

Biology 1110 Fall 2023 Syllabus



Course at a glance

Biology for non-majors, section 501
Tuesdays and Thursdays, 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 (Unit 1).
- 2.) Students will be able to explain how chemical and physical properties apply to biological processes at the cellular level (Units 1 & 4)
- 3.) Students will demonstrate knowledge of basic concepts and mechanisms of cell biology (Units 1 & 2).
- 4.) Students will demonstrate the understand that all organisms share properties of life as a consequence of their common ancestry (Unit 3).
- 5.) Students will understand the fundamental processes of molecular biology (Units 1 & 4).
- 6.) Students will understand the mechanisms of evolution including natural selection, genetic drift and mutations (Unit 3).
- 7.) Students will understand the methods of inferring phylogenetic relationships and the basis for biological classification (Unit 3).
- 8.) Students will recognize the value of biological diversity, conservation of species, and the complexity of ecosystems (Units 2 & 3).

Instructor: Ben Flicker, Ph.D.

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Email is the best contact

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Drop in hours*:

Mondays: 10:30-12:00

Tuesdays 10:30-12:00

Wednesdays: 10:30-12:00

Thursdays: 10:30-12:00

*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 running and listening to the Grateful Dead. I am excited to work with you all this fall!

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: 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 via email (emailaddress@unm.edu) or Canvas course messaging; 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 us know that you need support so that we can connect you to the right resources and 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 biology. Each assignment will be worth 10 points. Each pair of assignments will be due the date of the exam over that unit.

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.

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>.



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)

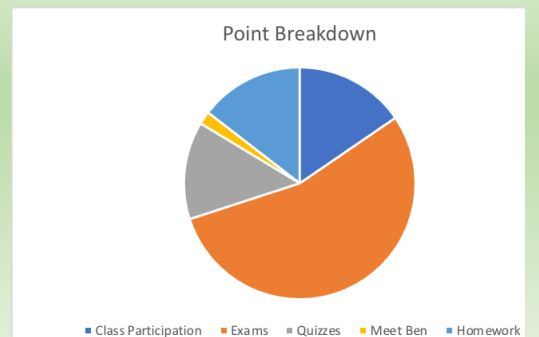
75 points: Quizzes (3 quizzes @ 25 points each)

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.



Dates	Subjects covered	Homework/ Quizzes
8/22/23 8/24/23	Course Introduction, Characteristics of Life Scientific Method	Meet Ben
8/29/23 8/31/23	Plant molecular biology- photosynthesis Plant molecular biology- growth	Homework 1
9/05/23 9/07/23	Plant Cells The Plant Body	Homework 2
9/12/23 9/14/23	Exam 1 Review Exam 1	Quiz 1
9/19/23 9/21/23 9/26/23 9/28/23	The plant life cycle Cell Division Flowers Seeds and Spores	Homework 3 Homework 4
10/03/23 10/05/23	Fruits Exam 2 Review	Quiz 2
10/10/23 10/12/23	Exam 2 Fall Break: No Class	
10/17/23 10/19/23	Ecology and Ecosystems Plants in their environment	Homework 5
10/24/23 10/26/23	Evolution and Phylogeny Land Plant Evolution 1	

10/31/23	Land Plant Evolution 2	Homework 6	
11/02/23	Plant Adaptations		
11/07/23	Exam 3 Review	Quiz 3	
11/09/23	Exam 3		
11/14/23	Relationships	Homework 7	
11/16/23	Pathogens and Illness		
11/21/23	Plant Primary Compounds	Homework 8	
11/23/23	No Class: Thanksgiving Holiday		
11/28/23	Plant secondary compounds		
11/30/23	Genetics I		
12/05/23	Genetics II		
12/07/23	Exam 4 Review		Quiz 4
12/12/2023	Exam 4 (not cumulative)		