



# NORTHWEST FLORIDA STATE COLLEGE

## Microbiology Allied Health, MCB 2010C, 4 credit hours

Summer 2016

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- Professor: Amy Hunt
- Office Hours: No formal office hours. Email or in-person after class/lab
- Phone: N/A
- Email: [hunta4@nwfsc.edu](mailto:hunta4@nwfsc.edu)
- Final Exam: **Comprehensive, Tuesday, August 9<sup>th</sup>, during normal class time**
- Web Page: <http://www.nwfsc.edu/faculty/profiles/hunt-amy/>
- Reference Number: 30295
- Campus/Room: Niceville/Building 350/Room S117
- Class Days: Tuesday/Thursday
- Class Times: 9:45 AM – 12:20 PM
- Electronic Resources: NWFSC email address, Desire2Learn (D2L), RaiderNet

### Course Description

MCB 2010C - Microbiology, Allied Health, 4 Credit Hours

This course is designed for students entering programs in the numerous health fields, but primarily for pre-nursing students. The material presented covers the fundamentals of microbiology needed to understand the biology of infectious diseases and the agents that cause them. Not recommended for biology, pre-med, pre-vet, and dentistry.

### Course Prerequisite

Prerequisite(s): CHM 1020 or CHM 1045C or BSC 1005 or BSC 1010C or BSC 1085C

### Course Materials

Required Materials: Microbiology: Principles and Explorations, 9th edition (Black and Black)

Techniques in Microbiology: A Student Handbook (Lammert)

MCB 2010C Microbiology Lab Exercises (Baker and Erickson)

Lab coat

Lab gloves (nitrile)

No. 2 pencil for assessments

Optional: Safety glasses, Sharpie marker

### Student Learning Outcomes

Demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.

Successfully recognize and comprehend fundamental concepts, principles, and processes about the natural world.

### Grading Procedures

There will be 5 lecture exams, 13 lab quizzes, 1 unknown bacterial identification lab, and 1 comprehensive final exam given during this course. Exams cover the material discussed during lecture and within the textbook; quizzes cover material related to the labs. The lab quizzes will cover the lab that is performed that day, i.e., understand the lab material before you perform the lab exercise. Required reading to prepare you for the lab quizzes is given in the schedule below. The date of each assessment is shown in the schedule below and is subject to change. You will be notified of any schedule changes.

All lecture exams are worth 100 points. The mandatory, comprehensive final exam is worth 200 points and will be given on **Tuesday, August 9<sup>th</sup>, during normal class time**. It will **NOT** be offered early. Any conflict with this day must be brought to the instructor's attention within the **first two weeks of class**. There are **NO** make-up exams, with the exception of official school-sponsored events or military deployment. You must discuss these types of absences with the instructor **BEFORE** the exam. Otherwise, your lowest exam grade (not the final) will be dropped. Total quiz grades will equal 120 points, with your lowest quiz grade dropped. There are **NO** make-up quizzes. Assessments will not be given ahead of the scheduled date.

No exams or quizzes will be handed out after the first student has completed and returned their assessment, this includes if you are late. If you are late to begin the assessment, you forfeit the amount of time missed. You are not allowed to leave the classroom during an assessment (use the restroom beforehand). There is a maximum time limit of one hour to complete the exam (except the final) and a maximum time limit of 15 minutes to complete the lab quizzes. It is expected that you remain quiet while assessments are being handed out, during the allotted time period to take the assessments, and after you have turned in your assessments. **If necessary, you will be asked to step out of the classroom or any disturbances will be considered cheating and will be dealt with as such.**

In addition to exams and quizzes, you will be graded on isolating and correctly identifying unknown bacteria using proper techniques you have learned throughout the course. This exercise is worth 100 points.

Your performance will be graded out of 820 points total. With the amount of graded assessments, you should have ample feedback regarding your performance in this course.

**Grading Scale: 90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; 0-59% = F**

### Withdrawal, Incomplete, and Failure-to-Attend Grades

Should a student wish to withdraw from the course, it is the student's responsibility to withdraw before the withdrawal deadline. Otherwise, the student will receive an "F."

At the discretion of the instructor, an incomplete grade ("I") may be awarded when the student is unable to finish the required work because of unforeseen extenuating circumstances, such as illness or TDY assignment. To receive an "I" grade, the student must have successfully completed a significant portion of the required coursework and be able to finish the remaining work without attending class. An "I" grade will automatically convert to a grade of "F" if the student does not complete the remainder of the coursework by the established deadline.

Both the F and FA (failure-to-attend) are failing grades, are calculated as such in the student's GPA, and show up on the student's transcript. A student's GPA and his or her time-to-degree are both factors in qualifying for future aid as outlined in the College's Standards of Satisfactory Academic Progress.

### Make-up Work

There are **NO** make-up exams or quizzes. If an official school-sponsored event or military deployment requires that you must miss an exam, you **must** notify the instructor **before** the exam.

### Classroom Conduct

It is expected that students act with professionalism and courtesy toward other students and the instructor. It is expected that you arrive to class on time and stay the duration of the lecture/lab. If you must leave early, it is appreciated that you let the instructor know ahead of time and do so quietly with minimal distraction to others.

No food or drinks are allowed in the classroom/lab **at any time**. This includes covered drinks and bottled water. Lab coats and gloves must be worn during lab sessions, shoes must be closed-toed, and long hair must be tied back.

### Class Attendance

Class attendance is an integral part of the learning process for this course. Students are expected to attend lecture/lab regularly. Students who stop attending class or are not able to pass the course due to attendance expectations stated in the syllabus may receive a failing grade of "FA." An "FA" grade is a failing grade in GPA calculations and may impact the receipt of federal aid in subsequent courses. Students traveling for college approved activities will not be penalized academically but will be responsible for missed work.

## Assignments

Week of	Tuesday		Thursday	
	Lecture	Lab	Lecture	Lab
16-May	Course Overview Chs. 1 & 9	Lab Safety* TM pp. 1-4 Lab Check-In	Ch. 2	General Techniques/Protocol* Transferring Bacteria/ <b>Lab Qz. 1</b> LE p. 3/TM pp. 23-26, 28-41
23-May	Ch. 6	Review Results Prepare Streak Plate I/ <b>Lab Qz. 2</b> LE pp. 4, 5/TM pp. 42-47	<b>Ex. 1 Chs. 1, 2, 6, 9</b>	Prepare a Streak Plate II LE p. 6/TM pp. 42-47
30-May	Ch. 3	Review Results Microscope Use/ <b>Lab Qz. 3</b> LE p. 7/TM pp. 74-80	Ch. 4	Variation in Bacterial Structures/ <b>Lab Qz. 4</b> LE pp. 8, 9
6-Jun	Ch. 5	Lecture Ch. 8 during lab	<b>Ex. 2 Chs. 3, 4, 5, 8</b>	Wet Mount/ <b>Lab Qz. 5</b> LE pp. 10-12
13-Jun	Ch. 10	Prepare Smear and Simple Stain/ <b>Lab Qz. 6</b> LE pp. 13, 14/TM pp. 87-93	Ch. 11	Prepare a Gram Stain/ <b>Lab Qz. 7</b> LE p. 15/TM pp. 87-91, 94-98
20-Jun	Ch. 12	Disinfectants/Antiseptics/ <b>Lab Qz. 8</b> LE pp. 22-24	Ch. 13	Review Results Kirby-Bauer Technique/ <b>Lab Qz. 9</b> LE pp. 25-29/TM pp. 206-212
27-Jun	<b>Ex. 3 Chs. 10, 11, 12, 13</b> Ch. 25 before lab	Review Results Environmental Isolation I/ <b>Lab Qz. 10</b> LE pp. 18-21	Ch. 14	Environmental Isolation II
4-Jul	Ch. 15	Environmental Isolation III	Ch. 16	Environmental Isolation IV
11-Jul	Ch. 17	Differential and Selective Media/Catalase and Urease Tests/ <b>Lab Qz. 11</b> LE pp. 30-34/TM pp. 150, 151, 159, 160, 170-173	<b>Ex. 4 Chs. 14, 15, 16, 17, 25</b>	Review Results Serial Dilutions*/ <b>Lab Qz. 12</b> Serial Dilutions PO
18-Jul	Chs. 18, 19	Review Results Unknowns I/ <b>Lab Qz. 13</b> LE pp. 35-43/Unknowns Grading Scheme PO	Chs. 20, 21	Unknowns II
25-Jul	Ch. 22	Unknowns III	Chs. 23, 24	Unknowns IV
1-Aug	<b>Ex. 5 Chs. 18-24</b>	Review Results	Course Review	Review Results Lab Check-Out
8-Aug	<b>Comprehensive Final Exam</b> <b>Tuesday, 8/9</b>			

Required lab reading listed as LE, TM, or PO

LE = Lab Exercises Manual (\*Not found in LE), TM = Techniques Manual, PO = Print-out

Quizzes for multi-part labs cover the entire lab, not just the first day. See pages listed for required reading.

Assessments are bolded.

## Important Dates

Drop/Add Ends – Monday, May 23<sup>rd</sup>

Last Day to Change to Audit or Withdraw with a Grade of “W” – Thursday, July 14<sup>th</sup>

Last Day of Class – Tuesday, August 9<sup>th</sup>

Final Exam – Comprehensive, Tuesday, August 9<sup>th</sup>

Final Grades Posted on RaiderNet – Wednesday, August 10<sup>th</sup>

## Cell Phone/Electronic Devices

Cell phones, pagers, and other such electronic devices must not distract from learning. Courtesy to the professor and other students requires that phones be on vibrate or silent mode and put away during class. No student should initiate conversations, including texts, during class activities. Use of electronic communication devices during examinations or other graded activities may constitute grounds for disciplinary action; such devices must be completely out of sight during exams or other assessments. Where emergency or employment situations *require* access to electronic communication services, arrangements may be made ***in advance*** with the instructor. **There is no academic need for cell phones during the lecture/lab. As such, these devices are expected to be put away during class time.**

## Emergency College Closure

In the event of unusual or extraordinary circumstances, the schedule, requirements, and procedures in this course are subject to change. If the college closes for inclement weather or other emergency, any exams, presentations, or assignments previously scheduled during the closure period will automatically be rescheduled for the first regular class meeting held once the college re-opens. If changes to graded activities are required, students will not be penalized as a result of the adjustments, but will be responsible for meeting revised deadlines and course requirements.

## Children in the Classroom

As a courtesy to other students and the learning process, students may not bring children with them to class sessions. Health and safety concerns prohibit children from accompanying adult students in any lab, shop, office, or classroom or other college facility where potential hazards exist. If a child-related emergency means you must miss class, contact the instructor as soon as possible to determine your options. (The full “Children on Campus” policy statement appears in the College Catalog.)

## Student Rights, Responsibilities, and Academic Integrity

Students are responsible for adherence to all college policies and procedures, including those related to academic freedom, cheating, classroom conduct, computer/network/e-mail use and other items included in the *Northwest Florida State College Catalog and Student Handbook*. Students should be familiar with the rights and responsibilities detailed in the current *Northwest Florida State College Catalog and Student Handbook*. Plagiarism, cheating, or any other form of academic dishonesty is a serious breach of

student responsibilities and may trigger consequences which range from a failing grade to formal disciplinary action.

### Other Important Notes

You are responsible for **all** material presented in lecture/lab and within the book(s)/PowerPoints. Any missed materials are your responsibility, i.e., the instructor will not hand out materials. It is **strongly** suggested that you read the chapter ahead of time. It is your responsibility to keep up with the content of this course.

All class communication will be conducted in class or via NWFSC email, except grades. Grades will **NOT** be given out via email – no exceptions. You can check your final grade through RaiderNet via NWFSC's webpage. Only NWFSC email accounts will be used.

Policies are subject to change. You will be notified of any changes.

## RESOURCES

[The Academic Success Center \(ASC\)](#) is located in the Activities Center on the Niceville Campus. The ASC provides free learning support services such as tutoring, ESOL, and writing assistance for all NWFSC students. Individual and group tutoring is available in a wide range of subjects on a walk-in-basis and by appointment. For more information, call the Academic Success Center at (850) 729-5389 or visit our website at [Free Tutoring](#).

[Reading to Learn \(R2L\)](#) is a project of Northwest Florida State College designed to support students' learning through direct instruction of reading strategies. Students may access R2L at our website: [Reading to Learn](#).

[Math Labs](#) are located in the Math Building L, Room L-131, on the Niceville Campus and in Building 7, Room 702 on the Fort Walton Beach Campus and Room 131 at the Crestview Center. The math labs are open to all students and provide free walk-in tutoring for all mathematics courses. For lab hours, students may call the Math Department at (850) 729-5377 or visit our website at [Math Lab](#).

[Smarthinking](#) is an online, real-time tutoring offered free to students, who may access this service via RaiderNet.

### Open Computer Labs

There are numerous open computer labs throughout the Northwest Florida State College campuses. Students may access our website for lab locations and hours: [Computer lab location and hours](#)

## Testing Center

Testing Centers administer college admissions tests, placement tests, proctored exams, ACT/SAT, GED, CLEP, and DSST (formerly known as DANTEs). General information concerning tests, hours

Testing Center hours may be accessed on the Testing Center website at [Testing Center](#). Makeup exams may be taken in the Testing Center, depending upon instructor policies on late work.

## Library, Online Reference Materials, and Resources

The library is a comprehensive, learning resource center providing information in print, digital, and multimedia formats to support the educational objectives of the College. In addition to in-house materials, online services and resources can be accessed through the LRC website. Library hours are posted each semester at the building entrance and on the LRC website at [Learning Resource Center](#)

## Assistance for Military and Veterans

Northwest Florida State College supports our military and veterans students. You may contact NWFSC Eglin AFB Education Services Building at 850-200-4180 or NWFSC Hurlburt Center Educational Services Building at 850-200-4190 or visit our website: [Support Our Military](#)

## Students with Disabilities

Northwest Florida State College supports an inclusive learning environment for all students. If you have disabilities for which accommodations may be appropriate to assist you in this class, please contact the Office of Disability Support Services on the Niceville Campus, or call 850-729-6079 (TDD 1-800-955-8771 or Voice 1-800-955-8770).