



BASIC COURSE INFORMATION

Course Prefix, Number, and Title:	BIOL 202-1 (08762)	Introductory Microbiology
Credits:	Unit Hours/Credits:	4 units/credits
	Classroom study hours (CS):	3 hours
	Laboratory/Clinical hours (L/C):	2 hours
Meeting Days and Times:	Tues. & Wed. Lecture 9:00 AM to 11:30 AM	MAFB Ed. Center.
	Monday LAB 9:00 AM to 12:40 PM	Moore Hall 318
Semester/Year:	Summer Semester 2021	
Course Dates in Campus Connection:	8-week (summer semester)	June 1, 2021 to July 29, 2021.
Mode of Delivery:	face-to-face	
Location:	Lecture: MAFB Education Center.	Minot Air Force Base.
	Lab: Cyril Moore Hall Room 318.	Minot State University.

INSTRUCTOR INFORMATION

Name(s) of Faculty Member(s):	Aaron L. Ament, M.Sc., M.D. (Instructor for Lecture) Jared Gladback (Instructor for Lab)	
Office Location & Office Hours:	Swain Hall Room 308. Minot State University. Office Hours: by appointment only.	
Contact Information:	Phone: (701) 240-3373	
	Email: aaron.ament@ndus.edu	
	Website: www.amentanatomy.com	

ADDITIONAL COURSE INFORMATION

Course Catalog Description:	A survey of microbial cell biology, microbial genetics, the impact of microorganisms on the environment, and microbial interactions with humans; emphasizing human infectious disease.
Placement Policies:	None.
Prerequisite/Co-requisite Courses:	None.
General Education Category (or Categories):	BIOL 202 does meet the MSU's General Education Requirements in the FC2, CCS1 and CCS 6, and IP categories. (CCS = Critical Capacities and Skills, PSR = Personal and Social Responsibility, IP = Interconnecting Perspectives, FC = Foundational Content). It is typically taken by those with majors requiring the course or as an elective for those with an interest in the subject matter.

Required Course Materials:

Lecture Materials: **Microbiology**, by OpenStax (the book is a FREE PDF at <https://openstax.org> You can also buy an inexpensive print copy in the bookstore or online).

Lab Materials: No lab manual to buy. I provide a lab handout for each lab when you arrive or have material written on the whiteboard. Your lecture book and the class website has all the photos and reference materials you will presented in the lab setting.

Student Learning Outcomes:

N/A for BIOL 202

Course Objectives:

Both the lecture and laboratory components of Introductory Microbiology at Minot State University (BIOL 202) are designed to adhere to the core themes and concepts recommended for an Introductory Microbiology course by the American Society for Microbiology: Evolution, Cell Structure and Function, Metabolic Pathways, Information Flow and Genetics, Microbial Systems and Impact of Microorganisms. At the conclusion of the course the student will have mastered the following skills: Proper use of the microscope, Gram staining, streak isolation, the ability to carry out a dilution series and the ability to interpret various biochemical tests in order to identify bacterial species.

ASSIGNMENTS AND GRADING INFORMATION

Grading Policy and Scale:	Lecture Exam 1	(50 multiple-choice questions on chapters 1, 2, 3, 4)	100 points
	Lecture Exam 2	(50 multiple-choice questions on chapters 5, 6, 7, 8, 9)	100 points
	Lecture Exam 3	(50 multiple-choice questions on chapters 11, 13, 14, 16) (Lecture Exam 3 is also your Final Examination)	100 points
	11 lab reports	(lowest grade is dropped, 10 points each)	100 points
	Lab mid-term	(format varies, covers labs 1, 2, 3, 4, 5, 6)	50 points
	Lab Final Exam	(format varies, covers labs 7, 8, 9, 10, 11)	50 points
	TOTAL POINTS:		

Letter Grade Breakdown:

— 90% to 100%	A	"Excellent"	450 — 500 points
— 80% to 89.9%	B	"Good"	400 — 449 points
— 70% to 79.9%	C	"Average"	350 — 399 points
— 60% to 69.9%	D	"Poor / Passing"	300 — 349 points
— 0% to 59.9%	F	"Fail"	0 — 299 points

There is no rounding of grades, and no curve applied to the class.

There are no extra-credit projects, and no retaking of quizzes or exams.

Tutoring services are usually available each semester, but not guaranteed.

If you are having academic trouble, ask for help (earlier in the semester is better).

Assignments and Descriptions:

Lecture material is tested by multiple choice exams as noted above. There are no papers to write. Each lab has a handout to be completed and turned in before the lab is over. Lab practical exams test on your knowledge of the lab topics as noted above and in the tentative calendar.

Tentative Course Outline:

<u>Week</u>	<u>Day of the Week</u>	<u>Date</u>	<u>Lecture & LabSchedule</u>	<u>Topic</u>
1	Monday Tuesday Wednesday	May 31 June 1 June 2	No Labs Chapter 1 Chapter 2	Memorial Day. An Invisible World, & the History of Microbiology Seeing the Invisible
2	Monday Tuesday Wednesday	June 7 June 8 June 9	Lab 1 Lab 2 Chapter 3 Chapter 4	Lab Safety and the Ubiquity of Microbes Effectiveness of Handwashing The Cell Prokaryotes
3	Monday Tuesday, Wednesday	June 14 June 15 June 16	Lab 3 Lab 4 Lecture EXAM 1 Chapter 5	Epidemiology of Disease Spread Streak Isolation & Sterile Technique Skills Covers Chapters 1, 2, 3, 4. Eukaryotes
4	Monday Tuesday Wednesday	June 21 June 22 June 23	Lab 5 Lab 6 Chapter 6 Chapter 7	Normal Flora Microbes of Humans Microscope & Simple Staining Skills Viruses & Prions Microbial Biochemistry
5	Monday Tuesday Wednesday	June 28 June 29 June 30	LAB Mid-term EXAM Lab 7 Chapter 8 Chapter 9	Covers Labs 1, 2, 3, 4, 5, 6. Gram Stain Lab (after lab mid-term exam is over). Microbial Metabolism Microbial Growth
6	Monday Tuesday, Wednesday	July 5 July 6 July 7	No Labs Lecture EXAM 2 Chapter 11	Independence Day (observed). Covers Chapters 5, 6, 7, 8, 9. Mechanisms of Microbial Genetics
7	Monday Tuesday Wednesday	July 12 July 13 July 14	Lab 8 Lab 9 Chapter 13 Chapter 14	Bacterial Growth & Serial Dilution Control of Microbial Growth Control of Microbial Growth Antimicrobial Drugs
8	Monday Tuesday Wednesday	July 19 July 20 July 21	Lab 10 Lab 11: part 1 Chapter 16 Study Time	Kirby-Bauer Assay ID of an Unknown Bacteria Epidemiology of Disease Study Time (lecture as needed)
9	Monday Tuesday, Wednesday	July 26 July 27 July 28	Lab 11: part 2 Lab FINAL EXAM Lecture EXAM 3 No Lecture	ID of an Unknown Bacteria (results discussed) Covers Labs 7, 8, 9, 10, 11. Covers Chapters 11, 13, 14, 16

Tentative Dues Dates of Major Assignments: See the Tentative course outline above for the dates and topics of each quiz, exam and lab practical.

POLICIES

- Late and Missed Work Policy:** If you have a schedule conflict (MSU sanctioned sports event, planned surgery, pregnancy, doctor's appointments, etc....), tell me (*if possible*) BEFORE the exam or ASAP by email so we can plan another testing time. If you are sick, go see a doctor first and talk to me later about make up work. Be prepared that makeup exams will likely not be the same format as listed below (i.e. fill in the blank, essay, or other kind of test of my choice). Ideally, all makeup lecture and lab exams will be done within a week of the one on the schedule.
- Attendance Policy:** I follow the Minot State University Attendance Policy that can be found at <http://www.minotstateu.edu/records/pages/policy-class-attendance.shtml> You are expected to attend all lectures and lab. As a courtesy, please email me if you are going to miss lecture or lab. Quizzes are at the beginning of the lecture period.
- University Sanctioned Events Policy:** Minot State University has a commitment to students who represent the University in official capacities. University-sanctioned activities include events that are required or encouraged by a class, program, club, or athletic team. When a student has a scheduled absence due to a university-sanctioned activity, it is the student's responsibility to communicate with the faculty member prior to his or her absence. If your absence occurs during a lab or when a lecture exam is being given, I will work with you to find a time to makeup the quiz or exam you missed. I try to get all missed work completed within 7 days. If the student fails to communicate with me (by email, phone, in-person, etc...) within a week of the missed work, a zero will be scored.
- Academic Honesty Policy with Penalty for Violating the Policy:** I follow the Minot State University Academic Honesty Policy that can be found at: <http://catalog.minotstateu.edu/graduate/policies-regulations/grad-academic-honesty/> If you are caught cheating on any quiz or exam, a zero will be recorded.
- Disability Statement:** In coordination with the Access Services, reasonable accommodations will be provided for qualified students with disabilities (LD, Orthopedic, Hearing, Visual, Speech, Psychological, ADD/ADHD, Health Related, TBI, PTSD and Other). Please meet with the instructor during the first week of class to make arrangements. Accommodations and alternative format print materials (large print, audio, disk or Braille) are available through the Access Services, [in person](mailto:in_person), by phone 701-858-3371 or by e-mail at evelyn.klimpel@minotstateu.edu.
- Non-discrimination Statement:** Minot State University subscribes to the principles and laws of the state of North Dakota and the federal government pertaining to civil rights and equal opportunity, including Title IX of the 1972 Education Amendments. Minot State University policy prohibits discrimination on the basis of race, gender, religion, age, color, creed, national or ethnic origin, marital status, sexual orientation, gender identity, or disability in the recruitment and admission of students and the employment of faculty, staff, and students, and in the operation of all college programs, activities, and services. Evidence of practices which are inconsistent with this policy should be reported using the Student Complaint and Anti-Discrimination Form located here: <https://form.jotform.com/72996849416981>. For the complete non-discrimination statement, visit [here](#).

Title IX Statement:

MSU faculty members are “mandatory reporters,” which means that once we are apprised of violence or harassment based on sex and gender, we are required to report the incident to the Title IX office on campus, regardless of whether the student wants this information reported or not. It may very well be that you would like the information reported, but you do not know whom to approach about this information, in which case our mandatory reporting requirements will be desirable to you. However, if you just wanted to talk about an incident but do not want it reported, neither you nor I have any choice in this matter, and once divulged, I must report it. This Office for Civil Rights.

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to accountability and support. If you or someone you know has been harassed on the basis of sex and gender or assaulted, you can find the appropriate resources on/off Minot State University’s campus.

Contact Information:

Lisa Dooley| Title IX coordinator
Minot State University |Memorial 412
500 University Ave W | Minot, ND 58707
Ph: 701.858.3447 | lisa.dooley@NDUS.edu
[Title IX Resources](#)
[Reporting Forms](#)

IMPORTANT DATES

Assessment Day:

None. No MSU assessment day in the Summer Semester.

Final Exam Date and Time:

See tentative calendar above for the full details of what is on each exam:

Monday	July 26	9:00 AM to 12:40 PM	LAB Final Exam
Tuesday	July 27	9:00 AM to 11:30 AM	Lecture Final Exam

Notes: