BIOLOGY LAB FOR NON-MAJORS
Biology 1110L-552
Spring 2022

Syllabus

Instructor:	Dr. James Farslow
Classroom:	Online via Blackboard (learn.unm.edu) and lobomail. You must have a UNM net ID and access to a reliable internet service.
Class hours:	Asynchronous – At your convenience (explained below).
Office:	Online, via email (below), or Zoom
Office Hours:	Wednesday and Thursday, 4:00 to 5:00 pm, via Zoom. During the school week email me with questions or problems.
Email:	jfars@unm.edu (Best way to contact me during the school week. I do not usually respond to e-mail from Friday evening until Sunday evening.)

Course Description: This laboratory course for non-science majors compliments the concepts covered in the associated general biology lecture course. As this is an online course, we will not be conducting experiments at campus. Students will learn quantitative skills involved in scientific measurement and data analysis. Students will also view or perform experiments at home or virtually 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. Employ critical thinking skills to judge the validity of information from a scientific perspective.
2. Apply the scientific method to formulate questions and develop testable hypotheses.
3. Analyze information/data and draw conclusions.
4. Operate laboratory equipment correctly and safely to collect relevant and quality data.
5. Utilize mathematical techniques to evaluate and solve scientific problems.
6. Recognize biodiversity in different ecological habitats and communities of organisms.
7. Communicate effectively about scientific ideas and topics.

Text: None required. Material will be provided.

Computer Requirements: You will need to have access to a reliable internet service, preferably using a computer (Windows or Mac). My office hours will be conducted via Zoom on Wednesdays and Thursdays from 4:00 to 5:00 pm. I will email you with the meeting ID number at the beginning of the semester, which will remain the same for the rest of the semester. The rest of the week, email me with questions or problems. Be aware I do not usually respond to emails from Friday evening until Sunday evening.

Course Webpage on learn.unm.edu (Blackboard): Course information including this syllabus and grades will be available via learn.unm.edu. This course will appear in your Blackboard course listing. I will also send out emails to the class periodically. Students should check email at least every couple of days, if not every day.

Attendance Policy: As the class is asynchronous online, there is no attendance to be taken. However, assignments must be completed each week by Friday at midnight to be accepted. You have all week at your own convenience to read or watch the material and complete the assignment, so except for extreme circumstances, **there are no late assignments**. Quizzes and exams will be administered on Blackboard at specific times that will be posted in advance. It is the prerogative of the instructor to decide what is an extreme circumstance.

Academic dishonesty (from the UNM Catalog): "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."

Copying and pasting material from a webpage into your homework assignment is plagiarism. The same method you use to look up the information on the internet is probably the same method I will use to check if you copied it. All I need to do is Google your answer, and yes, I do check.

Also, if you work on homework assignments together, make sure the assignment is in your own words and with your own graphs. Don't just copy what your study partner wrote down. Both of you will lose points if you do this.

This also applies to anyone who allows someone to cheat off of them.

Student Behavior: All students will comport themselves as adults in an academic setting. On Zoom, be courteous and respectful. The same is true on the Discussion Board. Please read the Netiquette paper on the course materials page of Blackboard.

Labs: All labs will be one of the following: something you do virtually online, something you watch on a video, or something you do at home with common materials. When conducting an experiment at home, please be careful and use common sense. The experiments should be straightforward and simple. Basic rules of the lab should still be followed: do not ingest materials you use for the lab, and be careful about getting things on your skin or in your eyes.

Quizzes: Quizzes will be short assignments given periodically during the semester. They will be multiple choice and will be done on Blackboard. Quizzes will be administered on Friday of the week indicated in the class schedule (below). There are five quizzes worth 25 points each, and the lowest quiz grade will be dropped.

Assignments: Assignments will be sets of questions based on the lab and will be turned-in by midnight, Friday of that week. There are 13 assignments worth 10 points each.

Discussion Board: The Discussion Board is on Blackboard. There will be questions posted each week, and students will respond with at least three **substantive** sentences about the topic to receive full credit. Do not just respond "That's interesting" or "Okay". If there are two parts to the question, make sure to address both parts for full credit. These discussion responses will count as 10 points each toward the student's grade. Students **must** post their responses by midnight on Friday of that week for credit. Students are encouraged to respond to each other and discuss the week's topic. The discussion board will be asynchronous, meaning that you need to remember you are sending messages that people can respond to when they are able, not a real-time conversation. Students are expected to treat each other and opposing viewpoints with respect. **No trolling.** Students will adhere to the principles of Netiquette, which can be found on the course Blackboard site under Course Information. This should not, however, preclude students from disagreeing or correcting each other, but do it respectfully.

Exams: There will be a midterm and a final exam on Blackboard, each worth 100 points.

The requirements to complete the course are the same for all students, whether undergraduate or dual-credit.

Grading Breakdown:

Quizzes (4 best @ 25 points each)	100
Assignments (13 @ 10 points each)	130
Discussion Board (13 @ 10 points each)	130
Midterm Exam	100
Final Exam	100
Total points	560

Final grades will be awarded based on the percentage of points earned relative to total points. **Note:** Please do not think at the end of the semester that if you have a 60% going into the final exam, you only need to make an 80% on the final to pass the course. **This is incorrect.** Remember the final exam is only 100 points out of 560. If you have a 60% for the course going into the final, you will not be able to pass the course, even if you get a 100% on the final. If, on the other hand, you make 70% or higher on all coursework and exams through the semester (that includes the final), you will pass.

Grade	From	To
A+	98	100
A	93	97.99
A-	90	92.99
B+	88	89.99
B	83	87.99
B-	80	82.99
C+	78	79.99
C	70	77.99
D	60	69.99
F	0	59.99

Extra Credit: Students can earn an extra credit of up to 20 points once for the semester if they review a research paper from the primary scientific literature. It must be primary research, not a review or opinion article, and it must be from a peer reviewed journal. Your review should be about 1000 words (about two pages double spaced). Clearly spell out at the top of your review (i.e., in your title) the title of the paper and the authors names, as well as the name of the journal, and the issue and page number of the article. See me if you are interested in this for further details. I need to approve your article before you write the review.

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.

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 pg 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.

Course Outline

Week	Starting	Exercise	Quizzes
1	17-Jan	Introduction, Scientific Method, Metric Measurements	
2	24-Jan	Chemical Reactions	
3	31-Jan	Biological Molecules	Quiz 1
4	7-Feb	Cells and Microscopes	
5	14-Feb	Osmosis and Diffusion; Cellular Transport	Quiz 2
6	21-Feb	Cellular Respiration and Photosynthesis	
7	28-Feb	DNA Extraction and Fingerprinting - Virtual lab	Quiz 3
8	7-Mar	**Midterm Exam (Friday, 11 Mar)**	
9	14-Mar	**Spring Break**	
10	21-Mar	Mitosis	
11	28-Mar	Meiosis	
12	4-Apr	Genetics	Quiz 4
13	11-Apr	Natural Selection	
14	18-Apr	Process and Evidence of Evolution	
15	25-Apr	Biodiversity	Quiz 5
16	2-May	**Final Exam (Friday, 6 May)**	

** Instructor reserves the right to make required changes during the course.