Biology 2102 Spring 2025 Syllabus



Course at a glance

Organisms to Ecosystems, section 501 Tuesdays and Thursdays, 9:00-10:15 Valencia Arts and Sciences room 140

Welcome to Organisms to Ecosystems! This class covers basic evolutionary principles underlying the diversity of life on earth, the structural and physiological solutions to challenges of life, and the principles of population, community and ecosystem ecology.

Course Learning Objectives. By the end of the course students will be able to demonstrate a coherent understanding of:

1.) Evolution by natural selection and speciation (Unit 1).

2.) Phylogenetic trees that display species diversification through time (Unit 1).

3.) The organization of multicellular organisms from a structural, functional and evolutionary perspective (Units 3 & 4).

4.) How multicellular organisms obtain energy from their environment (Units 3 & 4).

5.) The variation in life cycles across multicellular organisms (Units 3 & 4).

6.) Evolution and diversification of single-celled and multicellular life from early Earth to the modern era (Units 2, 3 & 4).

7.) The hierarchical organization of ecology from organisms to the biosphere (Unit 5).

8.) The diversity and dynamics of species interactions and food webs (Unit 5).

9.) How abiotic factors influence t he diversity and distribution of biomes (Unit 5).



Instructor: Ben Flicker, Ph.D.

Office: HS 100B

Email: <u>benflicker@unm.edu</u> Email or Canvas mail are the best contact methods for me.

Drop in hours*: Mondays: 10:30-12:30 Tuesdays: By appointment Wednesdays: 10:30-12:30 Thursdays: 10:30-11:30 *And really, anytime my door is open outside of these times.

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Course Webpage:

We will be using the Canvas platform for our class: <u>canvas.unm.edu</u>. 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 be able to find these items in the 'files' tab of the course Canvas page.

Textbook:

Biology in Focus, Urry, L.A., M.L. Cain, S.A. Wasserman, P.V. Minorsky, R.B. Orr, and N.A. Campbell 2020. 3rd edition, Pearson Higher education.

CAMPBELL BIOLOGY IN FOCUS



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 exam over that material. -Actively participate in your group.

-Communicate with instructor in the case of absence.



Credit-hour statement: This is a three credit-hour course. Class meets for two 75 minute sessions of direct instruction for 15 weeks during the spring 2025 semester. Please plan for a *minimum* of six hours of out-of-class work (such as homework, study, and class preparation) each week.

Title IX: The University of New Mexico and its faculty are committed to supporting our students and providing an environment that is free of bias, discrimination, and harassment. The University's programs and activities, including the classroom, should always provide a space of mutual respect, kindness, and support without fear of harassment, violence, or discrimination. Discrimination on the basis of sex includes discrimination on the basis of assigned sex at birth, sex characteristics, pregnancy and pregnancy related conditions, sexual orientation and gender identity. (Continued on next page)

Course Graded Assignments:

Homework: Weekly homework assignments will be given. These will serve partly as unit summaries to prepare you for each unit's exam as well as introduction to the coming topic. The textbook will be required to complete most of these assignments. Each assignment will be worth 10 points. Each assignment will be given due the Tuesday following its assignment. Up to two late homework assignments will be accepted over the course of the semester and your lowest two homework grades will be dropped. These assignments will be handed out in class but will also be available electronically in the 'files' section of the class Canvas page.

Exams: 5 exams will be given. These will each be worth 75 points. Each exam will cover material from the most recent unit of sections/chapters. The final exam of the semester will not be cumulative. Optional review sessions will be held before each exam (times TBD).

Class Participation: Class participation; both in wholeclass discussions and group work are essential to this course. As such, 50 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: If you have encountered any form of discrimination on the basis of sex, including sexual harassment, sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. You can access the confidential resources available on campus at the LoboRESPECT Advocacy Center (https://loborespect.unm.edu), the Women's Resource Center (https://women.unm.edu), and the LGBTQ Resource Center (https://lgbtqrc.unm.edu). If you speak with an instructor (including a TA or a GA) regarding an incident connected to discrimination on the basis of sex, they must notify UNM's Title IX Coordinator that you shared an experience relating to Title IX, even if you ask the instructor not to disclose it. The Title IX Coordinator is available to assist you in understanding your options and in connecting you with all possible resources on and off campus. For more information on the campus policy regarding sexual misconduct and reporting, please see https://policy.unm.edu/universitypolicies/2000/2740.html and CEEO's website.

If you are pregnant or experiencing a pregnancyrelated condition, you may contact UNM's Office of Compliance, Ethics, and Equal Opportunity at <u>ceeo@unm.edu</u>. The CEEO staff will provide you with access to available resources and supportive measures and assist you in understanding your rights. Pregnancy and Parenting Support



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
1/21/25	Course Introduction, Chapter 19	Meet Ben
1/23/25	Chapter 20 part 1	
1/28/25	Chapter 20 part 2, Chapter 21	Homework 1
1/30/25	Chapter 22 part 1	
2/04/25	Chapter 22 part 2	Homework 2
2/06/25	Chapter 23	
2/11/25	Exam 1	Homework 3
2/13/25	Chapter 24 part 1	
2/18/25	Chapter 24 part 2	Homework 4
2/20/25	Chapter 25 part 1	
2/25/25	Chapter 25 part 2	Homework 5
2/2//25	Chapter 27	Llamanuark C
3/04/25	Exam 2	Homework 6
2/11/25	Chanter 28 part 1	Homework 7
3/13/25	Chapter 28 part 2	
3/18/25	Spring Break!	
3/20/25	No Class!	
3/25/25	Chapter 29	Homework 8
3/27/25	Chapter 30	
4/01/25	Chapter 31	Homework 9
4/03/25	Exam 3	

5/13/2024	Final Exam	Homework 15
5/08/25	Chapter 42	
5/06/25	Chapter 41 part 2	Homework 14
5/01/25	Chapter 41 part 1	
4/29/25	Chapter 40	Homework 13
4/24/25	Exam 4	
4/22/25	Chapter 36 part 2	Homework 12
4/17/25	Chapter 36 part 1	
4/15/25	Chapter 33 part 2	Homework 11
4/10/25	Chapter 33 part 1	
4/08/25	Chapter 32	Homework 10