

UNM Valencia Campus

Semester: Fall

Year: 2020

CRN #: 64392 section 502

Credits: 1 credit hour

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.*

Instructor: Dr. Tammi Duncan

Instructor's Information:

Office: Rm 132, Arts & Sciences Building

Phone: 505.925.8726

Email: tammid31@unm.edu

Drop-in hours: Mon 3-4pm (F2F); Tues. 10am-2pm; Thurs. 10am-11am (F2F); Fri 8-10am (Online via zoom) or by appointment.

Aside from my office hours and immediately before and after class, email is the best way to contact me.

Student Learning Outcomes:

At the completions 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.

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: learn.unm.edu 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).

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.

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.

Accommodations: If you have a documented disability and you need a reasonable accommodation made for you in this course, please consult with me immediately or the campus tutoring center as soon as possible so we can meet your needs suitably and quickly.

Academic Dishonesty: Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. 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; 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.

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/ga-201404-title-ix.pdf](https://oeo.unm.edu/title-ix/index.html)). 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>

COVID-19

Respect the UNM Community by Preserving Health

You have the ability to prevent the spread of COVID-19 and to preserve the health of fellow students, your instructor, staff and the community by following UNM health protocols. The UNM Provost Administrative Directive on Mandatory Student Face Covering and Symptom Reporting of July 9, 2020 requires that all students on UNM-Main and UNM branch campuses wear face masks in the face-to-face classroom and on campus unless they have a specific mask accommodation (confidentially documented with the Accessibility Resource Center). UNM Provost Administrative Directive is consistent with Governor Lujan Grisham’s [Public Health Emergency Order](#) as amended, and the [Public Health Order of the New Mexico Health Secretary](#). It also requires daily participation in symptom screening through covidscreen, which will be sent via UNM e-mail.

Acceptable masks and mask wearing in class: A two-layer mask that covers the nose and mouth and that is cleaned regularly is acceptable. A face shield is not sufficient protection. It is vital that you wear your mask correctly, covering your nose and mouth. Removing your mask for an extended period to eat or drink in class violates the Provost Administrative Directive and endangers others.

Mask Wearing Accommodation: Individuals with a documented disability or diagnosis may seek accommodation with the UNM Accessibility Resource Center (ARC) (<https://arc.unm.edu/>). Individuals do not need to reveal private information to an instructor. ARC will require documentation of health requirements, which will be kept confidential. The instructor will be informed only of any need for accommodation.

Consequences of not wearing a mask properly: Unless you have an ARC-approved accommodation, if you don’t wear a mask, or if you do not wear a mask properly by covering your nose and mouth, you will be asked to leave class. If you fail to wear a mask properly on more than one occasion, you can expect to be dropped from the class. If you insist on remaining in the classroom while not wearing a mask (without an ARC-determined accommodation), class will be dismissed for the day to protect others and you will be dropped from the class immediately.

This class may move to remote delivery at any time to preserve the health and safety of the students, instructor and community. Please check [UNM Learn for updates](#) about our class and please check <https://bringbackthepack.unm.edu> regularly for general UNM updates.

Grading Criteria

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.

Course Webpage: The course webpage can be found by logging in to learn.unm.edu. There, I will post course documents like the syllabus, exam study guides, and other relevant course material. Any course announcements will be made on this webpage, so be sure to check it regularly.

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

	Points per assignment:	Total Points:	Percentage of overall grade:
Quizzes (4 of 5)	25 pts each	100 pts	25%
Midterm Practical Exam	100 pts	100 pts	25%
Lab Exercises (11)	8 pts each	88 pts	22%
Attendance	~1 pt per class	12 pts	3%
Final (not Cumulative)	100 pts	100 pts	25%
TOTAL		400 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.

Week	T:502 4:30-7:15 pm	Lab Activity
1	Aug. 18	No Lab
2	Aug. 25	Scientific Method/Epidemiology
3	Sept. 1	Biological Molecules
4	Sept. 8	Microscopy and Cell Biology Quiz 1
5	Sept. 15	Diffusion and Osmosis
6	Sept. 22	Enzymes I Quiz 2
7	Sept. 29	Enzymes II Quiz 3
8	Oct. 6	Midterm Practical Exam
9	Oct. 13	Mitosis
10	Oct. 20	Genetics I
11	Oct. 27	Genetics II Quiz 4
12	Nov. 3	Tuesday Break-No Class
13	Nov. 10	Cellular Respiration
14	Nov. 17	Fetal Pig Quiz 5
15	Nov. 24	Final Practical Exam

* I reserve the right to make necessary changes.