Biology for Health Science Students and Non-Majors
Biology 123-502
Spring 2018
Syllabus

Meeting time and Place:

Health Sciences Building, Room 101
Tuesday & Thursday 9:00 – 10:15 a.m.

Instructor: Dr. Miriam J. Chávez
Office: Room 100B, Health Science Building
Office Hours: Monday – Thursday 8:00 - 9:00 a.m.
Monday & Thursday 10:30 to Noon

Phone: 925-8613

E-mail: mjchavez@unm.edu

Course Description:

Introductory biology class covering cell biology, genetics and organismic biology. Credit not allowed for both biology 123 and 110. Credit is not applicable toward biology major.

Student Learning Objectives:

The course is divided into 5 modules and 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. Introduction to chemistry
    a. Describe the atomic structure of an atom
    b. Compare and contrast chemical bonding.
    c. Explain the importance of water
    d. 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, including organelles, membranes, and the cytoskeleton
    b. Use the laws of thermodynamics to explain energy transformation and describe the various metabolic energy-transformation pathways in eukaryotic cells.

4. Genetics
    a. Explain the structure and functions of DNA in cells and the mechanisms for replication and regulation of gene expression.
    b. Explain the goals and mechanisms of nuclear division by mitosis and its role in the cell cycle. Explain the significance of meiosis, sexual reproduction, and the generation of genetic diversity and its relation to patterns of inheritance.
5. Human physiology
    a. Explain basic concepts of anatomy and physiology
    b. Explain the relationship of tissue, organ, and organ systems; including their structure and function.

The overall goal of the course is to help you become literate in these scientific concepts and be able to apply them in your life as you move forward in reaching your educational goal.

Required Text:

Inquiry into Life by S. Mader and M. Windelspecht, 15th edition, 2017, McGraw Hill Publisher. The bookstore has a special edition of the book - Biology for Health-Related Sciences or Non-Majors Course, Biology 123, University of New Mexico Valencia Campus, ISBN-9781307044010.

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. PowerPoint slides will be posted. You can also check your grades. ***You are responsible for all announcements & changes to the syllabus posted on the webpage.***

Check your UNM email consistently. Messages from instructor and the institution will be sent to this email.

Course Requirements:

1. **Attendance.** Attendance is necessary for you to participate in class as well as to fully understand the material presented. You are responsible for "signing-in" to document your attendance. This means getting to class on time, remaining for the **entire** class period, & actively participating. If you are missing more than 15 min. of class, it will count as an absence. Unless otherwise advised, after four absences you can be dropped from the class. The student will be held responsible for all material and information regardless of whether the student was in class.
2. **Make-up Exams.** Make-up exams (essay format) will be given to students with a documented emergency. You must notify the instructor the day of the missed exam.
3. **Quizzes.** Make-up quizzes will be given to students with a valid excuse.
4. **Homework.** These will be assigned weekly and there to help you master the concepts presented.

5. **Review Assignments.** There will be three assignments. These will help you apply the knowledge that you have gained. There will be one due before each regular exam.
6. **Late assignment/homework.** Late assignments/homework 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.
7. **Withdrawal.** If a student drops the course before February 2, it will not appear on their transcript. After February 2 a "W" will be issued.
8. **Cell phones.** As a courtesy to the class, please turn off any cell phones or pagers. Please do not text message during class. Any sight of a cell phone during exams or quizzes will result in an automatic fail for that assignment.
9. **Disruptive behavior**. Please avoid any disruptive behaviors in the classroom. This includes going in and out of the class, texting, talking.
10. **Plagiarism**. Only submit work that is yours. Always cite any work used using APA format.

Tips for Success in Class:

- **PowerPoint Slides.** Print PowerPoint slides for each chapter. They contain the Learning objectives and will help you during lecture.
- **Study habits.** Look and read the chapter outline before coming to lecture. 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 123 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 123, quiz 3); 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.

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 Criteria for Assigning Final Course Grade:

Exams (3)	300 points
Final Exam	125 points
Quizzes (4 out of 5)	80 points
Homework (9)	90 points
Assignments (3)	75 points
Attendance	30 points

The student's total points will be divided by the total possible points (700) 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	Date	Chapter - Topic
1	January 16	Overview of Biology 1: Study of Life
	January 18	2: Basic Chemistry ***Homework 1 due***
2	January 23	2: Molecules of Life **Quiz 1**
	January 25	2: Organic Chemistry ***Homework 2 due***
3	January 30	3: Cells Biology
	February 1	3: Cells Structure ***Homework 3 due***
4	February 6	4: Cell Membranes **Quiz 2**
	February 8	**Assignment 1 & Review**
5	February 13	**Exam 1 (Chapters 1-4)**
	February 15	5: Energy & Enzymes
6	February 20	6: DNA Structure & Function
	February 22	6: Gene Expression ***Homework 4 due***
7	February 27	7: Cell Cycle **Quiz 3**
	March 1	7: Cell Division ***Homework 5 due***
8	March 6	**Assignment 2 & Review**
	March 8	**Exam 2 (Chapters 5-7)**
9	March 13	**Spring Break – No classes**
	March 15	**Spring Break – No classes**

10	March 20	8: Cellular Respiration I
	March 22	8: Cellular Respiration II
11	March 27	9: Genetic Inheritance I ***Homework 6 due***
	March 29	9: Genetic Inheritance II **Quiz 4**
12	April 3	10: Chromosomal Inheritance I
	April 5	10: Chromosomal Inheritance II ***Homework 7 due***
13	April 10	**Assignment 3 & Review**
	April 12	**Exam 3 (Chapters 8-10)**
14	April 17	11: Human Organization
	April 19	12: Cardiovascular System I
15	April 24	12: Cardiovascular System II ***Homework 8 due***
	April 26	13: Digestive System **Quiz 5**
16	May 1	14: Respiratory System ***Homework 9 due***
	May 3	Review for Final Exam
	Thursday, May 10	**Final Exam at 9:00 a.m.**

** I reserve the right to make necessary changes