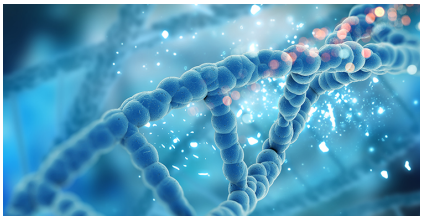
Biology 2101 Fall 2026 Syllabus

Course Information:
Principles of Biology: Molecules to Cells, section 501
Tuesdays and Thursdays, 1:30-2:45
Valencia Health Sciences room 101

Welcome to Principles of Biology: Molecules to Cells! This class covers introductory concepts vital for science majors as well as relevant topics to molecular and cellular biology including the chemical foundations of life, carbon and molecular diversity, structure and function of the cell, life cycles and cell division, introduction to metabolism, cellular respiration, photosynthesis, cell communication, gene structure and function, and principles and regulation of gene expression.



Instructor: Ben Flicker, Ph.D.

Office: HS 100B

Email: benflicker@unm.edu
Canvas mail is the best contact

Drop-in hours*:
Mondays: 11:00-12:00
Tuesdays 10:00-11:00**
Wednesdays: 11:00-12:00**
Thursdays: 12:00-1:00

*And whenever my door is open outside of these times. (Really, feel free. I get lonesome.)
**At PASOS

Course Learning Objectives:

1.) Students will demonstrate an understanding of atomic structure and bonding specific to elements found in living organisms (chapter 2).

2.) Students will show comprehension of the necessity and utility of carbon, water, and the common macromolecules to life (chapters 2 & 3).

3.) Students will demonstrate knowledge of cell structures including organelles, membranes, and cell-cell communication (chapters 4 & 5).

4.) Students will demonstrate an understanding of the cell cycle phases and processes of cell division (mitosis and meiosis) as well as the replication of DNA within these (chapters 9, 10, & 13).

5.) Students will be able to describe the flow of energy in cells through photosynthesis and cellular respiration (Chapters 6, 7, & 8).

6.) Students will show comprehension of genes, alleles, basic inheritance, as well as the processes of gene expression and its regulation (Chapters 11,12, & 13).

Table of Contents:

Learning Objectives.....1
Tips to Succeed in this course.....2
Course policies and assignments...3
Grading criteria.....3
Schedule with due dates.....4-5

Course Webpage:

We will be using the Canvas platform this year, canvas.unm.edu. There are a number of important elements that you will find on our course's Canvas page. These include links to the ebook (useful, but not required), weekly quizzes (required, graded) as well as the syllabus with schedule (including any updates). This will also serve as a repository for documents that will be delivered in class (the daily class activities, lecture slides, etc.). You will be able to find these items in the 'files' section of the course page.

Textbook (required):

Biology in Focus, Urry, L.A., M.L. Cain, S.A. Wasserman, P.V. Minorsky, R.B. Orr, and N.A. Campbell 2025. 4th edition, Pearson Higher education.

Tips for Success in this Course:

-**Read ahead!** Coming to class prepared for the coming topic is essential and has been shown to improve learning.
-Be an active communicator with your groups. You will be working with classmates on daily lecture assignments. Communicating with a diversity of people can help you see topics in new ways and improve your understanding of challenging topics.
-Utilize the class activities. These will complement the textbook, but not entirely overlap. Material from both sources will be present on quizzes and exams.
-Communicate with instructor in the case of absence.
-Be ready to have fun!



Welcome to biology 2101! 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 River and area hot springs. When I am not working, I love music and cooking. I am excited to work with you all this fall!

Connecting to Campus and Finding Support: UNM has many resources and centers to help you thrive, including opportunities to get involved in campus life, mental health resources, academic support such as tutoring, resource centers for people like you, free food at Valencia Campus Food Pantry, jobs on campus and financial capability support. Your advisor, staff at the resource centers and Academic Affairs Office, and I can help you find the right opportunities for you.

Wellness: If you do need to stay home due to illness or are experiencing a wellness challenge, please take advantage of the resources below. You can communicate with me at benflicker@unm.edu and I can work with you to provide alternatives for course participation and completion. Let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. UNM is a mask friendly, but not a mask required, community. If you are experiencing COVID-19 symptoms, please do not come to class.
TimelyCare: Free 24/7 virtual care services (medical, emotional support, health coaching, self-care, basic needs support).
LoboRESPECT Advocacy Center (505) 277-2911: help with contacting faculty and managing challenges that impact your UNM experience.

Course Graded Assignments:

Exams: Five exams will be given. The first four will be worth 75 points each. The final exam will be cumulative, comprised of new material covered since the fourth exam as well as all previous material. The final exam will be worth 100 points. A study guide will be provided the week before each exam and time will be given for review before each exam.

Quizzes: Quizzes will be given weekly. These will be available only on the course Canvas page. The quizzes will be 8-10 questions, mostly multiple choice. They will cover the most recent weeks' lecture material, as well as the reading material given to prepare for the next week's lectures. The quizzes will be timed (45 minutes), but not taken in a lock-down browser, so working together is allowed. However, there will be >10 possible questions on each quiz and they will be assigned randomly, so no two quizzes will likely be exactly the same. The quizzes will have firm due dates and missed quizzes will count as a '0' for that assessment. Your 3 lowest quiz grades (including any missed) will be dropped.

Class Participation: Group work and discussion are essential to this course. 50 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.

Homework Assignments: Each unit (set of topics before each exam) will have one or two homework assignments. These will vary in content and format and be worth 10 points each.

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.

Late work policy: Late work (homework, quizzes) is accepted with some limits. Turning in assignments the period after they are due is acceptable, however, frequent, repeated, and/or excessively late assignments will not be accepted without an advanced discussion with Ben. One missed quiz may be made up. Missed exams can be taken at the testing center if arranged with Ben.

50 points: In class activities/class participation

70 points: Quizzes (7 quizzes @ 10 points each)

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

100 points: Cumulative final exam

70 points: Homework assignments (7 @ 10 points each)

= 620 Total points

Dates	Subjects covered	Reading Concepts	Assignments Due
8/18/26	Course Introduction, Characteristics of Life		
8/20/26	Chapter 2: Atomic structure	Con. 2.1, 2.2	Reading Quiz (RQ) 1 Due 8/25
8/25/26	Chapter 2: Chemical Bonds	Con. 2.3	
8/27/26	Chapter 2: The Chemistry of Water	Con. 2.4, 2.5	RQ 2 Due 9/01
9/01/26	Chapter 3: Intro to Organic Molecules	Con. 3.1, 3.2	
9/03/26	Chapter 3: Carbohydrates and Nucleic acids	Con. 3.3, 3.6	RQ 3 Due 9/08
9/08/26	Chapter 3: Proteins and Lipids	Con. 3.4, 3.5	Homework 1 Due
9/10/26	Exam 1 Chapters 2 & 3		
9/15/26	Chapter 5: Lipids & Membrane structure	Con. 5.1, 5.2	
9/17/26	Chapter 5: Membrane structure & function	Con. 5.3-5.5	RQ 4 Due 9/22
9/22/26	Chapter 4: Passive and Active Transport	Con. 4.1, 4.2	
9/24/26	Chapter 4: Prokaryotic Cells	Con. 4.3-4.7	RQ 5 Due 9/29
9/29/26	Chapter 4: Eukaryotic Cells	Con. 5.6	
10/01/26	Chapter 5: Cell Communication		Homework 2 Due
10/06/26	Exam 2: Chapters 4, 5	Con. 13.1-13.3	
10/08/26	**Fall Break: No Class**		
10/13/26	Chapter 13: DNA Replication & the Cell cycle	Con. 13.2,	
10/15/26	Chapter 13: Cell cycle Controls and Cancer	13.3,9.1, 9.2 Con. 10.1-10.4	
10/20/26	Chapter 9 & 10: Mitosis & Meiosis	Con. 6.1-6.3	Reading Quiz 4 due
10/22/26	Chapter 9 & 10: Mitosis & Meiosis	Con. 6.4, 6.5	

10/27/26 10/29/26	Exam 3: Chapters 9, 10, 13 Chapter 6: Enzymes	Con. 7.1-7.4	Homework 3 due
11/03/26 11/05/26	Chapter 6: Cellular Energetics Chapter 7: Cellular respiration I	Con. 7.5	
11/10/26 11/12/26	Chapter 7: Cellular respiration II Chapter 8: Photosynthesis	Con. 8.1-8.3	
11/17/26 11/19/26	Exam 4: Chapters 6, 7 & 8 Chapter 11: Genetic Inheritance I	Con. 11.1-11.3	
11/24/26 11/26/26	Chapter 12: Genetic Inheritance II **Thanksgiving Holiday: No Class**	Con. 12.1-12.3 13.3, 14.3	
12/01/26 12/03/26	Chapter 13,14: Gene structure and Function Chapter 13,14: Gene structure and Function	Con. 13.3, 14.3-5	
12/10/2026	**Final Exam (Cumulative)**		