

Biology 123: Biology for Health-Related Sciences/ Non-Majors



UNM Valencia Campus

Semester: Fall

Year: 2015

CRN #: 22768 Section 503. Tuesdays & Thursdays 1:30-2:45 in A133

Credits: 3 credit hours

Course Description: This course is an overview of biological principles important for the health sciences majors and non-major in today's world. Principles of biochemistry, cell biology, genetics, and organismic biology are addressed. *Credit is not applicable toward a biology major or minor.*

Instructor: Dr. Ben Flicker

Contact Information: My office is in the Academic Office in the Arts and Sciences building. My phone number on campus is 505-925-8600. My email address is benflicker@unm.edu. Email is the best way to contact me.

Office hours: Tuesdays 9:30-10:00, Wednesdays 12:00-1:30, or by appointment.

Textbook: *Inquiry into Life*, Sylvia S. Mader & Michael Windelspecht, 2014. 14th edition, McGraw Hill. Access to the "connect" website for the textbook is required for the course. It can be purchased on its own (including access to the electronic book) or as included with the new textbook. It does not come included with the used book. I recommend buying the new book as it is only \$1 more than the connect access/ebook on its own.

UNM Learn: Course materials will be posted on the course website (<https://learn.unm.edu>) This includes the syllabus, all assignments and announcements, as well as links to email the instructor and other students in the course. You are responsible for all such communication on the learn course page, so please check regularly.

Student Learning Objectives:

- 1.) Students will display an understanding of the logic of scientific research.
 - 2.) Students will show comprehension of the chemistry of life including: atomic structure and bonding, movement of molecules, important biological molecules, and metabolic pathways and reactions.
 - 3.) Students will exhibit familiarity with the structure, function and replication of cells and DNA.
 - 4.) Students will demonstrate knowledge of basic concepts and mechanisms of human genetics and inheritance.
 - 5.) Students will understand basic concepts of human physiology including tissue, organ and organ system structure and functions.
- The goal of this class is to help you become literate in these scientific concepts and be able to apply them in your life as you move forward.

Attendance: Attendance is Required for all classes. Students are responsible for getting information presented in any class missed. Students may be dropped from the class after 4 absences. Attendance will be taken via a daily sign-in sheet. Excessive tardiness (greater than 10 minutes) will be counted as an absence. Quizzes and Exams will begin promptly at the beginning of the period. **Arriving late for a quiz or exam could result in a score of zero.**

Learning Center: The learning center has 4 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 www.unm.edu/~tudor.

Withdrawal: If you drop the course after the drop deadline, you will receive a grade of 'W'.

Missed exam/quiz policy: Only official documentation of a medical or family emergency will excuse a missed exam or quiz. In such an instance please contact me as soon as possible to arrange a potential make-up. Un-excused absences on an exam/ quiz date will result in a grade of zero for the assessment.

Students with disabilities: Qualified Students with disabilities should see me or the campus testing center as soon as possible so we can meet your needs suitably and quickly.

Learning Objectives: For each chapter/ topic covered, you will be provided with a list of learning objectives. This list will include the relevant vocabulary terms and concepts that will be covered in that chapter and that you will be responsible for on quizzes and exams.

Learn Smart Activities: Through the course connect webpage (go to this address to register: <http://connect.mheducation.com/class/b-flicker--fall-2015-tr-130>) you will be responsible to complete activities for each chapter by the due date. These are designed to help you target your studying to areas where you are in need of work so that you can be more effective and efficient in your studying. These activities will be a part of your grade and are required for you to pass the course.

Exams: 4 exams will be given. The first 3 will be worth 100 points each. The final exam will be cumulative, comprised of new material covered since the third midterm as well as all previous material. The final exam will be worth 150 points.

Quizzes: 8 online quizzes will be given throughout the semester. (~1 per week) These will be worth 5 points each. These will be used as practice for the in-class quizzes and exams. If you are struggling on these quizzes you will likely struggle on the in-class quizzes & exams. If you need help please see me or check out the learning center. Studying for the sciences often requires different study methods from those used in other courses. I am here to help you succeed in this course in any way I can.

-4 in-class quizzes will also be given throughout the semester. These will be used to help judge your preparedness for the exams. They will cover the same topics as the exams, in less detail. The combination of the 2 quiz types should prepare you for the material present on the exams.

Study Aids: Studying the sciences is, in some ways, similar to learning a foreign language. There are a lot of vocabulary terms that are critical to learn in order to understand the concepts of the course. To aid in that I highly recommend making flash cards of the relevant vocabulary terms given out by the instructor.

A course web page of these critical vocabulary terms has been set up on the studyblue (studyblue.com) server for use on computers and smartphones.

Course Grading Policy: Lecture grades will be based on the percentage of points earned (100% or higher = A+, 99-91% = A, 90% = A-. 88-89% = B+, 87-81% = B, 80% = B-, 79-78% = C+, 77-71% = C, 70% = C-, 69-68% = D+, 67-61% = D, 60% = D-, < 60% = F.

- 30 points: Attendance (30 meetings @ 1 point each)
- 126 points: Learn Smart online activities (18 assignments @ 7 points each)
- 40 points: Connect online quizzes (8 quizzes @ 5 points each)
- 34 points: Class participation & in-class assignments
- 120 points: Quizzes (4 quizzes @ 30 points each)
- 300 points: Exams (3 exams @ 100 points each)
- 150 points: Cumulative final exam
- = 800 Total points

Week	Subjects covered	Homework/ Quizzes
8/18/15	Course Introduction/ Chapter 1	
8/20/15	Chapter 2: Basic Chemistry (2.1-2.3)	Learnsmart 1
8/25/15	Chapter 2: The molecules of life (2.4-2.8)	Learnsmart 2
8/27/15	Chapter 2: The chemistry of life	Online Quiz 1
9/01/15	Chapter 3: Cell structure and function	Learnsmart 3
9/03/15	Chapter 3: Cell organelles	Online Quiz 2
9/08/15	Chapter 4: Cell membranes	Learnsmart 4
9/10/15	Chapter 6: Metabolism: Energy and Enzymes	Class quiz 1
9/15/15	Lecture Review	Learnsmart 6
9/17/15	Exam 1 (Chapters 1,2, & 3)	Exam 1
9/22/15	Chapter 7: Cellular Respiration	Learnsmart 7
9/24/15	Chapter 25: DNA structure and replication	Online quiz 3
9/29/15	Chapter 25: Gene expression	Learnsmart 25
10/01/15	Chapter 5: Mitosis & Meiosis	Learnsmart 5, Online quiz 4
10/06/15	Lecture review	Class quiz 2
10/08/15	Fall Break: No Class	
10/13/15	Exam 2 (Chapters 7, 25, & 5)	Exam 2
10/15/15	Chapter 23: Patterns of Gene Inheritance	Learnsmart 23
10/20/15	Chapter 24: Chromosomal Inheritance	Learnsmart 24
10/22/15	Chapter 26: Biotechnology	Learnsmart 26 Online quiz 5

10/27/15	Chapter 11: Human Organization	Learnsmart 11
10/29/15	Chapter 12: The Cardiovascular System	Learnsmart 12
11/03/15	Chapter 12: The Cardiovascular System	Learnsmart 15 Online quiz 6
11/05/15	Chapter 15: The Respiratory System	Learnsmart 15
11/10/15	Lecture Review	In class quiz 3
11/12/15	Exam 3 (Chapters 23,24,26,11,12,14,15)	Exam 3
11/17/15	Chapter 14: The Digestive System	Learnsmart 14
11/19/15	Chapter 14: Digestion and Nutrition	Online quiz 7
11/24/15	Chapter 17: The Nervous System	Learnsmart 17
11/26/15	No class: Thanksgiving	
12/01/15	Chapter 19: The Musculoskeletal System	Learnsmart 19 Online quiz 8
12/03/15	Lecture Review	Class quiz 4
12/10/15	Cumulative Final Exam (1:30-3:30)	

* Instructor reserves the right to alter course schedule as the semester progresses. Students will be given advance notice (at least 1 week) of any change in dates of quizzes, homework assignments, or midterm exams.

Thank you for registering for Biology 123 at UNM-VC. I am very excited to be here to help you continue your education and achieve your goals.