

Biology 112—502 Syllabus

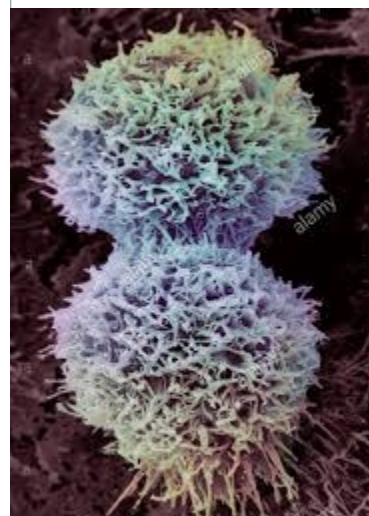
COURSE INFORMATION

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.

MIRIAM'S COURSE DESCRIPTION

I love teaching Biology – the study of life. In this class we will start by learning about the molecules that are part of all cells. Yes – your cells and everything we eat are composed of molecules. Most of the semester we will spend learning about the cell – such wonderful little machines that do all the work within an organism. First we will have to learn about all the cell components – think of them as little organs (organelles). Then, we will have to learn about how our cells obtain energy from food we eat. Next we will discuss DNA – our chromosomes; they are the ones that determine what we look like and everything about us. Have you ever thought about cell division? Why do cells divide? Why do we need to make more cells? These questions will be answered during our discussion on Mitosis and Meiosis. We also will discuss how traits are passed from generation to generation. Look at your family and see what traits you share. The last part of the semester we will spend time talking about how we are just one of many amazing organisms living in the planet – we will discuss other organisms, how we have changed over time, and how all organisms interact with the environment. Now you know why I love teaching Biology – we learn about our body, other organisms, and the environment around us.

Bring the knowledge that you have and take the journey with me as you continue with your educational goals.



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Instructor's Information

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Office Hours: Mon—Thurs 8:00—9:00 a.m.
Tues & Thurs 10:30 to 11:30 a.m.



I have been teaching for 28 years at UNM—Valencia. I am originally from Bolivia and currently live in Los Lunas.

STUDENT LEARNING OUTCOMES

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

Introduction to biology

- Explain the nature and process of science
- Analyze data, construct and interpret graphs
- Critically evaluate scientific information and develop a testable hypothesis to explain phenomena of the natural world

Chemistry

- Describe the atomic structure of an atom
- Identify macromolecules of life and explain how their structures relate to their functions in cells

Cells

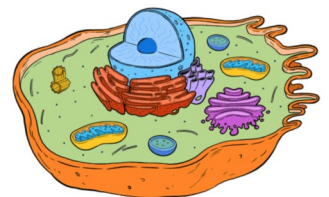
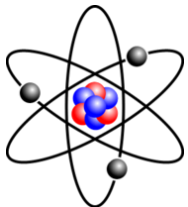
- Describe how cellular structures and functions are related
- Explain energy transformation pathways in autotrophs and heterotrophs

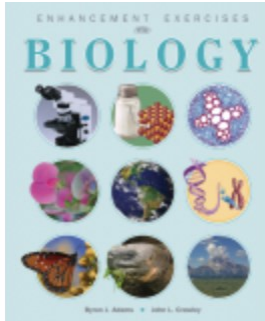
Genetics

- Describe the DNA structure
- Explain the basic mechanisms of inheritance from the molecular to organismal level

Ecology and evolution

- Define biological evolution by natural selection and explain microevolution and macroevolution





REQUIRED LEARNING RESOURCES

1. **Access to Lab Manual** – You will need to purchase access to the lab exercise— <http://unm.odigia.com>.
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, tests and/or any changes to the syllabus will be posted on the webpage.*
3. **Technology & Computer:** In this course, you will need the following technology and computer requirements:

- Dependable computer
- Reliable internet connection
- Computer speakers
- Reliable web browser
- Microsoft Suite (PowerPoint and Word)



“If you can dream it, you can do it” — Walt Disney

TIPS FOR SUCCESS

If you are feeling lost or overwhelmed

Labs. Most labs will require between one to two hours to complete. Make sure that you have the required time to record results and submit your work.



Office hours. I am available to help you succeed in the class; stop by my office and I can clarify information or help you with homework.

Email netiquette. Include an informative subject line (class and concern -- Bio 112L, lab mitosis); include a salutation and closing (sign your name); do not use IM or TXT spelling, but instead use standard English.

SAGE. SAGE (Student Alerts and Grouped Events) is the new Early Alert referral program I will use to send out emailed alerts to both students and staff regarding student progress. This enables streamlined communication between faculty, students and staff to help students succeed at Valencia. Students may receive SAGE referrals on tutoring needs, grades, attendance issues, missing assignments, etc., as well as kudos for a job well done.

COURSE POLICIES

Assignments. Intro lab assignment will be emailed to instructor. All labs (Units 1-8 labs) are to be completed and submitted at the Odigia website by Friday of the week.

Late assignments. 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.

Exams. Midterm and Final exam will be available through Blackboard learn.

Withdrawal. If a student drops the course before February 1 appear on their transcript. After February 1 a “W” will be issued.

Drop policy. If the student has missed three assignments, he/she will be dropped from the class

THINGS TO KEEP IN MIND

Accommodations:

If you have a documented disability and you need a reasonable accommodation made for you in this course, please consult with me immediately at the outset of the course so we can design a solution that will help you be successful in the class.

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>.

*Honesty is the best
policy — Benjamin
Franklin*

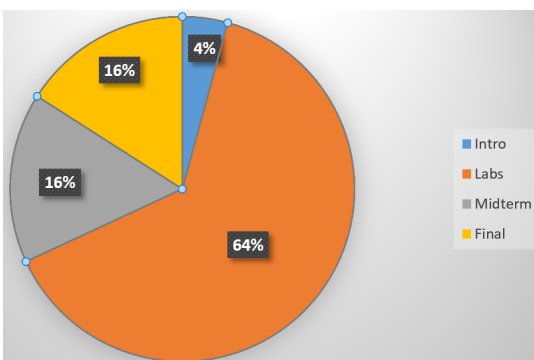
Develop good study habits. Don't wait until the last minute. Give yourself plenty of time to complete assignment.

GRADING CRITERIA—



The course grade will be determined as follows:

Intro to Course	20 points
Weekly Labs (12)	300 points
Midterm Exam	75 points
Final Exam	75 points



There is a total of 470 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 purchase access to Lab Exercises by the end of the second week in the semester, the student will be dropped from the class.*

COURSE OUTLINE

Week	Week of	Lab Assignment
1	January 14	Introduction to Biology 112L
2	January 21	Unit 1: Introduction
3	January 28	Unit 2: Chemistry
4	February 4	Unit 3: Cell Biology
5	February 11	Unit 3: Cell Biology (Transport)
6	February 18	Unit 3: Cell Biology (Energy)
7	February 25	Unit 5: Genetics: Molecular Review for Midterm
8	March 4	Midterm Exam
9	March 11	<i>Fall Break – No Labs Due</i>
10	March 18	Unit 5: Genetics: Molecular
11	March 25	Unit 4: Genetics: Heredity
12	April 1	Unit 4: Genetics: Heredity
13	April 8	Unit 6: Evolution
14	April 15	Unit 7: Diversity of Nature
15	April 22	Unit 8: Ecology Review for Final Exam
16	April 29	Final Exam