Biology Lab for Non-Majors ONLINE Biology 112L-502 Spring 2017 Syllabus

Instructor: Dr. Miriam J. Chávez

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Office Hours: Monday - Thursday 8:00 – 9:00 a.m.
Monday & Tuesday 10:30 – Noon

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Course Description:

This lab will cover similar topics that are discussed in Biology 110. You must be either enrolled in a Biology 110 class this semester or must have taken it previously. Credit is not applicable toward biology major or minor.

Course Learning Objectives:

At the completion of this course, student will be able to:

- 1. Introduction to biology
 - a. Explain the nature and process of science
 - b. Analyze data, construct and interpret graphs
 - c. Critically evaluate scientific information and develop a testable hypothesis to explain phenomena of the natural world
- 2. Chemistry
 - a. Describe the atomic structure of an atom
 - b. Identify macromolecules of life and explain how their structures relate to their functions in cells
- 3. Cells
 - a. Describe how cellular structures and functions are related
 - b. Explain energy transformation pathways in autotrophs and heterotrophs
- 4. Genetics
 - a. Describe the DNA structure
 - b. Explain the basic mechanisms of inheritance from the molecular to organismal level
- 5. Ecology and evolution
 - a. Define biological evolution by natural selection and explain microevolution and macroevolution
 - b. Explain the basic principles of ecology and population, community and ecosystem levels

Required Learning Resources:

1. NO TEXT NEEDED – You must purchase access to the McGraw Hill Connect website (ISBN: 978-0-07-773276-9)

 $\frac{http://connect.mheducation.com/class/m-chavez-unm-valencia---biology-112-lab-spring-2017-section-502$

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, 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 Lab – Connect Website:

- a. All the labs are to be completed at the McGraw Hill Connect website. There are 11 labs that MUST be completed. Each lab is worth 25 points. All labs will be open for a week.
- b. There is a homework associated with each lab also to be completed at Connect website. Each homework is worth 10 points.

Course Information:

- You are responsible for getting the access for this "Virtual Biology Lab" You must buy an access code and set-up a McGraw Hill Connect account.
- All labs and homework are to be completed by Friday found in the Connect Website.
- Late labs or homework. Late assignments will only be accepted within the first week following the due date. There will be a 50% reduction in grade. I will not accept assignments after the first week.
- Midterm and Final exam will be given through Blackboard learn.
- **Withdrawal.** If a student drops the course before February 3 appear on their transcript. After February 3 a "W" will be issued.
- **Drop policy.** If the student has missed three labs, he/she will be dropped from the class

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.

Equal Opportunity and Non-discrimination:

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see page 15 - http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html.

Grading Policy:

The course grade will be determined as follows:

Introduction	25 points
Weekly Labs (11)	275 points
Homework (11)	110 points
Midterm Exam	50 points
Final Exam	75 points

There is a total of 535 possible points. The students earned points will be divided by the total points and grades earned will be based on percentage as follows:

100 or higher A+	90-99 A
80-89 - B	70-79 C
60-69 – D	below 60 F

NOTE – If a student fails to log into Blackboard Learn or does not get access code to the Connect Website by the beginning of the second week in the semester, the student will be dropped from the class.

If you are having trouble getting access to either one, please contact me.

Laboratory Outline

Week	Week of	LearnSmart Lab
1	January 16	Scientific Method
2	January 23	Scientific Method Introduction is due on Tuesday, January 24
3	January 30	Chemical Composition of Cells
4	February 6	Microscopy Biology
5	February 13	Cell Anatomy
6	February 20	Cellular Respiration
7	February 27	Review for Midterm
8	March 6	Midterm Exam
9	March 13	Spring Break – No Labs Due Enjoy your time off!!!!
10	March 20	DNA Biology & Technology
11	March 27	Mitosis & Meiosis
12	April 3	Mendelian Genetics
13	April 10	Human Genetics
14	April 17	Evidence of Evolution
15	April 24	Natural Selection Review for Final Exam
16	May 1	Final Exam
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^{**} I reserve the right to make necessary changes throughout the course.