



Course Information

Course Number: MICRO 202
Course Title: Introductory Microbiology
Credit Hours: 3

Instructor Information

Instructor: Mrs. Allison Thomes
Phone: 701-356-2050
Email: athomes@west-fargo.k12.nd.us
Course Location: Class 218J, Lab 215J, Office 214J
Office Hours: Period 2A (10:25 – 11:55) & 3B (12:30 – 2:00)

Course Description

MICRO 202 is a university transferable introductory microbiology course that examines the characteristics and importance of microorganisms with emphasis on their identification, control and relationships to health and disease. Corequisite: MICR 202L.

Textbook and Required Materials

MICROBIOLOGY, AN INTRODUCTION 12th Ed. Tortora, Funke, and Case. Pearson Education. ISBN 13: 978-0-321-92915-0.

Learning Goals/Outcomes

Upon completion of this course, the student will be able to:

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1. Gain an appreciation of the diversity of microbes; in the context of this course, “microbes” include diverse organisms, e.g., viruses, bacteria, fungi, protists, and small worms
2. Describe the structure and function of microbes, as well as the growth, metabolism, and genetics of microbes
3. Understanding diagnostic tests and procedures used to identify microbes including gram staining and growth on a variety of types of media
4. Understanding the relationship between microbes, disease, and the disease process.
5. The role of microbes in microbial ecology.
6. Understand the roles of microbes in community health and how microbes are controlled.

Grading and Evaluation

- All exams and lab reports must be turned in or an incomplete will be received for the course.
 - Students must schedule make-up exams and labs with me in ADVANCE if an absence is known ahead of time. Credit will NOT be given for work and assessments missed due to unexcused absences.
- Late assignments will be accepted ONE day late for half credit. Late assignments submitted more than one day late will not be eligible for credit.

- Grades will be based on the following scale and weighted categories:

90-100% = A
80-89% = B
70-79% = C
60-69% = D
59%-0% = F

Daily work/Quizzes = 30%
Exams/Labs/Projects = 70%

Tie to Assessment Outcomes

Microbiology 202/202L support Liberal Arts assessment outcomes

ADA Statement

Any student who feels they may need an accommodation based on the impact of a disability should contact their instructor privately to discuss specific needs. Please contact the Accessibility Coordinator at NDSCS.Accessibility@ndscs.edu or by phone at 701-671-2623 as soon as possible in the semester to discuss possible accommodations.

Equal Opportunity Statement

North Dakota State College of Science is an equal opportunity employer and equal opportunity educator. NDSCS is fully committed to equal opportunity in employment decisions and educational programs and activities. All practices are in compliance with all applicable federal and state laws, for all individuals without regard to age, color, gender identity/expression, genetic information, marital status, national or ethnic origin, physical and mental ability status, public assistance status, race, religion, sex, sexual orientation, familial or parental status, status as a U.S. veteran/service member, or participation in lawful activity off the employer's premises during nonworking hours which is not in direct conflict with the essential business-related interests of the employer.

For more information, refer to the NDSCS College Catalog under *Non-Discrimination Statement and Equal Opportunity Policy*.

Academic Integrity

Acts of academic dishonesty, including but not limited to cheating, plagiarism, falsifying research data or results or assisting others to do the same will be cause for sanction up to and including reduction in grade, failure of course or removal from class. Repeat offenses may result in additional sanctions.

For more information, refer to the NDSCS College Catalog under *Academic and College Policies and Procedures*.

Copying from any source (classmates, textbooks, webpages, etc.) and passing it off as your own work is plagiarism and will not be tolerated.

The use of AI in place of your own writing will result in a zero.

Early Entry Course Withdrawal

Students who wish to drop a college course must contact the NDSCS Early Entry Program Coordinator at 701-671-2406. Notifying the high school of a drop/withdrawal **does not** withdraw the student from the NDSCS college class. If the student has not officially withdrawn from the college course, an "F" will be recorded on their permanent college transcript. View the current Refund Schedule at: [Refund Schedules for Early Entry \(Dual Credit\)](#).

Continuity of Instruction

NDSCS is committed to the continuity of instruction in the event of an emergency disruption that may result in the suspension of activities, including in-person classes at NDSCS. NDSCS is committed to preparing for any significant operational disruption or closure, which could result from flooding, weather, medical emergency, campus evacuation or other emergency.

An emergency closing of the College, campus closure, and/or suspension of in-person classes does not equate into a suspension of instruction. Faculty contract days remain in effect, though the means of instructional delivery may change.

All communications and updates are sent out in official College email and posted at NDSCS.edu

Land Acknowledgement Statement

NDSCS acknowledges that we occupy the sacred ancestral lands of the First Nations cultures of North Dakota. Without them, we would not have access to our gathering, dialogue, and learning spaces.

Course Expectations

- **Collaboration:**
 - **Be Scientists** (Ask questions, think critically, analyze, communicate, and listen)
 - **Be a collaborative teammate and lab partner.**
- **Respect**
 - **Be Respectful!** Respect others in the classroom through your words and actions; dress appropriately
 - **NO CELL PHONES ALLOWED IN CLASS.** These must be put away once the bell rings and cannot be taken out until bell rings (full District Policy is on School Website).
 - Hats must be removed during labs
 - Close-toed shoes **must** be worn during labs
 - No food allowed in class or lab
 - **Be Honest!** Use Academic integrity; use proper citations for ideas/words that are not your own **Refer to the student handbook for a thorough description and consequences of cheating.**
- **Responsibility**
 - **Be Present and Time!** This means in your seat and ready to learn when the bell rings.
 - **Be Prepared! Bring iPad/stylus charged every day; Complete homework assignments and come prepared to be an active, contributing member of the class.**

Course Outline:

- **Unit 1: The Microbial World**
 - Ubiquity of Microorganisms Intro Lab
 - Types of Microbes Microscope Lab
 - Streak Plate/Slant Lab Applying Aseptic Technique
- **Unit 2: Microbial Anatomy and Antibiotics**
 - Gram Stain Lab
 - Antibiotic Resistance Lab
- **Unit 3: Microbial Growth and Control**
 - Clostridium botulinum Case Study
 - Mystery Juice Lab
- **Unit 4: Microbial Metabolism**
 - Fermentation/Types of Media Labs (4 Types of Plate Media, 4 Types of Tube Media)
 - Microbial Unknown Lab (Formal Lab report required 10-15 pages minimum)
- **Unit 5: Microbial Genetics and Biotechnology**
 - Paper Plasmid Lab
 - pGLO Bacterial Transformation Lab
- **Unit 6: Viruses**
 - Tracking a Virus Simulation
- **Unit 7: Epidemiology**
 - “A Fatal Bite” Case Study
- **Unit 8: Innate and Adaptive Immunity**
 - Paper ELISA Labs: Antibody and Antigen Detection
 - ELISA Labs: Antibody and Antigen Detection

Exams:

Exam 1: Units 1-3, **Exam 2:** Units 4-5, **Exam 3:** Units 6-8

Developed/Revised:

8/19/2025