

BIOL 1140L: 501-Biology for Health Sciences Lab

Fall 2022 • CRN # 64386 • 1 credit hr • Lab Syllabus



Face to Face

Lab: Mondays
10:30am-1:15pm
VAAS Rm. 135

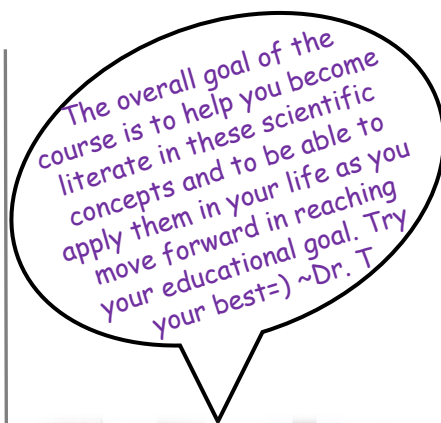


Course Description: This course is a laboratory that complements the concepts learned in the theory course. Students will learn skills involved in scientific measurement, microscopy, and mathematical analysis. Students will also perform experiments and data analysis related to cell structure and function, chemistry, enzyme activity, and genetics. *Credit is not applicable toward a biology major or minor.*

Student Learning Outcomes:

At the completion of this course, students will be able to:

1. Explain the scientific method and use it to 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 protein.
9. Describe the process of mitosis and meiosis.
10. Predict the inheritance of genetic traits.



Instructor:

Tammi R. Duncan, PhD

“Everyone tells you how they are going to be “special”, but few do the work to get there. Do the work.” -Mark Cuban-American Entrepreneur

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Dr. T's Contact Information

Email: tammid31@unm.edu
Office: 505.925.8726
Front office: 505. 925. 8600
Office: Rm 132, Arts
& Sciences Building



Talk to Me Hours

- Mon. 3:00pm-4:00pm
- Tues. 10:30am-12:30pm
- Wed. 3:00-4:00pm
- Thurs. 10:30am-12:30pm
- Fri. Available by appt.

Zoom meets: Available by appt.

<https://unm.zoom.us/j/5736149969>

Password: **biology**

Grading Criteria

~Develop good study habits. Don't wait until the last minute. Give yourself plenty of time to complete the assignments. -author unknown

Intro. to Online Quiz: You will complete by second week of classes in order to practice an online quiz submission.

Quizzes: 5 quizzes will be given throughout the term. These will be worth 25 points each. They will cover recent lab activities and be a mixture of practical and written elements. The lowest quiz grade will be dropped.

Exams: 2 practical exams will be administered during the term. They will be a mixture of both practical and written questions. Exam study guides will be provided for both. The final will not be cumulative.

Laboratory Policies:

1. No food or drink is allowed in the lab at any time.
2. No chewing gum in the lab.
3. Absolutely no horseplay will be tolerated.
4. Come on time and prepared for the lab activity and quiz for that day.
5. Treat all lab equipment carefully and with respect

Grading Criteria

	Points per assignment:	Total Points:	Percentage of overall grade:
Attendance/Participation (12)	1 pts	12 pts	~3%
Pre-lab questions (11 of 11)	3 pts	33 pts	~8%
Lab Exercises (10 of 10)	8 pts	80 pts	~19%
Online Quiz Practice (1)	5 pts	5 pts	~1%
Quizzes (4 of 5)	25 pts	100 pts	~23%
Midterm Exam	100 pts	100pt	~23%
Final (not Cumulative)	100 pts	100 pts	~23%
TOTAL		430 pts	100%

Course Grading Policy: Lab grades will be based on the percentage of points earned 100% or higher = A+, 99-91% = A, 90% = A-, 88-89% = B+, 87-81% = B, 80% = B-, 79-78% = C+, 77-71% = C, 70% = C-, 69-68% = D+, 67-61% = D, 60% = D-, < 60% = F.

Required Learning Resources

1. Course Book: There is **No** lab manual for this class. However, the labs you will be conducting will be provided to you in advance on the course webpage: **UNM Canvas** in the "lab exercises" section. It is **your responsibility** to print these labs out before class and have them ready at class time. You are **required** to do so for each lab (with the exception of the first lab and the exam weeks).

2. UNM Canvas: <http://canvas.unm.edu> The webpage contains resources you need to succeed in the course. Login using your UNM username and password. **You are responsible for all announcements, assignments, tests and/or any changes to the syllabus that will be posted on the webpage.** **Announcements are sent every Friday. Please check email regularly.**



canvas

3. Technology and computer: In this course, you will need a dependable computer, reliable internet connection, computer speakers, Microsoft PowerPoint and Word, and Adobe Flash Player.

Course Policies/Information

This is a 1 credit-hour Face to Face course. Class meets face to face for one 2hr-15 minute session of direct instruction for sixteen weeks during the Fall 2022 semester.

Attendance: Attendance is Required for all classes. Labs cannot be made up. Students may be dropped from the class after 3 absences.

Attendance will be taken via a daily sign-in sheet. Excessive tardiness (greater than 10 minutes) will be counted as an absence.

Make-up Exams. Make-up exams will be given to students with a documented emergency. You must notify the instructor prior to the day of the missed exam.

Talk-to-me Hours: I am available to help you succeed in the class; visit me in my Talk-to-Me hours that are listed under Instructor information.

Withdrawal: If you drop the course after the drop deadline, you will receive a grade of 'W'.

Missed quiz policy: Missed quizzes cannot be made up. Due to the practical nature of these, they can only be set up once.

Withdrawal. Last day to withdraw from class without a “W” on your transcript is **Sept. 9, 2022** at 5:00pm using UNM Canvas. Last day to withdraw from class with out Dean’s signature/permission on LoboWEB is **Nov. 11, 2022**. See <https://registrar.unm.edu/semester-deadline-dates/fall-2022.html> .

Cell phones. As a courtesy to the class, please silence any cell phones. Any sight of a cell phone during exams or quizzes will result in an automatic fail for that assignment. If you need a to step out during a test/quiz, please leave your phone on your table.

Disruptive behavior. Please avoid any disruptive behaviors in the classroom and online communications. For class, this includes going in and out of the class, texting, talking. For online communication and interactions follow netiquette.

Plagiarism. Only submit work that is yours. Always cite any work used using APA format. <https://libguides.unm.edu/c.php?g=326014&p=2187071> Copy and Paste from Google, your classmates, or your book is considered plagiarism. Write answers in your own words. *You will receive two warnings with the assignment given a zero. A third time you will be dropped from the course and the UNM Science & Wellness Department Chair notified.*

Course Policy/Information Continue

Accommodations: UNM-Valencia is committed to providing courses that are inclusive and accessible for all participants. As your instructor, it is my objective to facilitate an accessible classroom setting, in which students have full access and opportunity. If you are experiencing physical or academic barriers, or concerns related to mental health, physical health and/or COVID-19, please consult with me after class, via email tammid31@unm.edu or during talk-to-me hours. I am not legally permitted to inquire about the need for accommodations. We can meet your needs by collaborating with the Director of Student Affairs, Hank Vigil, by email [vigilh@unm.edu](mailto:viglih@unm.edu) or by phone (505) 925-8581.

Academic Dishonesty: Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. *Academic dishonesty includes, but not limited to, dishonesty in quizzes, tests, or assignments; Copying and pasting answers from Google; claiming credit for work not done or done by others, hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.*

COVID-19. You can prevent the spread of the Coronavirus to your family, fellow students, and your community.

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 at tammid31@unm.edu; 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.

Protocol as of 1/17/2022 for vaccinated individuals testing positive (No quarantine for exposure).

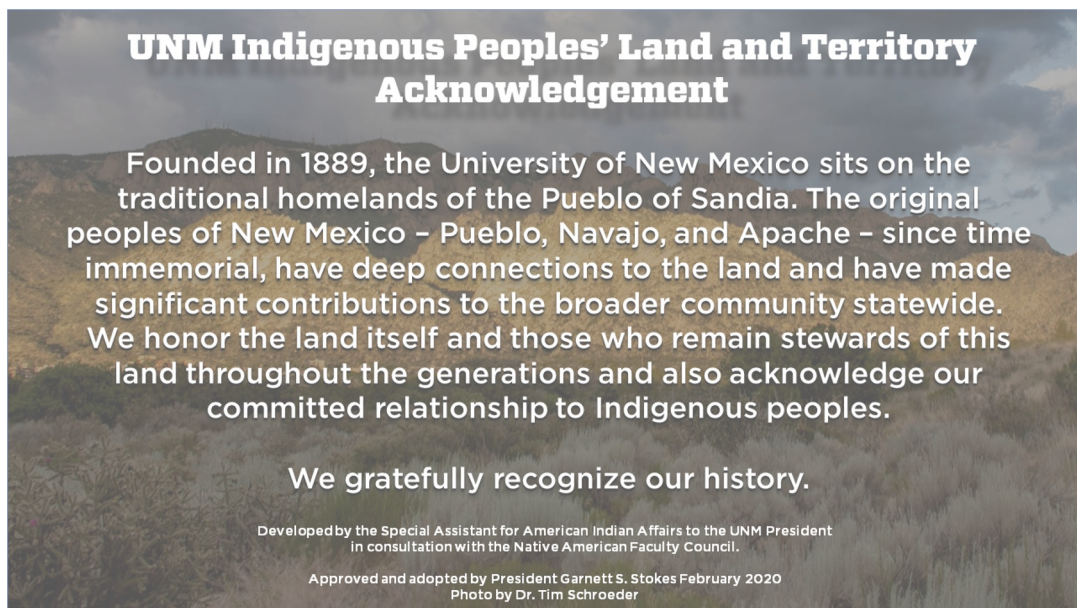
1. Upload your information to the Self-Reporting of Positive Covid-19 Diagnosis ([https://lobowebapp.unm.edu/apex_ods/f?p=135:LOGIN_DESKTOP:16863389260097:::~::](https://lobowebapp.unm.edu/apex_ods/f?p=135:LOGIN_DESKTOP:16863389260097:::)).
2. Provide documentation (The Covid PCR Test) to me via email (you are not exempt from assignments or exams).
3. Isolate for 5 days- Day 0 is the onset of symptoms or positive viral test (The Covid PCR Test).

Equal Opportunity and Non-discrimination In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see page 15--[offices/list/ocr/docs/qa-201404-title-ix.pdf](#)). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct, and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: <https://oeo.unm.edu/title-ix/index.html>

Citizenship and/or Immigration Status: 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. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. 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: <http://undocumented.unm.edu/>.

Respectful and Responsible Learning: We all have shared responsibility for ensuring that learning occurs safely and equitably. UNM has important policies to preserve and protect the academic community, especially policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<https://pathfinder.unm.edu>) and the *Faculty Handbook* (<https://handbook.unm.edu>). Please ask for help in understanding and avoiding plagiarism or academic dishonesty, which can both have very serious consequences.

Support in Receiving Help and in Doing What is Right: I encourage students to be familiar with services and policies that can help them navigate UNM successfully. Many services exist to help you succeed academically and to find your place at UNM, see students.unm.edu or ask me for information about the right resource center or person to contact. UNM has important policies to preserve and protect the academic community, especially policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<https://pathfinder.unm.edu>) and the *Faculty Handbook* (<https://handbook.unm.edu>). Please ask for help in understanding and avoiding plagiarism or academic dishonesty, which can both have very serious disciplinary consequences.



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Week	Mon:501 10:30am- 1:15pm	Lab Activity:	Quiz Topics
1	Aug. 22	Lab 1-Course Introduction/Graphing	
2	Aug. 29	Lab 2- Scientific Method/Epidemiology <i>Sept. 9 Last day to drop class without "W" with 100% tuition refund on LoboWeb.</i>	Online Quiz Practice
3	Sept. 5	No Class- Labor Day	
4	Sept. 12	Lab 3-Biological Molecules	Quiz 1 Scientific Data and Scientific Method
5	Sept. 19	Lab 4-Microscopy and Cell Biology	
6	Sept. 26	Lab 5-Diffusion and Osmosis	Quiz 2 Biological Molecules, Microscopy and Cell Biology
7	Oct. 3	Lab 6-Cellular Respiration I	
8	Oct. 10	Review Week	Quiz 3 Diffusion and Osmosis and Cellular Respiration I
9	Oct. 17	Midterm Practical Exam	
10	Oct. 24	Lab 7-Cellular Respiration II	
11	Oct. 31	Lab 8-Aseptic Technique/Bacterial Culture Collection	
12	Nov. 7	Lab 9-Genetics I- DNA Extraction <i>Nov. 11 Last day to drop class without Dean's Permission</i>	
13	Nov. 14	Lab 10-Genetics II-Polymerase Chain Reaction (PCR)	Quiz 4 Cellular Respiration I Aseptic Technique/Culturing Genetics I
14	Nov. 21	Lab 11-Mitosis	
15	Nov. 28	Review Week <i>Nov. 28 UNM Course Feedback open UNM Canvas</i>	Quiz 5 Genetics II Mitosis
16	Dec. 5	Final Practical Exam Topics from Midterm <i>Dec. 2 UNM Course Feedback close at 5pm</i>	

* I reserve the right to make necessary changes.