

# Biology 2305: Microbiology for Health Science Majors



## UNM Valencia Campus

**Semester:** Fall

**Year:** 2020

**CRN #:** 64996 Section 501. Mondays & Wednesdays 9:00-10:15

**Credits:** 4 credit hours

**Course Description:** This course is an introduction to microbiology for the Health Science major. It will focus on principles of infection and immunity.

**Instructor:** Dr. Ben Flicker

**Contact Information:** My office is HS 100B. My phone number on campus is 505-925-8726. My email address is [benflicker@unm.edu](mailto:benflicker@unm.edu). Email is the best way to contact me.

**Student Drop-In Hours:** I will be available to meet face-to-face in my office on Tuesdays 10:30-12:00 and Thursdays 12:00-1:30. During these times, I will also be available to meet remotely over Zoom. I will be available to meet exclusively over Zoom Mondays from 10:30-12:00 and Wednesdays from 12:00-1:30. To set up a Zoom meeting go to the link here (it will also be available on the course learn page): <https://calendly.com/benflicker/student-drop-in-hours?month=2020-08>

**Textbook: Lecture:** *Nester's Microbiology: A Human Perspective*. Anderson, Denise; S, Allen, D, Nester E. 2019. 9th Edition. McGraw Hill Education, New York, NY.

**UNM Learn:** Course materials will be posted on the course website (<https://learn.unm.edu>) This includes the syllabus, all assignments and announcements, discussion boards, quizzes and exams, Zoom meeting links, as well as links to email the instructor and other students in the course.

You are responsible for all such communication on the learn course page, so please check regularly.

### **Student Learning Objectives:**

- 1.) Students will be able to compare and contrast various microbes with regards to infections, treatment and control.
- 2.) Students will be able to perform basic microbiology lab skills.
- 3.) Students will be able to describe genetic principles of bacteria.
- 4.) Students will be able to apply the proper methods of microbial control necessary in sample scenarios.
- 5.) Students will be able to describe the role of the immune system in maintaining homeostasis and challenging infections.

**Attendance: Attendance is Required for all classes.** Students are responsible for getting information presented in any class missed. I understand that with all of the changes brought about by the current pandemic may make it difficult to attend all meetings. However, I will expect regular attendance and participation. Classes will be recorded and shared on the course Learn page, but please do not rely exclusively on this. You are expected to be regular participants in the class and group discussions which will occur in every class.

**Zoom Policy:** Online class meetings will be held via Zoom. Please make sure you have Zoom installed on your device and logged in, preferably with your UNM account. By default, when you join class meetings, your camera and microphone will be turned off. You are more than welcome to leave them that way, or to turn your camera on. I do request that you keep your microphone off unless you are actively speaking and contributing to the class or group discussion. This helps keep down potentially distracting background noise. All class meetings over Zoom will be recorded for later posting on Learn for playback. If you are uncomfortable with being recorded, please keep your camera turned off.

**Mental Health:** We are in an unprecedented time. We are dealing with changes to all facets of our life from the way we work, learn, and communicate. These changes can become stressful to the point of overwhelming. If these stresses catch up with you, and you need a day or four, to catch your breath in any way, just let me know. No assignment is worth overwhelming yourself. If you need an extension on anything, just let me know. Most due dates (with the exception of

the final exam) are flexible. In response to this situation, UNM has made the resources at the Student Health and Counseling available for all students. For more information on this, go to: [shac.unm.edu](http://shac.unm.edu)

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

**Title IX:** 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 pg 15 - <http://www2.ed.gov/about/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](http://Oeo.unm.edu)) For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.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/>.

**Students with disabilities:** Qualified Students with disabilities should see me or the campus testing center as soon as possible so we can meet your needs suitably and quickly.

**Homework:** Weekly homework will be given out to reinforce class topics and to prepare you for quizzes and exams. They will be assigned the day we finish a chapter/topic and be due the class period following their assignment.

**Extra Credit:** As part of the Student Experience Project, you will be asked to take five short surveys at various points in the semester. These surveys will take less than 10 minutes each and the results will be used to improve your experience as students at the University of New Mexico and my abilities as an

instructor. The answers you give to the survey will be anonymous, I will simply see whether you completed the survey, in order to give you extra credit points. After the surveys are complete I will see the averages of the survey responses. I value and appreciate your honest feedback.

**Class Participation:** Class participation; both in whole-class discussions and group work are essential to this course. As such, 100 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.

**Exams:** 4 exams will be given. The first 3 will be worth 100 points each. The final exam will be cumulative, comprised of new material covered since the third midterm as well as all previous material. The final exam will be worth 150 points.

**Quizzes:** 10 quizzes will be given during the semester. There will be one after each chapter we complete. They will be designed as exam prep, to prepare you for the types of questions on the forthcoming exams. These are worth 10 points each, with the lowest quiz score being dropped.

**Course Grading Policy:** Lecture 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

- 110 points: Homework assignments (11 assignments @ 10 points each)
- 100 points: In class activities/class participation/attendance
- 90 points: Quizzes (9 assignments @ 10 points each)
- 300 points: Exams (3 exams @ 100 points each)
- 150 points: Cumulative final exam
- 250 points: Lab Activities & Participation
- = 1000 Total points

<b>Week</b>	<b>Subjects covered</b>	<b>Homework/ Quizzes</b>
8/17/20	Course Introduction	
8/19/20	Microbe Diversity	Ch. 1 Hwk.
8/24/20	Chapter 3: Microscopy and Cell Structure	Ch. 3 Hwk.
8/26/20	Chapter 3 part 2	
8/31/20	Chapter 11: Diversity of Bacteria and Archaea	Ch. 3 Quiz
9/02/20	Chapter 11 part 2	Ch. 11 Hwk.
9/07/20	Labor Day: No Class	
9/09/20	Chapter 4: Dynamics of Microbial Growth	Ch. 11 Quiz
9/14/20	Chapter 4 part 2	Ch. 4 Hwk.
9/16/20	Exam Review	Ch. 4 Quiz
9/21/20	Exam 1	
9/23/20	Chapter 6: Microbial Metabolism	Ch. 6 Hwk.
9/28/20	Chapter 6 part 2	Ch. 6 Quiz
9/30/20	Chapter 7: Microbial Genetics	Ch. 7/8 Hwk.
10/05/20	Chapter 8: Microbial Genetics part 2	Ch. 7/8 Quiz
10/07/20	Fall Break: No Class	Ch. 5 Hwk.
10/12/20	Chapter 5 Control of Microbial Growth	
10/14/20	Chapter 5 part 2	
10/19/20	Exam Review	Ch. 5 Quiz
10/21/20	Exam 2	
10/26/20	Chapter 14: The Innate Immune Response	
10/28/20	Chapter 14 part 2	Ch. 14 Hwk.

4/06/20	Chapter 15: The Adaptive Immune Response	Ch. 14 Quiz
4/08/20	Chapter 15 part 2	Ch. 15 Hwk.
11/02/20	Chapter 16: Host-Microbe Interactions	Ch. 15 Quiz
11/04/20	Chapter 16 part 2	Ch. 16 Hwk.
11/09/20	Exam Review	Ch. 16 Quiz
11/11/20	Exam 3	
11/16/20	Chapter 10: Identifying and Classifying Microorganisms	Ch. 10 Hwk.
11/18/20	Chapter 10 part 2	
11/23/20	Chapter 13: Viruses, Viroids, and Prions	Ch. 10 Quiz
11/25/20	Lecture Review	
11/30/20	Review and catch-up week	
12/3/20	Cumulative final exam available	
12/10/20	<b>Cumulative Final Exam Due</b>	

Thank you for registering for Biology 2305c at UNM-VC. I am very excited to be here to help you continue your education and achieve your goals.