

# Biology 110—502 Syllabus

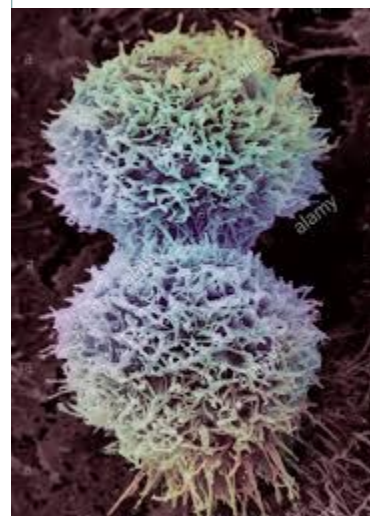
## COURSE INFORMATION

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.

## 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

## Miriam Chávez, Ph.D.

**Office:** Rm 100B, Health Science Building

**Phone:** 925-8613

**E-mail:** mjchavez@unm.edu

**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

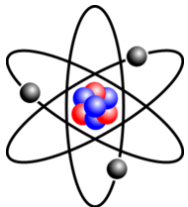
The course is divided into five modules and at the completion of this course, student will be able to:

### 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

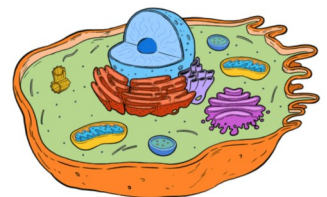
Describe the atomic structure of an atom

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

Explain the basic principles of ecology and population, community and ecosystem levels





## REQUIRED LEARNING RESOURCES

**1. Text:** Concepts of Biology. This book is available in web view and PDF for free from Openstax.org. You can also get the digital version from Amazon for free or a printed copy for a low cost.

**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.*

**3. Technology & Computer:** In this course, you will need the following technology and computer requirements:

Dependable computer

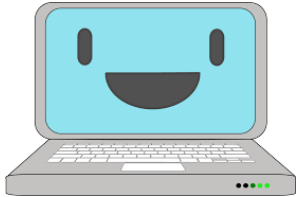
Reliable internet connection

Computer speakers

Reliable web browser

Microsoft Suite (PowerPoint and Word)

Adobe Flash Player



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

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## TIPS FOR SUCCESS

If you are feeling lost or overwhelmed ....

**PowerPoint Slides.** Use the PowerPoint slides for each chapter to guide your reading the chapter. The Learning objectives should be used to make sure that you understand the material for each chapter.



**Study habits.** Look at figures and read the chapter. It may take more than one reading to understand the material presented. Learn the vocabulary.

**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.

**Learning Center.** The learning center has tutors ready to help Biology 110 students. Call the learning center at 925-8907 for available hours. They prefer to make appointments, but if they are not busy you may be able to drop in and find an available tutor. Appointments typically last one hour. Their website is <http://valencia.unm.edu/campus-resources/the-learning-center/index.html>.

**Email netiquette.** Include an informative subject line (class and concern -- Bio 110, quiz 3); include a salutation and closing (sign your name); do not use IM or TXT spelling, 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.** There are nine assignments that must be turned in by Sunday at 11:59 p.m.; they will help you prepare for quizzes/tests. These assignments must be turned in through Learn and are based on the current topic. 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.***

**Review Packets.** There will be three review packets assigned throughout the semester (Exam 1, 3 and final). These assignments will help you apply the material that you have learned and prepare for the exam. They must be submitted through Learn.

**Late assignment/homework/case studies.** 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.

**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.

**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.

**Withdrawal.** If a student drops the course before February 1 it will not appear on their transcript. After February 1 a "W" will be issued.

**Drop policy.** If a student misses three assignments/quizzes, he/she may be dropped from the class. Also, if a student has not logged in to Learn in two weeks he/she may be dropped.

## 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:

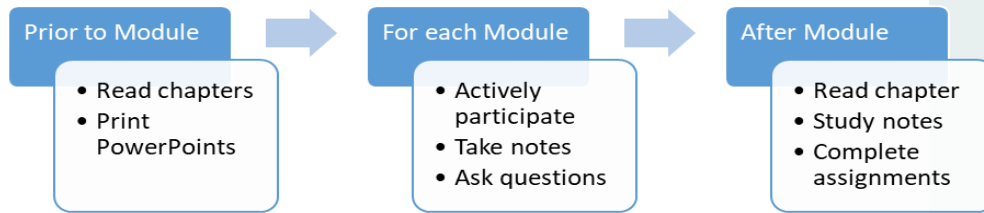
Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to 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](http://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*

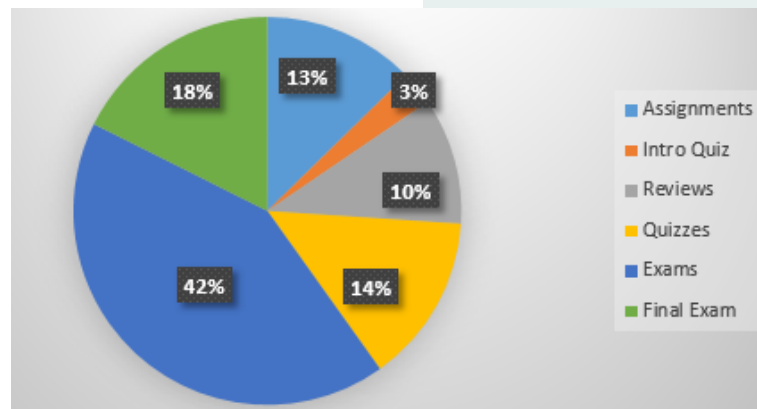
*Develop good study habits. Don't wait until the last minute.*



## GRADING CRITERIA—

### For Assigning Final Course Grade:

Assignments (9)	90 points
Introduction quiz	20 points
Reviews (3)	75 points
Quizzes (4 out of 5)	100 point
Exams (3)	300 points
Final Exam	125 points

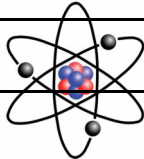
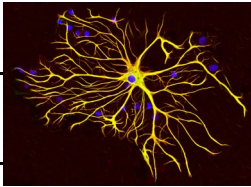
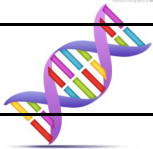


The student's total points will be divided by the total possible points (710) and the grade earned will be based on the following percentage:

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-	

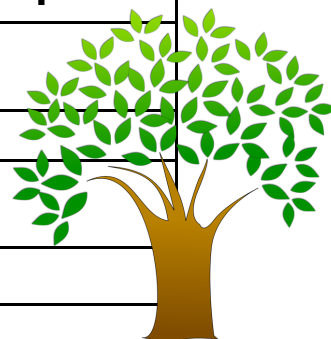


# COURSE OUTLINE

Week	Week of	Chapter - Topic
1	January 14	MODULE 1 – INTRO TO BIOLOGY
		Assignment 1 Due 
2	January 21	MODULE 2 – CHEMISTRY
		Intro Quiz Due
3	January 28	MODULE 3 – CELLS 
		Assignment 3 Due Quiz 1 Due
4	February 4	Cells (Ch. 3)
		Assignment 4 Due Quiz 2 Due
5	February 11	Review #1
		Exam 1 (Chapters 1-3) Due Review #1—due on Sunday, February 17
6	February 18	How Cells Obtain Energy (Ch. 4)
		Assignment 5 Due Quiz 3 Due 
7	February 25	MODULE 4 – GENETICS
8	March 4	Exam 2 (Chapters 4, 5,9) - Due



<b>Week</b>	<b>Week of</b>	<b>Chapter - Topic</b>
<b>9</b>	March 11	<b><i>Spring Break—No Assignments – Enjoy</i></b>
<b>10</b>	March 18	Reproduction at the Cellular Level (Ch. 6)
<b>11</b>	March 25	Cellular Basis of Inheritance (Ch. 7) Patterns of Inheritance – part II (Ch. 8)
		<b>Assignment 6 Due</b> <b>Quiz 4 Due</b>
<b>12</b>	April 1	Patterns of Inheritance – part II (Ch. 8)
		<b>Assignment 7 Due</b>
<b>13</b>	April 8	Review #2
		<b>Exam 3 (Chapters 6-8) Due</b> <b>Review #2— due on Sunday, April 14</b>
<b>14</b>	April 15	<b>MODULE 5 – ECOLOGY &amp; EVOLUTION</b> Evolution & Its Processes (Ch. 11)
		<b>Assignment 8 Due</b>
<b>15</b>	April 22	Diversity of Plants (Ch. 14) Diversity of Animals (Ch. 15)
		<b>Assignment 9 Due</b>
<b>16</b>	April 29	Population and Community Ecology (Ch. 19) Review #3
		<b>Quiz 5 Due</b> <b>Review #3—due on Sunday, May 5</b>
	Wednesday, May 8	<b>Final Exam Due</b>



\*\* I reserve the right to make necessary changes throughout the course.