

Microorganisms and Disease – 2330 (Spring 2024) CRN # 20694

Physical Sciences (PSCI) 115 (3:00 pm to 4:20 pm MW)

Dr. Colin A. Bill (Dr. Bill or Prof. Bill)

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Office Hours: TR 1:00 pm to 2:00 pm

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COURSE OBJECTIVES: This course will provide an understanding of the following:

- Learn basic biology of microorganisms including bacteria, eukaryotic microbes and viruses.
- Understand basic structure and physiology of microbial cells including cell structure, cell membranes, metabolism and growth.
- Microorganisms important to humans with emphasis on pathogens.
- Understand the immune system and how humans deal with microorganism infections.

Textbook: Nester's Microbiology: A Human Perspective 10th Edition, 2021.

Please note that we will be using the 10th edition. Earlier editions will likely be cheaper, but they will also be missing information that you will need for the exams. You can get the 10th edition from the university bookstore. You might want to check prices at other sources e.g. Amazon that might be cheaper than the bookstore or purchase a PDF version, paperback, rent etc.

Course Requirements

The course will be via in person lectures. PowerPoints will be provided in Blackboard, which you can review to complement the lectures or as a substitute, if you miss a class. **I highly suggest that you study the PowerPoints well, if you want to get good scores on exams.**

It is very important that you check your UTEP email and Blackboard on a frequent basis. I will not accept excuses that you did not know something because you had not checked your emails/Blackboard/Syllabus and you missed an exam/Blackboard assignment. **If I need to deviate from the syllabus for some reason, I will let you know by email and update the syllabus.**

Contact Me: I will attempt to respond to your e-mails within a few hours of receipt. I will likely not respond to emails sent after 6 pm until the following day. **When contacting me, be sure to email from your UTEP student account.** In the body of your e-mail, clearly state your question. Please email me directly, DO NOT use Blackboard message system.

PLAGIARISM and USE of ARTIFICIAL INTELLIGENCE

You must submit work that you yourself have completed. Work you submit that was not directly written by you is considered cheating and will result in a 0 for the assignment. Persistent submission of work performed by someone/something else will be reported to the Office of Student Conduct and Conflict Resolution (OSCCR).

Use of AI technologies or automated tools, particularly generative AI such as [ChatGPT](#) or [DALL-E](#), is **not allowed** for assignments in this class. Each student is expected to use critical and creative thinking skills to complete tasks and not rely on computer-generated ideas. Any direct use of AI-generated materials submitted as your own work will be treated as plagiarism and reported to the OSCCR.

Assignments All assignments are due by Sunday at 11:59 pm Mountain time. I strongly suggest that you submit your work with plenty of time to spare, **if you have a technical issue with the course website, network, and/or your computer, I also suggest you save all your work (answers to weekly questions and Packback) in a separate Word document as a backup. This way, you will have evidence that you completed the work on time and will not lose credit.**

The course has **four main components**, which will be graded and add up to your final score that will be converted into a letter grade (see below).

1) Multiple Choice Exams (55% of total score)

The main component of your overall grade are multiple choice exams. Each exam will consist of 50 multiple choice questions and **MUST BE COMPLETED on the day/time specified IN THE CLASSROOM (PSCI 115)** using a laptop or iPad. **If you attempt to take any exams outside of the classroom, your score WILL NOT count and will be changed to zero.** If you do not have a suitable laptop, then you will either need to borrow somebody else's or borrow one from the library.

There will be **four regular exams throughout the semester followed by a comprehensive final exam** (total five exams). **I will drop your lowest exam score from the four regular exams. The final exam is compulsory and cannot be dropped.**

All multiple-choice exams will require use of Respondus Lockdown Browser, which can be downloaded from Blackboard (Open Blackboard and go to TOOLS). Please follow the instructions: https://www.utep.edu/technologysupport/Files/docs/MM_Respondus-Student.pdf Please note that you must use Respondus Lockdown Browser downloaded from UTEP, you CANNOT use another version e.g. from EPCC.

Make-up Policy: There are NO make-up exams. You are expected to take the exam on the specified date.

2) Packback Questions (15% of total score)

Packback Questions:

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online community where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications.

Packback Requirements:

Your participation on Packback will count toward 15% of your overall course grade.

There will be a Weekly Sunday at 11:59 pm Mountain Time deadline for submissions. To receive full credit, you should submit the following:

- **[Submit one question and two responses to complete each assignment]**

How to Register on Packback:

Open course in Blackboard, click on PackBack on the left grey area, open PackBack and follow the instructions. **PLEASE NOTE that for weekly PackBack submissions you should enter PackBack via Blackboard, DO NOT ENTER via the web page. Packback requires a paid subscription of \$39.** Refer to www.packback.co/product/pricing for more information.

How to Get Help from the Packback Team:

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co.

For a brief introduction to Packback Questions and why we are using it in class, watch this video:

<https://www.youtube.com/watch?v=OV7QmikrD68>

3) In-Class Questions (15% of total score)

Random **FIVE QUESTION** quizzes will be assigned during class time on material covered that day. Results will be collected using iClicker. **If you miss in-class questions there are no make-up quizzes.**

4) Weekly Question (15% of total score)

Every week, I will post a question that every student must respond to. You are expected to write at least one paragraph, more if you like, but do not contribute more than three paragraphs. Threads will be reviewed by my TA for content and given a maximum grade of 3. Minimal effort or answers off-topic will result in a score of 1 or 2. You will have until **Sunday at 11:59 pm to complete the question. You can change your response before the deadline, but the TA WILL ONLY GRADE YOUR FINAL RESPONSE, so make sure all your information is in your last submission.** Please note that failure to submit a response by Sunday night will result in a score of zero for that weekly question. **PLEASE DO NOT RESPOND TO OTHER STUDENT RESPONSES.**

Grading:

A grade = 80 to 100%

B grade = 70 to < 80%

C grade = 57 to < 70%

D grade = 50 to < 57%

F grade = < 50%

Grade Calculations:

Grade percentages that add up to your total score will be calculated as follows:

Multiple Choice Exams = 55% of final score

Packback = 15% of final score

In-class questions = 15% of final score

Weekly questions = 15% of final score

Your final percentage will be converted into a letter grade as listed under grading. Please note that **I do not** round up or down. This means that if your final cumulative score is 56.95% you will receive a D grade. **PLEASE NOTE THAT THERE IS NO EXTRA CREDIT.**

Census Day (last day to register for classes and pay without an authorized extension) is Wednesday January 31st.

Drop Policy:

March 28th (Thursday) IS THE LAST DAY STUDENTS MAY DROP THE CLASS WITH AN AUTOMATIC “W”.

UTEP regulations state: “Student-initiated drops are permitted after this date, but the student is not guaranteed a grade of W. The faculty member of record will issue a grade of either W or F”. It is my policy that students should decide to drop on or before March 28th and if they decide to drop after the deadline, they will be assigned a grade of F.

Incomplete Grade

All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by me, and the student. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam or project. If the student missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

Failure to Keep Up with Course Exams/Assignments

According to UTEP Curriculum and Classroom Policies, “When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with a grade of “W” before the course drop deadline and with a grade of “F” after the course drop deadline.” See academic regulations in the UTEP Undergraduate Catalog for a list of excused absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course. I will provide 24 hours advance notice via email.

Vacation Days

Please note that on the following days the university will be shut:
Spring Break – March 11th through March 15th.

Academic Integrity: UTEP policy on academic integrity can be found at:

<http://sa.utep.edu/osccr/academic-integrity/>. **ANY SUSPICIOUS ACTIVITY ON EXAMS OR**

ASSIGNMENTS WILL BE REPORTED to the Office of Student Conduct and Conflict Resolution (OSCCR).

Once I have reported incidents of alleged “Acts of scholastic dishonesty” they will be investigated independently by OSCCR who will either decide that there is insufficient evidence and dismiss the case or they agree that the evidence highly suggests the student was cheating then they will decide the punishment. Typically, the punishment results in a zero score for each exam that the student is cheating, which significantly impacts the grade.

No headphones/ear buds allowed during exams. This should be obvious, but you are not allowed to use anything that could potentially be used to cheat. Anybody who is seen to be using a device that could be used for cheating will be reported to OSCCR for investigation. There is a **zero tolerance**, which means that I will not warn you about being reported and it would be a pity to fail a class when you were just listening to music. If you use a prescription hearing aid then let me know ASAP, so that I can account for their use (I will request proof they are prescription hearing aids and a justification for their use in an exam).

The bottom line is DO NOT CHEAT. The consequences can be dire and potentially prevent you from reaching your career goals. If you are struggling in the class, let me know and we can talk about strategies to succeed.

Civility Statement: Please be respectful of all students' rights. Profanity or threatening language will result in immediate ejection from the session and possible disciplinary action that could lead to the student being removed from the course or in severe cases removed from the university.

Disability Statement: If you have a disability and need accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Course Schedule (Subject to change):

Date	Day	TOPIC
1/17	W	Syllabus/ Ch 2 The Molecules of Life
1/22	M	Ch 2 The Molecules of Life
1/24	W	Ch 3 Cells and Methods to Observe Them
1/29	M	Ch 3 Cells and Methods to Observe Them
1/31	W	Ch 4 Dynamics of Microbial Growth
2/05	M	Ch 4 Dynamics of Microbial Growth
2/07	W	Exam 1
2/12	M	Ch 5 Control of Microbial Growth
2/14	W	Ch 6 Microbial Metabolism: Fueling Cell Growth
2/19	M	Ch 6 Microbial Metabolism: Fueling Cell Growth
2/21	W	Ch 6 Microbial Metabolism: Fueling Cell Growth
2/26	M	Ch 8 Bacterial Genetics
2/28	W	Ch 8 Bacterial Genetics
3/04	M	Exam 2
3/06	W	Ch 11 The Diversity of Bacteria and Archaea
3/11	M	Spring Break
3/13	W	Spring Break
3/18	M	Ch 11 The Diversity of Bacteria and Archaea
3/20	W	Ch 12 The Eukaryotic Members of the Microbial World
3/25	M	Ch 12 The Eukaryotic Members of the Microbial World
3/27	W	Ch 13 Viruses, Viroids and Prions
4/01	M	Ch 13 Viruses, Viroids and Prions
4/03	W	Ch 14 The Innate Immune Response
4/08	M	Exam 3 (on Ch 11 and 12)
4/10	W	Ch 15 The Adaptive Immune Response
4/15	M	Ch 15 The Adaptive Immune Response
4/17	W	Exam 4 (on Ch 13, 14 and 15)
4/22	M	Ch 16 Host-Microbe Interactions
4/24	W	Ch 16 Host-Microbe Interactions
4/29	M	Ch 20 Antimicrobial Medications
5/01	W	Ch 20 Antimicrobial Medications

Final Exam – Monday May 6th, 1:00 pm – 3:45 pm