

Mayville State University

BIOL 221L – Anatomy and Physiology II Lab

Fall 2025

1 Credit Hours

Course and Instructor Information

Instructor Name: Dr. Joseph Mehus

Contact Information:

Office: SB 134

Email: joseph.mehus@mayvillestate.edu

Work phone: 701.788.4802

Hours of Availability:

Monday, Wednesday and Friday: 11am

Tuesday: 10am-2pm by appointment

Instructional Mode: Online asynchronous

Course Dates: August 25 – December 19, 2025

Time Zone: All times indicated throughout this syllabus reflect Central Time (CT).

Course Materials and Technologies

Required

[MSU Technology Requirements](#)

Computer that meets the Technology requirements above

If a student chooses to use a MAC then they will need a computer with a USB port or a dongle

Textbook: Visual Anatomy and Physiology 3rd Edition, Martini, 2018

24/7 internet access

MS Office

Webcam with microphone

Printer (students will be required to print/complete some items)

Camera/cell phone to take clear images

Microscope (which is part of the lab kit) that connects to their computer

Lab kit from [MSU Bookstore](#)

Recommended

VERY beneficial to have the Visual Anatomy and Physiology, Martini Ober, Nath, 3rd Ed. Textbook.

Notebook and pencil are the best ways to take notes while watching the lecture videos. Students need to have course materials by the start of the semester. Not having course materials is not an acceptable reason for not completing assignments and no credit will be awarded for missed assignments.

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Use of Artificial Intelligence in this Course

AI will not be used during this course and is not a suitable way for students to answer questions. Use of AI will result in a score of zero for the assignment, and possibly for the course.

Course Description

Two laboratory hours per week. Laboratory topics to be covered are designed to complement the materials studied in BIO 221. Topics include activities related to the nervous, endocrine, digestive, urinary, and reproductive systems. Genetics and developmental topics will be reviewed. Microscopic specimens will be examined as appropriate. Animal specimens will be dissected and related to the study of human physiology are also included.

Pre-/Co-requisites: Pre-requisite: BIOL BIOL 111 or BIOL 150, CHEM 121 are all highly recommended.

Co-requisite: BIOL 221 – Anatomy and Physiology II Lecture.

Course Objectives

To successfully complete this course, the learner will be expected to meet the following objectives, as aligned to Health Education Program Approval Standards through North Dakota's Education Standards and Practices Board ([ND ESPB](#)):

- Learner will be able to identify structures and functions of the nervous system
- Learner will be able to explain and identify the structures associated with the special senses
- Learner will be able to describe the organization and functioning of the endocrine organs, including the functions of major hormones
- Learner will be able to explain the organization and functions of the regions of the digestive system, including the role of nutrients and enzymes
- Learner will be able to describe the organization and functioning of the excretory system, especially the function of the kidney in urine production
- Learner will understand the structures and functions of both male and female reproductive systems, including the processes of spermatogenesis, oogenesis, ovulation, menstruation, childbirth, and lactation.

Standards Alignment (Health Education Program Approval Standards-ND ESPB):

- Component 1.a: Candidates demonstrate knowledge acquisition in multiple health content areas.
- Component 1.b: Candidates describe the theoretical foundations of human development, learning and health behavior.

Course Expectations

Instructor/Student Communication

Students are accountable for all academic communications sent to their Mayville State University email address. Email is the primary and preferred method of contact. My email address is provided at the top of the syllabus. I check my email regularly during the work week and will likely respond within 24-48 hours. Email is not checked after work hours or on weekends, so please plan accordingly and do not think I am ignoring you. Emailing the day something is due and expecting immediate feedback is likely not in the best interest of the student.

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If you choose to call my office (number at the top of this document) please leave a detailed message including which class, which item in the content area, and student name, and I will respond via email as it is the preferred method of contact and we also have a paper trail of our conversation. Phone messages are not checked during the evenings nor on weekends.

Students are REQUIRED to use their Mayville State University email address for correspondence. If you email from an outside network email address, faculty are not responsible for missed messages as they may be filtered out of the inbox. As an instructor I will only email you from my MSU email address or from other university platforms (ConnectND or Blackboard). You need to check your MSU email account daily as well as check announcements in the course daily as that is our main method of communication.

Assignments and Assessments

As a student of BIOL 221L, I expect that you:

- Fully review/read the course syllabus and go to it if you have questions before asking the instructor;
- Fully complete the activities/quizzes/reviews for each chapter...this includes reading the chapters and watching video postings, watching lecture videos, and completing exams all by the due dates.
- Check your university email as well as check for announcements within the course shell every single day.

As the instructor of BIOL 221L, you should expect of me that I:

- Clearly provide you a syllabus and disclose course activity due dates for each section of content
- Create a classroom environment that supports your understanding of content;
- Fairly grade assignments and exams

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Labs are distributed via Blackboard. Labs need to be completed and submitted before the due date listed in the schedule below. A printer and camera are required for lab. Lab activities will vary. Some will consist primarily of material intended to introduce you to the structure and function of organs and/or organ systems. There may be "dry" labs, written exercises in which you will complete activities that will be automatically graded. Lab reports that have been provided in Blackboard will require you to fill them out, edit and insert photographs, and complete various questions or complete data tables.

Some labs will require students to provide materials that cannot be shipped either due to federal regulations, cost, or viability of materials. All animal specimen will be provided within the lab kit.

Any labs that have crossword puzzles (CWP) REQUIRE you to print the document, fill it out, then photograph the completed assignment and upload it into the dropbox

Evaluation and Grading

Grading Policies

Grades for labs and lab practicals can be anticipated within 2 weeks of the due date. Turning in an assignment early does not mean that the assignment will be graded before the due date. At times, a set of assignments may take longer to grade, especially if the lab is long, requires multiple photos and labels, or is text heavy. These activities may take additional time. Late submissions may be put into the dropbox, however, that does not mean it will earn points. Only items submitted by the due date will earn points.

Being busy, over sleeping, taking an extra shift, moving, or other general issues are not considered university excused absences. Determination of a university excused absence based upon being sick and having gone to a medical professional who can provide documentation, university sporting event in which you are actively participating in, a death in the immediate family (grandparent, parent, sibling, child, aunt/uncle) for which you can provide documentation, military deployment or legal situations (such as a court date).

Attendance/Participation Policies

Students are expected to attend all lecture days, for online students, this means watching all lecture videos. There are no points simply for coming to class.

Grading Scale

Course grades will be calculated out of total course points.

You will earn a letter grade based on your total points earned out of the possible total points (percentage). Total point percentages will be carried out to the tenths place value and rounded to the

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nearest whole number for the final grade (≥ 0.5 is rounded up). Your percentage will determine your final grade.

90-100% = A

80-89% = B

70-79% = C

60-69% = D

0-59% = F

Breakdown of Grades

Practical Exams	100 points	(2 worth 50 points)
Assignments	220 points	(11 worth 20 points)
Total	320 points	

Lab Practicals

Two open-book exams must be completed during the semester. The first will be associated with materials covered in the labs up to and including tissues, and the final exam will cover the remaining labs. Materials to be considered in writing the exams will include both objective materials learned during the labs, and applications associated with the structures and systems studied. Identification of structures in photographs and line art is included in the exams. You do NOT need to make a Yuja recording for Lab Exams.

Enrollment Verification

Online Course Statement

The U.S. Department of Education requires instructors of online courses to provide an activity which will validate student enrollment in this course. The only way to verify that a student has been in this course is if he, she, or they perform an action in the LMS, such as completing an assignment(s) or taking a quiz. Logging into the LMS is **NOT** considered active course participation. Please complete the designated enrollment verification activities by the date indicated. If it is not complete your enrollment in this course will be at risk.

Proctor Notification

No proctor is needed for this lab course.

Important Student Information

In the Announcements section of the Blackboard Institution Page, you can view and download the Important Student Information document for the current academic year. It includes information about:

- ✓ Land Acknowledgement Statement
- ✓ Academic Grievance Concerns and Instructor English Proficiency

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- ✓ NetTutor - Online Tutoring Program
- ✓ Starfish - Student Success System
- ✓ Students with Documented Disabilities
- ✓ Student Learning Outcomes / Essential Learning Outcomes
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement (Title IX)

Course Timeline/Schedule

This schedule is tentative and may be changed by the instructor at any time during the course. All due dates end at 5pm CST on the dates listed below. Enrollment verifications must be completed before any coursework folders open. Online students are allowed to work ahead of deadlines. Once work for a chapter is completed, the next section will open. If something does not open, please let the instructor know immediately.

Topic	Due Date
Lab 1 - Enrollment Verification	9/2/25
Lab 2 – Neurons/Nervous System/Microscopy	9/16/25
Lab 3 – Gross Anatomy of the Central Nervous System	9/23/25
Lab 4 – Brain Dissection	9/30/25
Lab 5 – Relex and Sensory	10/7/25
Lab 6 – Eye Dissection and Vision	10/14/25
Lab Practical 1	10/30/25
Lab 7 – Endocrine System	11/4/25
Lab 8 – Digestive System/Fetal Pig Dissection	11/11/25
Lab 9 – Urinary System	11/18/25
Lab 10 – Reproductive System	11/25/25
Lab 11 – Genetics/Genomics – DNA Extraction	12/2/25
Lab Practical 2	12/11/25