

# BIOL2460-001: Nursing Microbiology

---

**Instructor:** Whitney Tholen, PhD  
**Office:** LS 344  
**Email:** whitney.tholen@uta.edu

**Office Hours:** Tuesday & Wednesday 1:30 – 3:00 PM or **by appointment**.  
\*You can make an appointment by email but make sure to receive a response and confirmation.

**Course number, section, & title:** BIOL2460, Section 001, Nursing Microbiology  
**Course time & location:** Tuesday and Thursday 8:00–9:20 AM, Life Science 119

**Prerequisite:** BIOL 1345, BIOL 1441, or equivalent

## **Required Textbooks and Materials:**

**Lecture:** Microbiology, Parker et al., OpenStax Publishing  
Text ISBN: 1-938168-14-3  
e-Text ISBN: 1-947172-23-9

**Lab:** Microbial Laboratory Theory and Application, 4th Edition, by Leboffe and Pierce, Morton Publishing Company.  
Text ISBN: 1617314773

UTA Microbiology Lab Manual (\$20) and lab kits (\$20) can be purchased during the first week of lab which begins on Jan. 28th. Both can also be purchased in the Life Sciences Building Room 127 during the first two weeks of the semester from Mon-Thurs 10AM -3 PM or through the online store:  
<http://www.squareup.com/store/phi-sigma>  
Note: you must pick up your manuals in person in LS 127.

**Course Description:** The intention of this course is to present basic information, relevant to nursing practice, with the principles of microbiology and the nature of microbial disease. This course will give the nursing student a fundamental background of knowledge that will be applicable to the care of infectious patients, the control of microbial diseases, and an understanding of microorganisms. The laboratory component will provide practice in aseptic techniques, the use of disinfectants and antimicrobial agents, and microscopic study of bacteria. This course cannot be applied for credit toward a degree in Biology.

**Student Learning Outcomes:** Students will obtain a basic knowledge of general microbiology and its application in the medical field. Students will also understand many clinical aspects that microorganisms play in regards to medical microbiology.

In the lab component the student will gain an understanding of basic and fundamental microbiological techniques, such as aseptic technique, inoculation of organisms, transferring of organisms, and staining for microscopic analysis.

**Grading:** Exams will be composed of material from both the book and lectures. There is a large amount of reading required for this course, so it is important to keep up with reading assignments listed in this syllabus. It is highly recommended that students read the assignment before the lecture on that topic. Although effort will be made to adhere to the tentative exam schedule, exam dates may be shifted and students are required to be aware of any changes communicated by the professor. Your performance in this course will be assessed through four examinations. There will be four exams, each covering the subject material for that corresponding portion of the course. The first three exams will cover the subject material for that portion of the course (see tentative schedule of lectures). In the final (fourth) exam, approximately half will cover the material presented since the third exam and the rest will be comprehensive of the entire semester. You may not have any other personal belongings at your desk during an exam. You must also bring your student ID to all exams. You will not be allowed to take an exam if you do not comply.

- The format of exams may be multiple choice, true/false, and/or short essay questions.
- You are required to bring a #2 pencil, blue general purpose SCANTRON electronic grading form (No. 4521), and your UTA student ID to each exam.
- The final exam is scheduled for Tuesday, May 7<sup>th</sup> from 8am –10:30 am in the same classroom as regular lectures (Life Science 119) unless otherwise announced.

**Your final course grade will be calculated as follows:**

Exam 1	18%
Exam 2	20%
Exam 3	20%
Exam 4	22%
Lab	25%

**\*\*There is a Final Exam, but is optional. The final exam grade can be used to replace the lowest score from Exams 1-4.\*\***

The following grade scale will be used to determine final course grade:

A	90-100%
B	80-89
C	70-79
D	60-69
F	Less than 60

The grading scale is strictly enforced.

**Conflict Resolution:** If you are experiencing an issue in lab or class, you should first arrange a meeting with your instructor. If the issue is lab related, if after you have met with your instructor and the issue remains unresolved, you may then consult the Laboratory Coordinator (Dr. Whitney Tholen). If the issue still requires attention, you may then consult the Associate Chair of the Biology Department, Dr. Laura Mydlarz. To do this you can file a grievance at <https://www.uta.edu/php-lib/machform/view.php?id=3403>. You must file the form in order to have your issue heard. None of the listed personnel will discuss the issue with you until you have first consulted all of those preceding him/her.

**Attendance Policy:** The University does not require monitoring your attendance; each faculty member is free to establish course-specific policies on attendance. With the exceptions of exam dates, you are not required to attend lectures. However, it is highly recommended that you attend the lectures for this course. You are responsible for all material covered in the lectures and the textbook as well as any changes to the schedule.

**Expectations for Out-of-Class Study:** Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 12 hours per week of their own time in course-related activities, including reading required materials, preparing for exams, etc.

**Cell Phone Policy:** Cell phone ringers must be turned **OFF** during class time and no cell phones should be visible during class. If your phone rings during class, pick up your belongings and quietly leave the room. Do not return until the next class. This includes classes in which exams are being administered. If your phone disturbs anyone in the class and you are asked to leave, submit what you have completed and leave. You will be graded as if you submitted the exam complete.

**Make-up Exam Policy:** You are required to be present for all exams. You will be considered absent from an exam if you enter the room after one person has completed and submitted the exam. Whether or not an absence for an exam will be excused is at the discretion of the instructor. If seeking an excused absence, a 24-hour notice prior to the exam date and time is required. A written request by a physician or responsible professional or written proof of jury duty are examples of documents needed when seeking an excused absence. No exceptions. If you miss an exam, you will automatically be given an exam score of zero. Exams missed due to excused absence must be taken within one day of your return to class. No other make-up exams will be given.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. Last day to drop the class is March 29, 2019 at 4:00 pm. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://web.uta.edu/aao/fao/>).

**Disability Accommodations:** UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAA), and Section 504 of the Rehabilitation Act. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting: The Office for Students with Disabilities, (OSD) [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364. Counseling and Psychological Services, (CAPS) [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671.

**Title IX:** The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [www.uta.edu/eos](http://www.uta.edu/eos). For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*"I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code."*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Academic Dishonesty:** It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. According to the UT System Regents' Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>

**Lab Safety Training:** Students registered for this course must complete all required lab safety training prior to entering the lab and undertaking any activities. Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., through the following August) and must be completed anew in subsequent years. There are no exceptions to this University policy. Failure to complete the required training will preclude participation in any lab activities, including those for which a grade is assigned.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located at the most western end (the 1<sup>st</sup> floor) of Life Science. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities

**Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381

**Mandatory Online Safety Training:**

1. Go to <http://www.uta.edu/training>.
  2. Log on using your network log-on ID and password (what you use to access email). If you do not know your NetID or need to reset your password, visit <https://webapps.uta.edu/oit/selfservice/>
  3. The available courses for completion will be listed under "Training I'm Enrolled In". Complete the course entitled 'Student Lab Safety Training –General.'
- \*\*\*NOTE: If you completed Wet, Dry or Biology Lab Safety Training course last semester for another class, that training is still applicable until the end of this academic year. Please follow instructions in #4 to print the certification page for your TA.
4. Go to 'Training I've Completed' and print the displayed page for your TA. Verify that it shows clearly your name, and that 'General, Wet, Dry or Biology' training is completed/passed and the date when the training was completed. If you have just completed the training but it is not updated on the 'Training I've Completed' page, please log out of the system and log back in. If the training still does not show up on this page, call the Helpline at 817-272-5100.
  5. If you were enrolled in a course with a lab last semester and did not complete the training or if you do not see training for this academic year listed, email [compliance@uta.edu](mailto:compliance@uta.edu) providing your name, a contact phone number, NetID and course (e.g. BIOL 2460-005) and request the appropriate training for your course.
  6. Students who have not completed the training by census date may be dropped from the lab (and consequently the lecture).
  7. Lab Safety Training is required to be completed once every academic year. Training completed in the Fall semester is valid for the Fall, Spring and Summer sessions. It is your responsibility to print your training certification page and turn it in each semester to your TA for each course with a lab you are enrolled in. For training specific questions, contact the Environmental Health and Safety office at 817-272-2185. For technical assistance with the training, please contact the Office of Institutional Compliance at 817-272-5100 or [emailcompliance@uta.edu](mailto:emailcompliance@uta.edu)

## **Tentative Schedule of Lectures**

*\*This is only an outline only and is subject to change at instructor's discretion.\**

<b>Week</b>	<b>Topic</b>	<b>Reading Assignment</b>
Jan. 15 <sup>th</sup>	– Syllabus overview	NA
Jan. 17 <sup>th</sup>	– An Invisible World	Chapter 1
Jan. 22 <sup>nd</sup>	– How We See the Invisible World	Chapter 2
Jan. 24 <sup>th</sup>	– How We See the Invisible World	Chapter 2
Jan. 29 <sup>th</sup>	– The Cell	Chapter 3
Jan. 31 <sup>st</sup>	– The Cell	Chapter 3
Feb. 5 <sup>th</sup>	– Microbial Biochemistry	Chapter 7
Feb. 7 <sup>th</sup>	– Microbial Biochemistry	Chapter 7
Feb. 12 <sup>th</sup>	– <b>EXAM #1</b>	Ch. 1, 2, 3, 7
Feb. 14 <sup>th</sup>	– Prokaryotic Diversity	Chapter 4
Feb. 19 <sup>th</sup>	– Prokaryotic Diversity	Chapter 4
Feb. 21 <sup>st</sup>	– The Eukaryotes of Microbiology	Chapter 5
Feb. 26 <sup>th</sup>	– The Eukaryotes of Microbiology	Chapter 5
Feb. 28 <sup>th</sup>	– Acellular Pathogens	Chapter 6
Mar. 5 <sup>th</sup>	– Acellular Pathogens	Chapter 6
Mar. 7 <sup>th</sup>	– <b>EXAM #2</b>	Ch. 4, 5, 6



March 12 <sup>th</sup>	Spring Break	
March 14 <sup>th</sup>		
March 19 <sup>th</sup>	– Microbial Growth	Chapter 9
March 21 <sup>st</sup>	– Control of Microbial Growth	Chapter 13
March 26 <sup>th</sup>	– Antimicrobial Drugs	Chapter 14
March 28 <sup>th</sup>	– Antimicrobial Drugs	Chapter 14
April 2 <sup>nd</sup>	– <b>EXAM #3</b>	Ch. 9, 13, 14
April 4 <sup>th</sup>	– Microbial Mechanisms of Pathogenicity	Chapter 15
April 9 <sup>th</sup>	– Microbial Mechanisms of Pathogenicity	Chapter 15
April 11 <sup>th</sup>	– Disease and Epidemiology	Chapter 16
April 16 <sup>th</sup>	– Disease and Epidemiology	Chapter 16
April 18 <sup>th</sup>	– Innate Non-specific Host Defenses	Chapter 17
April 23 <sup>rd</sup>	– Innate Non-specific Host Defenses	Chapter 17
April 25 <sup>th</sup>	– Lab Analysis of the Immune Response	Chapter 20
April 30 <sup>th</sup>	– <b>EXAM #4</b>	Ch. 15, 16, 17, 20
May 2 <sup>nd</sup>	– No Class	N/A
May 7 <sup>th</sup>	– <b>COMPREHENSIVE FINAL EXAM (optional)</b>	All Chapters