

Biology 1110 Spring 2023 Syllabus



Course at a glance
Biology for non-majors, section 501
Mondays and Wednesdays, 12:00-1:15
Valencia Arts and Sciences room 140

Welcome to biology for non-majors! This class covers introductory concepts vital for understanding the living world around us including the scientific method, molecular and cellular processes, plant structure, reproduction and diversity, ecology and evolution.



Course Learning Objectives:

- 1.) Students will be able to explain the value of the scientific method as a means for understanding the natural world and for formulating testable predictions (Chapter 1).
- 2.) Students will be able to explain how chemical and physical properties apply to biological processes at the cellular level (Chapters 4,8,10,11)
- 3.) Students will demonstrate knowledge of basic concepts and mechanisms of cell biology (chapter 4).
- 4.) Students will demonstrate the understand that all organisms share properties of life as a consequence of their common ancestry (Chapter 25).
- 5.) Students will understand the fundamental processes of molecular biology (Chapter 3).
- 6.) Students will understand the mechanisms of evolution including natural selection, genetic drift, and mutations (chapters 18 & 20).
- 7.) Students will understand the methods of inferring phylogenetic relationships and the basis for biological classification (chapters 18 & 25).
- 8.) Students will recognize the value of biological diversity, conservation of species, and the complexity of ecosystems (Chapter 44).

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Drop in hours*:
Mondays: 10:30-12:00
Tuesdays 10:30-12:00
Wednesdays: 10:30-12:00
Thursdays: 12:00-1:30
*And really, anytime my door is open outside of these times.

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Course Webpage:

We will be using the new Canvas platform this year, canvas.unm.edu. This will largely serve as a repository for documents that will be handed out physically in class (the syllabus, homework assignments, class activities, etc.) Downloadable copies of the lecture slides will be available here as well. You will mostly be able to find these items in the 'files' tab of the course Canvas page.

Textbook:

Clark, M.A., J.C. Choi, & M. Douglas. *Biology 2e* (2020). Open Stax. **Recommended.** This is freely available as an ebook via the publisher website: openstax.org. You may also acquire a printed book for a charge, though that is optional.



Hi all,
Welcome to biology 1110! I am a molecular and evolutionary biologist, specializing in plant evolution and systematics. Currently, my research interests include systematics of Piñon pine in New Mexico as well as the microbial diversity in the Middle Rio Grande. When I am not working, I love music and running. I am excited to work with you all this spring!

Tips for Success in this Course:

- Make use of the class activities and exam study guides to prepare for quizzes & exams.
 - Complete homework assignments before the quiz and exam over that material.
 - Actively participate in your group.
- Communicate with instructor in the case of absence.



COVID-19 Health and Awareness: [COVID-19 Health and Awareness](#). UNM is a mask friendly, but not a mask required, community. To be registered or employed at UNM, Students, faculty, and staff must all meet UNM's [Administrative Mandate on Required COVID-19 vaccination](#). If you are experiencing COVID-19 symptoms, please do not come to class. If you have a positive COVID-19 test, please stay home for five days and isolate yourself from others, per the [Centers for Disease Control \(CDC\) guidelines](#). If you do need to stay home, please communicate with me so that I can work with you to provide alternatives for course participation and completion. UNM faculty and staff know that these are challenging times. Please let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. Please be aware that UNM will publish information on websites and email about any changes to our public health status and community response

Course Graded Assignments:

Homework: 2 Homework assignments per unit will be given. These will serve partly as unit summaries to prepare you for each chapter's quiz and exam as well as a chance to apply your knowledge to current events in science and biology. Each assignment will be worth 10 points. Each pair of assignments will be due the date of the quiz over that unit, where we will discuss as a class the material.

Quizzes: There will be 4 during the semester, each taking place on the class period before an exam. These quizzes will cover the same material as the following exam. They will be taken with your groups, with each group submitting one quiz. Each quiz will be worth 25 points, with your lowest quiz score being dropped.

Exams: 4 exams will be given. These will each be worth 75 points. Each exam will primarily cover material from the most recent unit of sections/chapters. The final exam of the semester will not be cumulative.

Class Participation: Class participation; both in whole-class discussions and group work are essential to this course. As such, 70 of your points possible in the course will come from class participation. These points will be allotted based on: Regular attendance, being engaged in classwork, actively taking notes in class, and completion of group activities.

Course Grading Policy: Your grade in this class will be made up of the following:

85 points: Class participation

300 points: Exams (4 exams @ 75 points each)

75 points: Quizzes (3 quizzes @ 25 points each)

10 points: Meet Ben Assignment

80 points: Homework

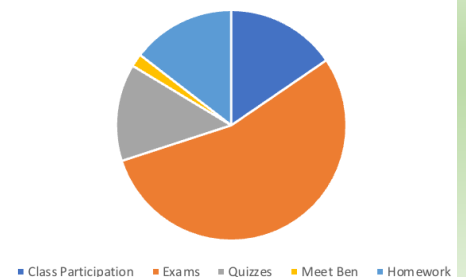
=550 total points possible

100%=A+, 92-99=A, 90-91=A-, 89=B+, 82-88=B, 80-81=B-, 79=C+, 72-78=C, 70-71=C-, 69=D+, 62-68=D, 60-61=D-, <60=F.

Title IX: Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus. Please note that, because UNM faculty, TAs, and Gas are considered "responsible employees" by the Department of Education, any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct, please see: <https://policy.unm.edu/university-policies/2000/2740.html>.



Point Breakdown



Dates	Subjects covered	Homework/ Quizzes
1/16/23	No Class: Martin Luther King Jr. Day	
1/18/23	Course Introduction, Characteristics of life	Meet Ben
1/23/23	Scientific Method	Homework 1 & 2
1/25/23	Plant molecular biology- photosynthesis	
1/30/23	Plant molecular biology- nitrogen and proteins	
2/01/23	Plant cells and organelles	
2/06/23	The Plant Body	
2/08/23	Exam 1 Review	Quiz 1
2/13/23	Exam 1	
2/15/23	Ecology and Ecosystems	Homework 3 & 4
2/20/23	Plants in their environment	
2/22/23	Evolution and Phylogeny	
2/27/23	Land Plant Evolution 1	
3/01/23	Land Plant Evolution 2	
3/06/23	Exam 2 Review	Quiz 2
3/08/23	Exam 2	
3/13/23	Spring Break: No Class	
3/15/23	Spring Break Woo!	
3/20/23	Cell Division	Homework 5 & 6
3/22/23	Sexual Reproduction and Life Cycles	
3/27/23	Flowers	
3/29/23	Seeds	

4/03/23	Fruits	Quiz 3
4/05/23	Exam 3 Review	
4/10/23	Exam 3	Homework 7 & 8
4/12/23	No Class	
4/17/23	Intraspecific Relationships	
4/19/23	Plant secondary compounds 1	
4/24/23	Plant secondary compounds 2	
4/26/23	Plant Pathogens	
5/01/23	Global Climate Change	Quiz 4
5/03/22	Exam 4 Review	
5/10/2023	Exam 4 (not cumulative)	