BIOL 1140L: Biology for Health Sciences Lab

Spring 2026 Syllabus

Instructor	Dr. Kimberly Morrissey
Classroom	Arts and Sciences, Room 135
Class hours	Tuesdays 12:15-2:45
Office	Adjunct Faculty Offices
Office hours	Tuesdays and Thursdays 9:15-10:15, or by appointment.
Email	kmorrissey@salud.unm.edu

Course Description: This laboratory course for non-science majors compliments the concepts covered in the associated general biology lecture course. Students will learn quantitative skills involved in scientific measurement and data analysis. Students will also perform experiments related to topics such as biochemistry, cell structure and function, molecular biology, evolution, taxonomic classification and phylogeny, biodiversity, and ecology.

Student Learning Objectives: At the completion of this course students will be able to:

1. By the end of the course, students will be able to explain why evolution is the central paradigm of biology.
2. By the end of the course, students will be able to explain the nature and process of science and use it to critically evaluate scientific information and to develop a testable hypothesis to explain phenomena of the natural world.
3. By the end of the course, students will be able to analyze data, construct and interpret graphs.
4. By the end of the course, students will be able to explain the importance of water to life and apply basic chemistry to the biology of cells.
5. By the end of the course, students will be able to describe how the features of eukaryotic cellular structures and functions are related, including organelles, membranes, and the cytoskeleton.
6. By the end of the course, students will be able to use the laws of thermodynamics to explain energy transformation and describe the various metabolic energy-transformation pathways in eukaryotic cells.
7. By the end of the course, students will be able to explain the significance of meiosis, sexual reproduction, and the generation of genetic diversity and its relation to patterns of inheritance.
8. By the end of the course, students will be able to explain the goals and mechanisms of nuclear division by mitosis and its role in the cell cycle.
9. By the end of the course, students will be able to explain the structure and functions of DNA in cells and the mechanisms for replication and regulation of gene expression.

Course Webpage on canvasinfo.unm.edu (Canvas): Course information including this syllabus, labs, and grades will be available via canvasinfo.unm.edu. I will also send out emails to the class periodically. Students should check email at least every couple of days, especially the evening before class.

Attendance Policy: Attendance will be taken each class as per UNM-Valencia policy. Students risk being dropped by the instructor if they have more than four absences. It is the student's responsibility to drop the course if the student no longer wishes to attend or is unable to attend. Students are responsible for finding out what they missed in class. Class begins at 12:15pm. Do not be late for exams or quizzes. **You cannot makeup exams. Exception to the above with respect to assignments and quizzes:** Contact me if you have a valid excuse (illness, death in the family, car accident, etc.) to arrange a make-up quiz, but you will need to provide evidence (doctor's note, etc.). Busy traffic is not an excuse. It is my prerogative to decide whether an excuse is valid.

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, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been 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 on quizzes, tests or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; and misrepresenting academic or professional qualifications within or outside the University.

Electronic Device Usage: Cell phones will be silenced during class. No calling, talking, or texting during class. If you have an emergency call, take it outside the classroom please.

Student Behavior: Students will comport themselves as adults in an academic setting. Please do not engage in private conversations or act in an otherwise disruptive manner during class, or you will be asked to leave. If you need to ask the person next to you a question, make it short, do it quickly and quietly. I expect students to extend this courtesy to each other as well.
Students should bring notebook paper, either loose-leaf or spiral, and something to write with to class every day.

Lab Policies: No food or drink is allowed in the lab. No vaping or using tobacco products in lab. Students are responsible for cleaning up their areas by the end of class. If students leave a mess,

they will lose points from the lab. Keep in mind this is a lab and you may be handling things you don't want on your skin. Long pants, closed shoes, and long sleeves are recommended.

Students with Disabilities: If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that your accommodations are provided in a timely manner. If you require accommodations, please contact me as soon as practical. **Testing Center:** Use of the Testing Center will only be for those identified by Equal Access Services as requiring it, or for unusual circumstances as determined by me.

Title IX Statement. 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 p. 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:

	Points per Assignment	Total
Quizzes (4 of 5)	25	100
Assignments (12)	12.5	150
Midterm Practical Exam (1)	100	100
Final	150	150
Total		**500**

Grade	**From**	**To**
A+	98	100
A	90	97.99
B+	88	89.99
B	80	88.99
C+	78	79.99
C	70	77.99
D	60	60.99
F	0	59.99

Quizzes: Quizzes shouldn't take more than 20 minutes at the beginning of specific classes (see schedule below). The quizzes will cover material since the last quiz. There will be 5 quizzes, and the lowest grade will be dropped. The quizzes are worth 25 points each.

Assignments: Assignments will be sets of questions from the lab and are submitted in class. Make sure your name is on the assignment to receive credit. There are 12 assignments worth 12.5 points each.

Exams: There will be a midterm and a final exam. These exams will be practical exams. The students will answer questions at stations around the lab. Students will begin at specified stations with an answer sheet, they will have one minute to answer the question (fill in the blank), and then they will move all at once to their next station ("rotate"). After everyone has been to all the stations, the students will have the opportunity to go back to stations. There is no talking among students during practical exams. There will also be two essay questions after all students have finished with the stations.

Tentative Schedule Spring 2026

Date	Lab Exercise
1/20/2026	Course Introduction/ Scientific Method and epidemiology
1/27/2026	Data Collection and Graphing
2/03/2026	Aseptic Method
2/10/2026	Biological Molecules – **Quiz 1**
2/17/2026	Microscopy and Cell Biology
2/24/2026	Diffusion and Osmosis - **Quiz 2**
3/03/2026	Enzymes
3/10/2026	Midterm Practical Exam
3/17/2026	**Spring Break: No Class**
3/24/2026	Cellular Respiration I - **Quiz 3**
3/31/2026	Cellular Respiration II
4/07/2026	Genetics I – **Quiz 4**
4/14/2026	Genetics II
4/21/2026	Mitosis
4/28/2026	Makeup/Review Week – **Quiz 5**
5/05/2025	**Final Practical Exam**