

# BIOL 2420

## Microbiology for Non-Science Majors

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**Instructor: Dr. Emerson Crabill**

Email: [ecrabill@angelo.edu](mailto:ecrabill@angelo.edu)

Phone: 325-486-6642

Office: 003C CAV

**Office Hours: TBD or by appointment**

## Course Information

### Course Description

The study of infectious disease processes including host-microbe interactions and medical intervention. Laboratory includes basic microbiological methodology and case studies.

### Prerequisite and Co-requisite Courses

Recommended Prerequisites: Biology 2324/2124 or Health Science Professions 2302/2102

### Prerequisite Skills

Accessing Internet websites, including Blackboard and Tophat, and proficiency with Microsoft Word and/or PowerPoint.

### Student Learning Outcomes

Upon completion of this course, students will be able to:

- Demonstrate knowledge in discerning signs and symptoms of medically relevant infectious diseases in order to apply knowledge in clinical settings
- Understand infectious disease processes including pathogenesis, diagnosis, signs and symptoms, transmission, and treatment

- Demonstrate understanding of the methods of infectious transmission and the means by which these are controlled, including those related to nosocomial infections
- Demonstrate knowledge of the nature of antimicrobial resistance and to incorporate this knowledge within the context of providing appropriate healthcare
- Demonstrate knowledge in administering quality care in the context of safe handling of infectious materials/patients in order to minimize risk of transmission
- List outcomes here.

## Course Delivery

This is a face-to-face course with online components that students are expected to access in Blackboard.<sup>1</sup>

## Required Texts and Materials

Norman-McKay L. Microbiology : Basic and Clinical Principles. New York, NY: Pearson; 2019.

Microbiology Laboratory Theory & Application. Brief 3<sup>rd</sup> Edition. Leboffe and Pierce. Morton Publishing Customized for Angelo State University, 2021..

## Technology Requirements

To successfully complete this course, students need to purchase access to Top Hat. Lectures and daily assignments will be done through Top Hat. All lecture notes will be posted on Blackboard.

### Top Hat

*We will be using **Top Hat Pro** ([www.tophat.com](http://www.tophat.com)) for class participation. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Getting-Started-with-Top-Hat>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as provides a brief overview to get you up and running on the system.*

*An invitation will be sent to you by email. If you do not receive this email, you can register by simply visiting our course website:*

*Note: our course Join Code is 100779*

*Top Hat Pro may require a paid subscription, and a full breakdown of all subscription options available can be found here: [www.tophat.com/pricing](http://www.tophat.com/pricing).*

## Communication

The best way to contact me remotely is via e-mail. E-mails will be responded to in a timely manner (typically within 24 hours on weekdays), but do not expect an immediate response. You can also call me in my office.

You can contact me in person during office hours as posted, or you can schedule, via e-mail or phone, a specific time to meet.

## Grading

### Evaluation and Grades

Course grades will be determined as indicated in the table below.

<b>Assessment</b>	<b>Percent of Total Grade</b>
Exam I	100
Exam II	100
Exam III	100
Exam IV	100
Top Hat Questions	100
Lab Midterm	100
Lab Final	100
Lab Reports	100
<b>Total Points</b>	<b>800</b>

### Grading System

Course grades will depend on completing course requirements and meeting the student learning outcomes.

This course uses the following grading scale:

A = 720.00-800 points

B = 640.00-719.99 points

C = 560.00-639.99 points

D = 480.00-559.99 points

F = 0-479.99 points (Grades are not rounded up)

## Assignment and Activity Descriptions

For the lecture, all lectures notes will be on Top Hat and Blackboard. Top Hat questions will be during lectures. Exams will take place during the normal lecture time in the normal room.

For the labs, Lab Reports will be assigned for each lab they are worth 10 points each. Lab reports are due the next week in lab, unless your instructor gives a different due date. The lab midterm and final will be administered in lab class time.

## General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)<sup>2</sup>
- [Angelo State University Catalog](#)<sup>3</sup>

## Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).<sup>4</sup>

## Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at [ADA@angelo.edu](mailto:ADA@angelo.edu). For more information about the application process and requirements, visit the [Student Disability Services website](#).<sup>5</sup> The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
[dallas.swafford@angelo.edu](mailto:dallas.swafford@angelo.edu)  
Houston Harte University Center, Room 112

### **Incomplete Grade Policy**

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)<sup>6</sup> for more information.

### **Student Absence for Observance of Religious Holy Days**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 [Student Absence for Observance of Religious Holy Day](#)<sup>7</sup> for more information.

### **Title IX at Angelo State University**

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which

includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)<sup>8</sup>

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: [michelle.miller@angelo.edu](mailto:michelle.miller@angelo.edu)

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).<sup>9</sup>

## **Information About COVID-19**

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)<sup>10</sup> web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

## **Modifications to the Syllabus**

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances.

## **Course Schedule**

<b>Date</b>	<b>Lecture Topic</b>	<b>Lab Activities</b>
Aug 23-27	Chapters 1 and 2: Introduction and Biochemistry	<b>No Labs</b>
Aug 30-Sep 3	Chapters 3 and 4: Prokaryotic Cells and Eukaryotic Cells	Aseptic technique and Inoculation Methods
Sep 6-10	Labor day no lecture & Chapter 5: Genetics	<b>No Labs – Labor Day</b>
Sep 13-17	<b>EXAM I</b> (Monday) and Chapter 6: Viruses & Prions	Microscopy and Staining
Sep 20-24	Chapters 7 and 8: Microbial Growth and Metabolism	Gram Stain
Sep 27-Oct 1	Chapter 9: Infectious Disease	Selective Media
Oct 4-8	Chapter 10: Host Microbe Interactions and <b>EXAM II</b> (Friday)	Selective Media
Oct 11-15	Chapters 11 and 12: Innate Immunity and Adaptive Immunity	<b>Lab Midterm</b>
Oct 18-22	Chapters 13 and 14: Immune disorders and Vaccines	Standard Plate count
Oct 25-29	Chapter 15: Antimicrobial drugs	Differential Tests
Nov 1-5	<b>Exam III</b> (Monday) and Chapter 16 Respiratory Infections	Differential Tests
Nov 9 & 11	Chapter 17 Skin/Eye Infections	Antimicrobial Susceptibility
Nov 15-19	Chapters 18 and 19: Nervous system and Digestive System Infections	Epidemic Simulation
Nov 22	Chapter 20: Urinary Infections	<b>No Labs - Thanksgiving</b>
Nov 29-Dec 3	Chapter 21: Cardiovascular and Lymphatic infections	<b>Lab Final</b>
Dec 6	<b>Exam IV – 10:30 am</b>	

<sup>1</sup> <https://blackboard.angelo.edu/>

<sup>2</sup> <https://www.angelo.edu/current-students/student-handbook/>

<sup>3</sup> <https://www.angelo.edu/academics/catalog/>

<sup>4</sup> <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

<sup>5</sup> <https://www.angelo.edu/current-students/disability-services/>

<sup>6</sup> <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

<sup>7</sup> <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

<sup>8</sup> <https://www.angelo.edu/incident-form>

<sup>9</sup> <https://www.angelo.edu/title-ix>

<sup>10</sup> <https://www.angelo.edu/covid-19/>