THE UNIVERSITY OF NEW MEXICO– VALENCIA COURSE SYLLABUS Biol 1140L Biology for Health Science Majors, Lab Summer 2025

General Information	Items		
Instructor Name:	Elisa DiMenna PhD		
Email:	edimenna@unm.edu Reach out to me anytime! 😥		
Office Location:	LRC 125		
Office Hours:	Tuesday from 130-245pm in the lab or After class in the		
	classroom		
Course Number:	BIOL 1140L		
Section Number:	501		
Semester & Year:	Summer 2025		
Credit Hours:	1		
Campus/Rooms:	VAAS-128		
Meeting Time:	Tuesday 10:30am -1:15pm		

Course Information

Catalog Description

Course Description This course is a laboratory that complements the concepts learned in the theory course. Students will learn skills involved in scientific measurement, microscopy, and mathematical analysis. Students will also perform experiments and data analysis related to cell structure and function, chemistry, enzyme activity, and genetics. Student

Learning Outcomes

The course objectives are designed to meet the New Mexico State Competency requirements. Upon successful completion of the course, you will be able to:

- 1. Explain the scientific method and use it develop and test a hypothesis.
- 2. Analyze and interpret graphical data.
- 3. Demonstrate use of laboratory equipment to perform scientific measurements
- 4. Demonstrate skills used in microscopy
- 5. Distinguish between eukaryotic and prokaryotic cells, including their structures and functions
- 6. Describe selective permeability of membranes and movement of water and molecules across membranes by diffusion and osmosis
- 7. Describe the structure and function of enzymes
- 8. Describe the structure of DNA and the flow of genetic material in a cell from DNA to RNA to proteins.
- 9. Describe the processes of mitosis and meiosis
- 10. Predict the inheritance of genetic traits

Course website

https://canvas.unm.edu/.

Textbooks, Course Materials, Technology:

Lab exercises and book provided by instructor.

OpenStax is a free option that covers the majority of the topics we cover nearly identically in terms of content. Also, again, it is FREE.

Grading Categories	Points per Assignment (Some exceptions/are indicated on assignment)	Total Points*
Practical -2	50	100
Quizzes -5	10	50
Lab Work/Book	10, 30	40
Total Points		190
Points dropped		10
point total for final grade		180

Instructor Specific Syllabus Information

Lab Policies

According to UNM regulations, all students attending a science laboratory course must fill out and sign off on a Laboratory Safety Contract at the first class meeting. Students must agree to follow OSHA, Federal Regulations of Waste Disposal, safe laboratory conduct and students are asked to submit emergency contact information as well as local hospital and physician preference. Failure to fill out, sign and return the Laboratory Safety Contract to the instructor will prohibit the student from attending lab.

Students who are late to lab or otherwise miss specific safety information, violate OSHA, Federal Regulations of Waste Disposal, safe laboratory conduct or are otherwise unable to fulfill safety requirements will not be allowed to remain in lab.

Persons not registered to the class will not be allowed in the classroom at anytime in the interest of safety.

Technology Recommendations and Requirements

To ensure the best possible learning experience, owning, or having reliable access to, a modern personal computer with virus protection is recommended.

Online courses perform optimally on high-speed internet, particularly with cable and DSL connections.

Some courses might require the need for a webcam, microphone, and internal and/or external computer speakers in order to participate in group discussions, create and upload video submissions, listen to live or pre-recorded lectures and videos, etc. Please check with your instructor to ask what type of technology might be necessary in order to be successful in the course. Technology

requirements may vary from class to class.

Visit the Canvas <u>browser and computer requirements page</u> and run their browser checker to make sure you are ready to go!

Other types of Technology Requirements to be a successful online student:

- A working black and white printer for assignments or a digital tablet, software and stylus for editing and saving a modified .pdf
- Ability to scan an upload paper documents as a .pdf (Dropbox and the Apple 'Files' app both have this ability)
- A color camera. Phone cameras and webcams are fine.
- Our class will specifically require the ability to convert and upload a printed or digitally downloaded document into a quality .pdf/photoshop document file. The quality of the document must be equivalent to the quality of the original document for grading purposes.
- You must have the ability to seamlessly run a Zoom based meeting with video and audio for scheduled class meetings.
- YouTube proficiency and ability to skip an ad or two.
- Reliable word processing software such as MS Word. UNM students can download MS Office 365 for free. <u>Details on what it is and who is eligible.</u>
- Please note that Mac Pages and Google doc files are not accepted for submitted assignments. Both programs have Export or Save as options that let you convert your work to .docx.
- Ability to view course materials by using Adobe Acrobat free file reader and MS Word.
- Regular and weekly access to UNM Canvas and your UNM email account.

• Possibly the ability to download and use <u>Kaltura Capture</u> or Adobe Premier Rush, Adobe's video editing tool. UNM students can download Adobe Premier Rush for free through <u>Adobe Creative</u> <u>Cloud</u>. Note: branch campus students should double-check to make sure your campus is participating.

Essential Skills

Activities will be incorporated into this course to support development of the following three essential skills that are required by NM/HED: *Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning*

Student progress in developing essential skills will be measured in assignments, discussions, and/or exams throughout the course.

What to Expect:

Our class is lecture and exercise based. All lectures are available on YouTube and I will present material as well in person. We will go over case studies and example problems with our discussions, in-person class time and independently online. Your ungraded practice items are available through the posted study guides, our textbook and Pearson site

This material will prepare you for your graded items: Quizzes, Case Studies and Exams. These items are broken down for points in the table below.

Attendance, Participation

a) Attendance: based on assignment completion. Students who fail to login at the beginning of the course may be dropped for non-attendance or non-participation. Students must demonstrate a record of course participation that is based on academically related activities in order to demonstrate "attendance" in the course. The minimum academically related activity for course participation which is here defined as timely completion of assignments by their due dates or responses requested by the instructor via email or in class.

b) Participation: based on assignment completion. Students' academically related activities will be tracked via methods that are described by the instructor in the course syllabus and schedule.

Spelling can affect your grade. If a word sounds about right and has the same number of syllables it will be counted as correct. However, be forewarned there are several words (e.g., perineal & peroneal) that look and sound similar. If you write the wrong word, it is wrong.

You should discuss any planned absences or problems regarding attendance with me. In addition, you should talk with me as soon as possible any time you miss more than one class or if you fail to complete assigned work.

Extra Credit

Extra credit is rarely offered since the equivalent of a quiz is automatically dropped.

PLAGIARISM --- if you copy an answer (75%+ word for word) from the book, internet, or my PowerPoint slides, you will get a **ZERO** on the ENTIRE assignment.

Other Requirements

- Students are responsible for all materials covered in class and in the reading assignments. Some book material that is not covered in class may still appear on examinations.
- Students are expected to do their readings before class.
- Students are expected to have watched relevant lecture material before class.
- Students may be expected to seek out information on web sites or other books to further their understanding of the material covered in class.
- Students themselves are responsible for seeking information on any assignments that may have been given out during their absence.
- This course requires proctored assessments.

Respondus lockdown browser

Assessments (see more below) may, per notification by the instructor, be completed in class using the Respondus lockdown browser. You will either need a laptop or an iPad to use this. More information about downloading and using Respondus can be found here: https://canvasinfo.unm.edu/external-apps/respondus-ldb-index.html

Dropping the Class

The Instructor will likely drop students for inactivity of 1 or more weeks or inappropriate/aggressive behavior toward the instructor or other students. However, students wishing to be dropped from the course should be aware that it is their responsibility to remove drop themselves from the course. Elective drops must be performed by the students and before the expiry of the institutional drop dates.

Due Dates

All homework, discussions and exams are due according to the posted schedule. Essentially, listed items are due by 11:59pm of the listed due date and week with the sole exception of the Final Exam which is Due by 11:59pm on the Thursday of finals week

Grading

Total Points refers to the total points capped. Some categories have a higher possible total points but points earned above the Total Points number cap are considered to be dropped items Extensions can be granted with documentation of an institutionally recognized cause, such as providing a doctor's note after an illness. Documentation is required in order to evidence that the instructor is providing equitable treatment for all students. If you miss an assignment or quiz, please note that I do drop between1 %-5% of the class points prior to the calculation of the overall course grade. There are no extensions or makeups since there are so many graded items in this course and there are multiple dropped items.

Quizzes: Quizzes are meant to help students review the material of the class while practicing the style of the upcoming proctored exams. They will typically be hands-on but may include written questions. Spelling counts. If a university level excuse is accepted for illness etc. they will be available temporarily in an online format and require Respondus Lockdown browser Closed Book/Notes.

Lab Work/Lab Book: Lab work/book is intended to be out of class homework exercises and will be assessed in packets either 1 or 2 times per semester. The instructor will inform students in class if they will be accepted in class physically or online as a pdf.

Case Studies: Depending on the semester, there will be case study discussions included for a grade. These may be in discussion form or may be required as part of a literature review/analysis.

Practical – CLOSED NOTES/BOOK AND PROCTORED

- The purpose of these exams is to evaluate where you are in understanding the details of the concepts in 2-5 chapters/units of the material. See grading table for a description of the how many there are.
- Exam questions are based on material presented in your Powerpoints, in-class or video lectures, class activities, and texts. You will be required to synthesize material from more than one source.
- Format: Generally hands on from materials used in class they include fill in the blank, manipulations, and often include objective, multiple choice, T/F, and matching questions.
- MAKE SURE the computer you use is reliable and the internet connection is reliable. If you fail to take the exam during that open window then you will get a 0 for the exam. There will be no makeups or extensions. University accepted excuses can be used to access an online alterative that same week.
- All exams are AUTOMATICALLY set to double time. This should automatically accommodate all students with accommodation letters.
- In the unlikely event that you will be using Respondus Lockdown Browser and Monitor. Both require a download of software and Monitor requires a webcam. See the Electronics requirements section of the syllabus for further details. Links to these will be located on online course shell as well
- Instructor will review the videos. All exams are closed books and closed notes.
- If something locks up during a canvas exam IMMEDIATELY email me so I can reset the exam for you before the testing window closes. DO NOT wait until the last minute to take the exam.

Student - Privacy and Rights

- For any interactive, web conferencing session that may be recorded, you may choose to not attend the live session and instead watch the recording at a later time, or you may choose to attend the live session with anonymity.
- To Protect your Privacy, be anonymous, during a virtual classroom session you may choose to:
 - \circ $\;$ Not use or display your name

- Not show video of yourself
- o Not use the audio option for speaking
- o Use the chat box to ask questions without showing your name

How to Contact Me

- EMAIL edimenna@unm.edu
 - Response Time is traditional business hours within 24-48 hours. On weekends or holidays leave up to additional 48 hours response.
- If you use your UNM email to contact me remind me exactly which class you are in. If I don't respond, contact me again! Non-UNM email accounts are often routed by the UNM servers into the junk email folders.

Online Etiquette

This course may require moderate online interaction. Students are required to treat other individuals with the same level of respect that they would in the live classroom. Do remember that there is a person at the other side of a discussion posting, online office hours, etc. when posting a response, question, or e-mail. In addition, you are responsible to make a sincere effort that all online postings, e-mails, etc. use the level of spelling and grammar and courteous tone that is expected in a professional college setting.

UNM Campus Open Computer Labs

Check website www.unm.edu for availability and hours.

Academic Honesty

Students should consult the UNM Student Handbook) for a complete explanation on Academic Dishonesty. Students who commit any form of academic dishonesty on an assignment may be assigned a grade <u>as severe as</u> a "0" or "F" for this assignment by the instructor, or will be informed by the instructor that the Dean of Students will be contacted to coordinate a more severe penalty for the offense (e.g. an "F" for the course, or removal from a program - in the case of limited entry programs such as exist in Health Occupations). In the latter case, a centralized record of the student's academic dishonesty incident will be maintained within the Dean of Students Office so that, if future incidents are reported, patterns of behavior can be identified and sanctioned more severely. Sanctions that may be imposed include disenrollment from the course, suspension from campus, expulsion from the institute, and other administrative actions.

The following are some forms of cheating Copying a fellow student's work or copying a previous student's work.

- The use of AI for assignment responses.
- Any form of communication with your neighbor during a test.
- Talking to anyone but the instructor or proctor during a quiz or examination.
- Communicating via cell phones with other people during a test.
- Notes or books open during in-class exams and quizzes.
- Disclosing or soliciting examination questions to those who may have been absent from an exam.
- Plagiarism (copying entirely or whole phrases from books or websites).
- Any two students handing in assignments with word-for-word responses.

Other Information

Policy for Cancellation of Classes

If there should be a cancellation of class due to inclement weather or disaster, check the local television news or radio stations. Most cancellation information is posted by 6AM and you will be emailed directly or announcements posted on our online classroom's announcements section.

In the event College closures or schedule changes occur during final exams, faculty whose exams, projects, or other graded work due dates are affected by a delay or closure follow the option adopted by their instructional division.

Options may include but are not limited to:

Exams or quizzes may be moved online, rescheduled or due dates extended depending on the college schedule change (ex. Going to remote learning for 2 weeks vs. a one-day snow closure would have different options used). As a last resort, grades going into an end of term closure will become the final grades.

Veterans and Active-Duty Military Personnel

Veterans and active-duty military personnel with special circumstances (e.g. upcoming deployments, drill requirements, disabilities) should communicate these, in advance, if possible, to the instructor. You can also learn about various military benefits on the <u>VA Education Benefits</u> website.

Federal and University Required Syllabus Information SYLLABUS INFORMATION *Required by Federal Law:*

Accommodations: UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact the UNM-Valencia Equal Access Services (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu. Or the UNM-Albuquerque Accessibility Resource Center (https://arc.unm.edu/) at arcsrvs@unm.edu or by phone at 505-277-350

Title IX: UAP 2720 and 2740. Our classroom and university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. If you ever need assistance or have concerns about incidents that violate this principle, please access campus support resources. These include confidential services at LoboRESPECT Advocacy Center, the Women's Resource Center, and the LGBTQ Resource Center. The University of New Mexico prohibits discrimination on the basis of sex (including gender, sex stereotyping, gender expression, and gender identity). UNM faculty and graduate teaching assistants are considered "responsible employees." "Responsible employees" must communicate reports of sexual harassment, sexual misconduct and sexual violence to Compliance, Ethics and Equal Opportunity. For more information on the campus policy regarding sexual misconduct, reporting, and reporting for "responsible employees," please see UAP 2720 and UAP 2740.

If you are pregnant or experiencing a pregnancy-related condition, you may contact UNM's Office of Compliance, Ethics, and Equal Opportunity at ceeo@unm.edu. 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 information is available here.

Student Support: **Confidential** services for students are available at <u>LoboRESPECT Advocacy Center</u>, <u>Women's Resource Center</u>, and the <u>LGBTQ Resource Center</u>. The <u>Women's Resource Center</u>

supports all students, including those who are pregnant or are parents. UNM's lactation stations are marked on the <u>UNM campus map</u>.

Mandated by University Accreditation (our hybrid section is a blend):

<u>Credit-hour statement</u>: This is a one credit-hour course. Class meets once per week for 2 hours and 45 minutes of direct instruction for fifteen weeks during the fall or spring semester. Please plan for a *minimum* of six to twelve hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

Student Support: Resources to support study skills and time management are available through <u>Student Learning Assistance</u> at the Center for Teaching and Learning in Zimmerman Library or online.

Land Acknowledgement: Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

<u>Citizenship and/or Immigration Status</u>: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: <u>http://undocumented.unm.edu/</u>.

<u>Responsible Learning and Academic Honesty</u>: Cheating and plagiarism (academic dishonesty) are often driven by lack of time, desperation, or lack of knowledge about how to identify a source. Communicate with me and ask for help, even at the last minute, rather than risking your academic career by committing academic dishonesty. Academic dishonesty involves presenting material as your own that has been generated on a website, in a publication, by an artificial intelligence algorithm (AI), by another person, or by otherwise breaking the rules of an assignment or exam. It is a <u>Student Code of Conduct</u> violation that can lead to a disciplinary procedure. When you use a resource (such as an AI, article, a friend's work, or a website) in work submitted for this class, document how you used it and distinguish between your original work and the material taken from the resource.

Student Support: Many students have found that time management workshops or work with peer tutors can help them meet their goals. These and other resources, including support on how to cite a source, are available through <u>Student Learning Assistance</u> at the Center for Teaching and Learning.

<u>Connecting to Campus and Finding Support</u>: UNM has many resources and centers to help you thrive, including <u>opportunities to get involved in campus life</u>, <u>research experiences</u>, <u>mental health resources</u>, <u>academic support such as tutoring</u>, <u>resource centers</u> for people like you, free food at <u>Lobo Food Pantry</u>, <u>jobs on campus</u> and <u>financial capability</u> support. Your advisor, staff at the <u>resource centers</u> and <u>Dean of Students</u>, and I can help you find the right opportunities for you.

<u>Wellness</u>: 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 [] 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.

Student Support: Student Health and Counseling (SHAC) at (505) 277-3136.

<u>TimelyCare</u>: Free 24/7 virtual care services (medical, emotional support, health coaching, self-care, basic needs support).

<u>LoboRESPECT Advocacy Center</u> (505) 277-2911: help with contacting faculty and managing challenges that impact your UNM experience.

<u>Respectful Conduct Expectations</u>: I am committed to building with you a positive classroom environment in which everyone can learn. I reserve the right to intervene and enforce standards of respectful behavior when classroom conduct is inconsistent with University expectations [and/or classroom community agreements]. Interventions and enforcement may include but are not limited to required meetings to discuss classroom expectations, written notification of expectations, and/or removal from a class meeting. Removal from a class meeting will result in an unexcused absence. [Insert number] or more unexcused absences may result in permanent removal and a drop from the course (see attendance policy). The University of New Mexico ensures freedom of academic inquiry, free expression and open debate, and a respectful campus through adherence to the following policies: <u>D75: Classroom Conduct</u>, <u>Student Code of Conduct</u>, <u>University Policy 2240 – Respectful</u> Campus, University Policy 2210 – Campus Violence.

Campus Safety: UNM maintains a Threat Assessment Team (TAT) comprised of qualified professionals trained in mental health, law enforcement, emergency response, and university resources and policy. The TAT convenes in a rapid response to address potential threats to the campus community and maintains communication with local and federal law enforcement, as well as the CARE team. In cases of emergency, call the UNM-Valencia Police Department (505) 925-8570 (phone number on the back of your Lobo ID) or your Health and Health Sciences or branch campus security. You may also call 911. Practice situational awareness: note the nearest building exit to your classroom and identify the nearest Automated External Defibrillator (AED) for use in an emergency by a trained individual. In an emergency, such as response to a fire alarm, you will be able to direct your students to the safest building exit and reassembly point. The interactive campus map visualizes building layout and adjacent spaces for all UNM campuses.

Biology for Health Sciences Lab (BIOL 1140 L) - Summer 2025 1140 L 10:30am -1:15pm Valencia - 31240 501 (UNM Valencia)

Week	Mon		
Week 1	Intro, Scientific Method,	Lab 1: Safety	Quiz 1 – Syllabus and
	Lab Safety, Scientific	Lab 2: Scientific Method, Metric	Lockdown Browser – 10pts
6/2/25-	Notation & Metrics,	and Scientific Notation	
6/8/25	Interpreting Graphs &		
	Data		
Week 2	Molecules of Life (Carbs,	Lab 3: Molecules of Life	Quiz 2- Intro, Scientific
	Lipids, Nucleic Acids,	Lab 4: Enzymes	Method, Lab Safety, Scientific
6/9/25-	Proteins), DNA Structure		Notation & Metrics, Interpreting
6/15/25	& Enzymes		Graphs & Data – 10pts

Week 3	Microscopes, Cell Diversity, Binary	Lab 5a and 5b: Microscopes Lab 6a: Microscopes -Remote	Quiz 3- Molecules of life, DNA, Enzymes – 10pts
6/16/25- 6/22/25		Lab 6b Transcription and Translation Worksheet -Remote	
Week 4 6/23/25- 6/29/25	Membranes, Diffusion and Osmosis, Cell Membranes	Lab 7: Diffusion and Osmosis	Quiz 4 – Microscopes, Cell Diversity, Binary Fission/asexual reproduction, Organelles,Transcription & Translation – 10pts Midterm Lab book - 10pts –
			Labs 1-6 due
Week 5 6/30/25- 7/6/25	Midterm Lab Practical		Midterm Lab Practical - 50pts Covers Labs 1-7
Week 6 7/7/25- 7/13/25	Intro to Genetics, DNA, RNA and DNA Replication	Lab 8: DNA (cont.) Lab 9: DNA, RNA and DNA Replication	No Quiz
Week 7 7/14/25- 7/20/25	Cell Division, Mitosis & Meiosis, Cell Cycle	Lab 10: Mitosis and Meiosis I Lab 11: Mitosis and Meiosis II	Quiz 4 - Intro to Genetics, DNA, RNA and DNA Replication – 10pts
Week 8 7/21/25- 7/27/25	Genetics	Lab 12: Human Genetics Lab 13: Mendelian Inheritance Evolution and Natural Selection Simulators in class – Bring your device for these games!	Quiz 5 - Cell Division, Mitosis & Meiosis, Cell Cycle – 10pts Lab Book Due <mark>:</mark> Turn in Labs 1-9- 30pts
Week 9 7/28/25- 7/29/25	Final Lab Practical – Semester closes Tuesday!!		Final Lab Practical – 50pts Comprehensive
		nd may be subject to abange by	190 pts total/ 10 pts dropped at end for missed assigns. =180 pts for final grade

This schedule is a guideline and may be subject to change by the instructor.
Labs and quizzes may be online due to shift from in-class meeting to online weeks. These changes may be short notice, please check the class website and your UNM email for updates the morning of class. than indicated.