

Biology 2460, Spring 2018  
**Nursing Microbiology**  
Section 500 Online  
January 15 - March 9

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This course is on Blackboard, not Epic. To access Blackboard: Go to <http://elearn.uta.edu> and log in with your NetID and password. To access course materials, click the **Course Materials** link on the left hand side menu.

**Course Prerequisites:** Biology 1441, Molecular and Cell Biology

**Course Description:** This course introduces nursing students to various themes in microbiology, emphasizing the interaction of microorganisms with humans and the diseases they cause. Topics include microscopy; survey of various microbes including microbial nutrition, growth, metabolism and genetics; infectious diseases affecting specific body systems; mechanisms of disease transmission and epidemiology. The course is complimented by a virtual laboratory component in which students acquire experience in aseptic techniques, the use of disinfectants and antimicrobial agents, microscopy, and staining techniques.

**Student Learning Outcomes:** Upon completion of the course students should be able to:

1. Describe and differentiate among the broad classes of microorganisms, including bacteria, protozoa, fungi, helminthes, and viruses.
2. Explain the metabolic processes necessary for microbe survival, focusing on the different methods of energy acquisition.
3. Describe ways microbes can cause infection and pathology in humans and apply this understanding to infection prevention and control in healthcare settings.
4. Identify strategies employed by antimicrobial drugs and how they specifically target certain pathogens and apply this understanding to antimicrobial treatment, drug resistance and interaction with host.
5. Demonstrate knowledge and skills in common laboratory procedures in microbiology.

**Required Materials for Lecture & Lab:**

1. *Microbiology Fundamentals, A Clinical Approach*, 2<sup>nd</sup> ed, by Cowan and Bunn

2. Access to Connect

3. Access to LearnSmart Labs

\*One access code for both.

You can purchase all of this in one package from the UTA bookstore, (**ISBN: 9781260085976**), which includes a textbook and one access code for both Connect and the LearnSmart Labs (\$197.50). You can also just buy the ebook with the access code for both Connect and the LearnSmart Labs (\$122.50). The website to purchase the access code with ebook or register your code is:

<http://connect.mheducation.com/class/l-frederick-biol-2460-500-spring-2018>

**COURSE SET UP:**

This course has a lecture and a lab component, the same if you enrolled on campus. All of your course materials, exams and assignments are in the Course Materials link on the left side menu in Blackboard. When you click Course Materials you will find eight units; each unit represents one week of the eight

week course. Click the heading Unit 1 and you will be brought to the introduction page. Click the heading Week1 Consists of the Following Tasks and Assignments and you will find the folders for each chapter from the textbook that will be covered in the lecture component of the course and the lab for that week. There is one lab each week. If you click the heading Chapter 1, you will find the powerpoint slides for chapter 1 and the homework assignment for chapter 1 (explained below). If you click the Lab 1 folder heading you will find all the material for lab 1, including a link to take you to the LearnSmart Lab simulation where you will conduct your virtual lab (explained below). I encourage you to spend some time navigating the course and becoming familiar with where materials are located.

### **MAXIMUM TIMEFRAME FOR RESPONDING TO STUDENT COMMUNICATION:**

- Response to student e-mails can be expected within 24 hours, with a 48 hour maximum time frame.
- Response to student assignments may be expected within 72 hours.

### **GRADING CONVENTIONS:**

**LECTURE:** The lecture section is worth 55% of the total grade and consists of 4 lecture exams and 16 LearnSmart assignments (one for each chapter).

**LAB:** The lab section is worth 45% of the total grade and consists of 8 lab assignments and 2 lab practicals.

Everything is worth 100 points and is weighted as follows:

#### **Grading Conventions**

4 Lecture Exams	40%
16 LearnSmart Assignments	15%
8 LearnSmart Lab Assignments	15%
2 Lab Practical	30%

You cannot simply add your points and divide by the total.
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#### **Grading Scale:**

Percentages	Grade
89.5 - 100	A
79.5 - 89.4	B
69.5 - 79.4	C
59.5 - 69.4	D
0 - 59.4	F

\*NOTE: Your total course score is a weighted percentage, therefore an 88% is NOT two points away from an A; it could be up to ten points away. Grades are pulled right out of Blackboard by MyMav; there is no way for the instructor to change your grade if you ask for a grade bump.

### **Exam, Quiz, & Lab Details**

All graded materials are due at the end of the specified week. **A "week" in this course begins on a Monday and ends on Sunday at 11:59 pm central time.** The course week schedule can be found on Blackboard under Assignment Schedule on the left side menu. Each module will specify which week the grades materials are due. Your coach will send you a reminder each week, but it is your responsibility to keep up with the work. **Note, the last week of the course is shortened. It is Monday - Friday; you do not have the weekend to complete your work.**

All materials are available on the start date of the course, you may work ahead as far as you like. You will be penalized if you turn in work late. Late work turned in 24 hrs past the due date will not be accepted.

**Lecture Exams:** There are four lecture exams. Each lecture exam covers four chapters in the text. All lecture exams are 50 multiple choice questions. You have **60 minutes** to take each exam. **Blackboard will automatically submit your answers when the allotted time has expired. There are NO make-up exams.** If you miss an exam, by failing to log on and complete the exam when it is available online, then you will receive a zero for the missed exam. This is a closed book exam and we will be using Lockdown Browser software (instructions below).

Exam 1: ch 1, 3, 4, 5   Exam 3: ch 10, 11, 16, 17  
Exam 2: ch 6, 7, 8, 9   Exam 4: ch 18, 19, 20, 21

We will cover 16 chapters in the text (see above). We will not cover chapter 2 and 15 in lecture (they are covered in lab). Chapters 12, 13, 14 and 22 will not be covered in this course.

**Lecture exams are located in:**

Module 1: Week 2 folder (exam 1: ch 1, 3, 4, 5)  
Module 2: Week 4 folder (exam 2: ch 6 - 9)  
Module 3: Week 6 folder (exam 3: ch 10, 11, 16, 17)  
Module 4: Week 8 folder (exam 4: ch 18 - 21)

**Lecture LearnSmart Assignments:** These are homework assignments for each chapter that we cover in the textbook; you have to complete two of these assignments each week. These assignments are not timed. This is actually a study tool for you. You will be given a series of questions that you work through answering. If you get them all right, this exercise should take about 20 - 30 minutes. If you miss a question, it is not counted wrong; rather you get another question on the topic until you get it right. *Therefore, the more questions you miss, the longer it takes to complete the assignment.* I encourage you to read the textbook chapter *before* completing the homework if you want to work efficiently, there are no short cuts here. When you miss a question, there is link to that section in the text where you can read the material so you get it right the second time.

If you experience a technical difficulty while working through the assignment, call **1-800-331-5094**. This is the Connect LearnSmart technical help support, Blackboard tech services cannot help you with these assignments. The LearnSmart tech team is available almost 24 hrs a day, so even if you are working late at night (early morning) you can call.

**There are NO make-up LearnSmart assignments.** If you miss an assignment, by failing to log on and complete the assignment when it is available online, then you will receive a zero for the missed assignment. If you attempt to do the LearnSmart assignment after the deadline, Connect does not save the score and it is not recorded. You need to ask me for an extension if you want to turn in work late and have the score record.

The LearnSmart assignments are in each week folder in the modules in Course Materials.

Module 1: Week 1 folder (LS 1, 3)	Week 2 folder (LS 4, 5)
Module 2: Week 3 folder (LS 6, 7)	Week 4 folder (LS 8, 9)
Module 3: Week 5 folder (LS 10, 11)	Week 6 folder (LS 16, 17)
Module 4: Week 7 folder (LS 18, 19)	Week 8 folder (LS 20, 21)

This is what the link that will take you to the assignment looks like, click the Chapter 1 heading.



## Chapter 1. Introduction to Microbes and Their Building Blocks

learnsmart

Due Date: October 23, 2016 11:59:00 PM CDT

If you have not registered in Connect yet, you will be asked to do so here. I email instructions on how to do this the week before the class begins, but you can also wait until you begin the course to do so. Detailed instructions are also available on the left side menu in Blackboard under the Instructions to Access Connect with LearnSmart Labs link.

Everyone needs to register their access code by going to this website (copy and paste into your browser): <http://connect.mheducation.com/connect/shortUrl.do?accessUrl=l-frederick-fall-2016-biol-2460-700>

**Laboratory Practicals:** There are 2 lab practicals, each covers four labs. All laboratory practicals are 40 multiple choice questions each. You have **50 minutes** to complete the lab practical. **Blackboard will automatically submit your answers when the allotted time has expired.** **There are NO make-up lab practicals.** If you miss a lab practical, by failing to log on and complete the practical when it is available online, then you will receive a zero for the missed practical.

Module 2: Week 4 folder: Lab Practical 1: Labs 1 - 4

Module 4: Week 8 folder: Lab Practical 2: Labs 5 - 8

This is a closed book exam and we will be using Lockdown Browser software (instructions below). I made a study guide for each lab practical that tells you exactly what to study (located in the same folder as the practical).

**Lab Assignments:** There are eight lab assignments, one is due each week. These assignments are not timed. Each lab is a laboratory simulation (LearnSmart Labs) where you will work through actual experiments. These take time; there are no short cuts and most labs will take several hours to complete. **DO NOT USE AN IPAD!** Ipad's are not compatible with this software. If you experience a technical difficulty while working through the assignment, call **1-800-331-5094**. Make sure Java and Shockwave are updated. Also, try using a different browser if you experience problems.

**There are NO make-up lab assignments.** If you miss a lab assignment, by failing to log on and complete the assignment when it is available online, then you will receive a zero for the missed assignment. If you attempt to do the LearnSmart Lab assignment after the deadline, Connect does not save the score and it is not recorded. You need to ask Dr. Frederick for an extension if you want to turn in work late and have the score record.

You will find the lab materials located in the lab folder in each week folder (Module 1: Week 1- Lab 1; Module 1: Week 2- Lab 2; Module 2: Week 3- Lab 3, etc...). When you click the lab folder you will find three links: **Lab Background** document, **Lab Outline & Instructions** document, and the link to take you to the lab simulation. Here is what the link to the lab simulation looks like, click the title Microscopy Microbiology.



## Microscopy Microbiology

LearnSmart Labs

Due Date: October 23, 2016 11:59:00 PM CDT

The **Lab Background** document gives you information you need to answer questions in the lab simulation, you need to read this *before* starting the lab simulation. Any questions you miss in the lab simulation is not counted against you, you will simply be given more questions until you master the concept, which will take more time. Be efficient and read the lab background material first. When you miss a question, you can click SLIDE on the right side of the screen which will provide you the information you need to answer the question right the second time.

The **Lab Outline & Instructions** document tells you what experiments you will doing in the lab simulation, with the approximate times it may take you to complete each section. Most of the labs take several hours to complete. **You do not have to complete a lab in one sitting, you can do a section at a time and your answers and progress will be saved.** The instructions give you a basic idea of what you have to do in the lab simulation, however these will be provided to you in the simulation at all times. At the bottom of the screen you will see an INSTRUCTIONS tab.

Here are the labs you will complete:

- |                       |   |
|-----------------------|---|
| 1. Microscopy         | 5. Environmental Preference for Microbial Growth      |
| 2. Aseptic Technique  | 6. Control of Microbe Growth                          |
| 3. Isolation Methods  | 7. Identification of Unknowns- Gram negative organism |
| 4. Staining Technique | 8. Identification of Unknowns- Gram positive organism |

**Grading Penalties for Lateness:** When taking lecture exams and lab practicals Blackboard will automatically submit your answers when the allotted time has expired. These times have been set at a pace that shows me you know the answer without looking up information in your book. If you cannot complete the assignments in this time frame, you do not know the material well enough.

Your calculated grade on course materials will be reduced by a penalty of **1 point per hour**, for every hour that you exceed the due date up to 24 hours. **After that 24 hours (Monday 11:59 pm central time), late work may not be submitted.** If you submit work a day late, that is a 24 point deduction. Remember, a "week" in this course begins on Monday and ends on Sunday at 11:59 pm central time. All materials for each week are due at the end of the week. The weekly schedule is listed under the Assignment Schedule tab in Blackboard on the left side menu.

**Check Your Answers:** Please check your answers before submitting your exam or practical. If you mistakenly select the wrong answer, you will NOT be awarded any points back. Blackboard CANNOT change your answers. If you think an answer changed, it was a human error not a technical one.

**Technical Difficulties:** It happens time to time that your internet connection disconnects or the power goes out or you double clicked in the testing environment, did not update JAVA and Blackboard shuts down. If this happens during a timed assignment, **LOG BACK IN IMMEDIATELY**; the **TIMER KEEPS RUNNING** even when you are logged out. The second you click on a timed assignment, the timer starts and does not stop until you hit submit.

**ACADEMIC INTEGRITY:** 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. "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." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

**Respondus Lockdown Browser:** Web cam not required. We are using the Respondus Lockdown Browser in this course for the four lecture exams and the two lab practicals. You must install this free software to gain access to these tests by going to this link:

<http://www.respondus.com/lockdown/download.php?id=163943837>

For problems and/or how-to questions, refer to the Respondus Support portal at:

<http://support.respondus.com>

To make sure the software is installed properly before you take your first exam, you need to take the syllabus quiz **located in course materials**. This is pass/fail and does not count towards your course grade. However, your failure to take the syllabus quiz and then possibly not be able to take your first exam on time because the Lockdown Browser isn't working is your own fault and late penalties will be applied. I highly recommend you get this taken care of the first week of the course.

**BLACKBOARD TECHNICAL ISSUES:** Because you have signed up for an online course, your internet service and connection are your responsibilities. Make sure you have updated, fast, reliable service. HAVE A BACKUP PLAN just in case you internet connection goes out. This has happened due to power outages and weather. Plan accordingly.

**It is your responsibility to go through the Student Resources and FAQ's on the menu to learn how to use Blackboard.** You are taking an online course; you must know how to use your platform! I expect you are responsible enough to do this on your own and will assume you have done so *before* your begin the course. Please do not email me with technical questions without trying to determine what you may have done first to receive an error message. You may call the help desk at any time and seek assistance: [helpdesk@uta.edu](mailto:helpdesk@uta.edu) or 817.272.2208. Make sure you have an updated version of Java; Blackboard requires Java to run. Do not double click in the testing environment. It slows Blackboard down.

If you do receive an error message while in the Blackboard testing environment, **log right back in and keep going. The TIMER DOES NOT STOP!!!** You should not receive any error messages if you follow the directions below and familiarize yourself with the testing environment. If you experience technical difficulties during an exam, it is best to log back in and keep going. **I cannot award points or let you retake exams or practicals due to your own technical difficulties.**

If you click on an assignment or an exam, you are going to open it and the clock will start! You will have to take it whether you are prepared or not. **Be careful that you are opening the correct exam or assignment!**

**Dropping the Course:** Please note that the **last day to withdraw from class with a "W" is February 19th**. Be aware that after this date you will receive an academic grade in the course. Initiating the drop procedure is the student's responsibility and must be done by contacting the student's academic advisor.

\*Note all material in BB is copyrighted through UTA. Selling any of these materials, including Dr. Frederick's notes, will subject an individual to copyright infringement and can result in both civil and criminal penalties.