. I also encourage you to contact me if you have any questions, but do not wait until the last minute. The assignment has to be written in your own words.
- 2. Quizzes. Quizzes will be timed and you will be allowed to take each quiz twice if needed. You will also be allowed to drop one quiz. All quizzes are to be taken by Thursday by 11:59 p.m. Quizzes will be available on Wednesday morning.
- **3. Exams.** You will have a limited time to take each exam and only allowed to take it once. Prepare yourself and give yourself plenty of time before starting the exam. All exams are to be taken on Thursday by 11:59 p.m. The exams will be available on Tuesday morning.

- **4. Withdrawal.** If a student drops the course before February 5, it will not appear on their transcript. After February 5 a "W" will be issued.
- **5. Drop policy.** If the student has missed three assignments/quizzes, he/she will be dropped from the class
- **6. Study habits.** To be an effective professional, information must be learned and retained efficiently. Studies have shown that information which is "experienced" a number of times within a short period of time frequently goes into long-term memory. Be an active student.
 - Look and read the chapter outline after reading the outline for each week.
 - Read the chapter. It will take you **more than one** reading to understand the material presented.
 - Learn the vocabulary.
 - Look at the PowerPoint slides.
 - Keep up with the assignments.
 - Give yourself plenty of time to study for a quiz or exam.

Special Needs:

Qualified students with disabilities needing appropriate academic adjustments should contact the instructor by the end of the 1st week of the semester to ensure that your needs are met in a timely manner.

Academic Dishonesty:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

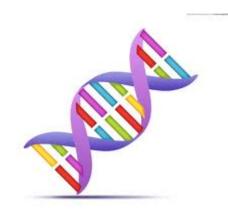
Grading Criteria for Assigning Final Course Grade:

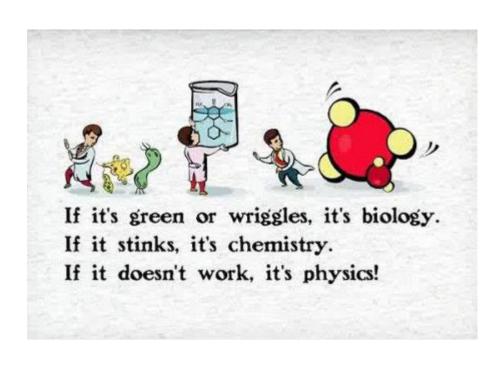
| Exams (3) | 300 points |
|------------------------|------------|
| Final Exam | 110 points |
| Connect LS Assig. (17) | 170 points |
| Quizzes (5 out of 6) | 125 points |
| Assignments (14) | 140 points |
| Introduction Hmk | 15 points |

The student's total points will be divided by the total possible points (860) and the grade earned will be based on the following percentage:

| 100 or higher - A+ | 77-79 - C+ |
|---------------------|----------------|
| 94-99 – A | 73-76 - C |
| 90-93 – A- | 70-72 - C- |
| 87-89 - B+ | 60-69 – D |
| 83-86 – B | below $60 - F$ |
| 80-82 - B- | |







Course Outline

| Week | Week of | Chapter - Topic | |
|----------------------------|---|---|------------------------|
| 1 | January 18 | Ch. 1 - Scientific Study of Life | |
| | | Introduction - Assignment 1 Due | |
| 2 | January 25 | Ch. 2 - Chemistry | |
| | | Assignment 2 Due | Quiz 1 |
| 3 | February 1 | Ch. 3 - Cells | |
| | | Assignment 3 Due | |
| 4 | February 8 | Ch. 3 - Cells | |
| | | Assignment 4 Due | Quiz 2 |
| 5 | February 15 | Ch. 4 – Energy of Life | |
| | | Ch. 5 - Photosynthesis | |
| | | Assignment 5 Due | Exam 1 |
| 6 | February 22 | Ch. 6 – How Cells Release Energy | |
| | | Assignment 6 Due | Quiz 3 |
| 7 | February 29 | Ch. 7 – DNA Structure and Function | |
| | | Ch. 10 – DNA Technology | |
| | | Assignment 7 Due | |
| 8 | March 7 | Ch. 8 – DNA Replication, Binary Fission a | nd Mitosis |
| | | Ch. 9 – Sexual Reproduction and Meiosis | |
| | | | |
| | | 110018111111111111111111111111111111111 | Exam 2 |
| 9 | March 14 | 110018111111111111111111111111111111111 | |
| 9 | March 14 | Assignment 8 Due Spring Break – No assignment due | |
| 9 | March 14 March 21 | 110018111111111111111111111111111111111 | |
| | | Spring Break – No assignment due | |
| | | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance | this week |
| 10 | March 21 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due | this week |
| 10 | March 21 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance | this week |
| 10 | March 21 March 28 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due | this week |
| 10 | March 21 March 28 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution | e this week Quiz 4 |
| 10 | March 21 March 28 April 4 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due | e this week Quiz 4 |
| 10 | March 21 March 28 April 4 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants | Quiz 4 Quiz 5 |
| 10 11 12 13 | March 21 March 28 April 4 April 11 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due | Quiz 4 Quiz 5 |
| 10 11 12 13 | March 21 March 28 April 4 April 11 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due Ch. 17 – Diversity of Animals | Quiz 4 Quiz 5 |
| 10 11 12 13 | March 21 March 28 April 4 April 11 April 18 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due Ch. 17 – Diversity of Animals Assignment 13 Due Ch. 15 – Diversity of Microbial Life Assignment 14 Due | Quiz 4 Quiz 5 |
| 10 11 12 13 | March 21 March 28 April 4 April 11 April 18 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due Ch. 17 – Diversity of Animals Assignment 13 Due Ch. 15 – Diversity of Microbial Life Assignment 14 Due Ch. 18 – Populations | Quiz 4 Quiz 5 Exam 3 |
| 10 11 12 13 14 | March 21 March 28 April 4 April 11 April 18 April 25 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due Ch. 17 – Diversity of Animals Assignment 13 Due Ch. 15 – Diversity of Microbial Life Assignment 14 Due | Quiz 4 Quiz 5 Exam 3 |
| 10 11 12 13 14 | March 21 March 28 April 4 April 11 April 18 April 25 | Spring Break – No assignment due Ch. 10 – Patterns of Inheritance Assignment 9 Due Ch. 10 – Patterns of Inheritance Assignment 10 Due Ch. 12 & 13 - Evolution Assignment 11 Due Ch. 16 – Diversity of Plants Assignment 12 Due Ch. 17 – Diversity of Animals Assignment 13 Due Ch. 15 – Diversity of Microbial Life Assignment 14 Due Ch. 18 – Populations | Quiz 4 Quiz 5 Exam 3 |

^{**} I reserve the right to make necessary changes throughout the course.