

**MAYVILLE STATE UNIVERSITY**  
**Anatomy and Physiology I Lab, BIOL 220L (Online)**

**1 Credit**

**Fall, 2018**

**\*\*\*Before starting this online course, students need to check with their current and future programs to determine if this course will be accepted for credit in their programs\*\*\***

**Instructor Name and Contact Information:** Joseph Mehus, SB 134, joseph.mehus@mayvillestate.edu, 701.788.4802

**Hours of Availability:** MWF 11am-Noon CST

**Instruction Mode:** Online asynchronous

**Time Zone:** All times indicated throughout this syllabus reflect Central Standard Time (CST)

**Course Description**

Two laboratory hours per week. Laboratory topics to be covered are designed to complement the materials studied in BIOL 220. Topics include activities related to cellular structure, micro and macroscopic observations and interpretations of cellular, tissue, integument, skeletal, muscular, cardiac system structures and tissues, and dissection of animal specimens. Activities related to the study of physiology are also included.

**Purpose of the Course**

This course will provide content in the areas related to maintenance of homeostasis within the human body. We will start by covering basic biological concepts such as cell structures and functions and reviewing terminology. The second and third chapters will cover cell organelles and cell chemistry. Chapter four material will be based on histology and study of tissues and the identification of those tissues. Chapter five will discuss the epidermis and accessory organs in addition to their functions. We will also cover bone development, maintenance, and articulations. Muscles will be discussed in terms of physical structure and mode of operation. Production and function of blood cells will be discussed in correlation to immunity. The course will finish by discussing the cardiovascular system to include vessels and path of blood through the body including the pulmonary circuit. These pages/chapters may differ upon which edition of the text is used.

**Course Objectives** and intent of the course are that successful students will:

- Understand the organization of the human body and anatomical terminology
- Understand the chemical basis of life, cell structure and organization
- Understand the characteristics of the four tissue types.
- Understand the organization and function of the skeletal system.
- Be able to identify the bones of the body.
- Be able to identify the major muscles found in the body.
- Understand the organization and function of the circulatory system, including tracing the path of blood through the heart.
- Understand the organization and function of the lymphatic system and its role in the immune system.
- Understand the inner workings of the immune system and the function of the different cell types.
- Understand the organization and function of the respiratory system.

## **Program Student Learning Outcomes (SLOs) Addressed in This Course**

The Academic Program Student Learning Outcomes document can be found in your Blackboard course shell. It contains all learning outcomes pertaining to Essential Studies courses and all majors and minors. The document has an index so you can quickly find the degree you are pursuing.

As part of Mayville State University's Essential Studies curriculum, this course seeks to prepare students for twenty-first century challenges by gaining: 1) Knowledge of human cultures; 2) Intellectual and practical skills; 3) Personal and social responsibility; 4) Integrative and applied learning.

## **Course Improvements Based on Most Recent Assessment Findings**

During previous offerings of this course, students have done well. Even though students have met expectations in the course, I will be spending more time explaining diagrams that are pertinent to the education of students. I would prefer to see structure identification and function scores to be higher. In addition, oral communication skills of students were assessed for content knowledge, vocabulary, presentation skills and preparation. Students' exceled in oral communication as long as they took the time to use their own words to explain terminology.

## **Required/Recommended Materials**

Lab Protocols will be provided to students. Lab kits need to be purchased from Mayville State University Bookstore. It is VERY beneficial to have the textbook (Visual Anatomy and Physiology, Martini, Ober, Nath 3<sup>rd</sup> ed) when filling out lab materials, worksheets, and quizzes. Online sources should be used to fill out lab assignments. Printer, Webcam, 24/7 internet access, computer that meets the university standards (Mac users may have issues, this is a PC campus), and Microsoft Office (Mac programs such as Pages cannot be opened by instructor, MS Office is required and a free copy can be downloaded through the MSU Technology website (link below). Students may be using alternative versions of the text, and this is ok, but just keep in mind that if page numbers are referenced, they may be different. The content is the same in all versions of the text, students just need to locate the material in the text pertinent to the chapter/context discussed. By continuing on with this course, student acknowledges text differences may be discovered.

<http://www.mayvillestate.edu/msu-online/msu-online/getting-started>).

<http://www.mayvillestatebookstore.com/home.aspx>

## **Learning Experiences**

- Read all chapters prior to completing labs or do appropriate research online, including chapters as noted, research articles, etc. Students who are not enrolled in the lecture portion may be at a disadvantage as they do not get lecture content. By continuing with the course, students acknowledge and accept this.
- Assignments will be given in through Blackboard.
- Quizzes in Blackboard are required to be completed on or before designated due dates.
- It is important for you to check your grades in Blackboard. If you find that the instructor has made a mistake while entering your grade, you have one week to bring it to the attention of the instructor. After a ONE WEEK PERIOD, grades will be locked in Blackboard.
- Please refrain from requesting extensions as they will not be granted. Please not this before starting the course and refrain from leaving negative feedback in you miss a deadline and are not granted an extension. Please do not feel disrespected if your request does not receive a reply, by continuing in the course, you accept this rule. This is your formal notification about requests for extensions.

## **Instructional Technologies Utilized in this Course**

- Blackboard
- Tegrity

## Expectations/Protocols

**Labs:** 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 is required for the labs. Labs will vary. Some will consist primarily of material intended to introduce you to the structure and function of organs and/or organ systems. These will be “dry” labs, written exercises in which you will complete online quiz-like activities that will be computer-graded. Quizzes may also include “essay-type” questions. Dissections or “wet” Labs may require Lab Reports, Lab Quizzes, or both. Where required, Lab Reports must be completed and submitted with required photos to the digital drop box. There may also be long-answer questions or data tables, which you will complete and include in the online report. Some labs will use materials found within the home, and there will be a white rat, pig heart included in the lab kit you must purchase, which will be dissected. For labs, which would normally involve microscopy, the digital images will be provided, with procedures modified to concentrate on interpretation of the visual information. **Lab quizzes may be part of some labs, and when labs are completed, the quiz must be taken. Both labs and lab quizzes have the same due dates/times. So waiting until the last minute will NOT work for you!!! You will need to finish the lab early so that you can take the lab quiz that may follow.** A scoring guide or rubric may be provided for each wet lab, which will help you to understand what is expected in the lab report, and to do well in the lab. The rubric should be reviewed before completing the lab procedure. It is essential that you follow procedures carefully, submit all required photograph in which all required structures are clearly visible and labeled as specified, and answer all parts of all questions.

**Quizzes:** Each quiz (one for each chapter) will be posted and available for you in Blackboard when release by the instructor at their discretion (online: these are available as you finish content). You should fill out the 5 question quiz after you have filled out the lab. Quizzes are worth 10 points each. The questions on each of these quizzes are from the content in the lab specified and Tegrity videos. You may use your books or online resources to fill out these quizzes. They are NOT timed so take your time to look up the answers. Quizzes not completed by the deadline given in the classroom or schedule will not be reopened.

## Instructor/Student Communication

- Students are accountable for all academic communications sent to their Mayville State University e-mail address. Students should not use outside email. Instructor is not responsible for emails not received (by instructor themselves or by students) if outside email is used.
- Faculty response time will be up to 72 hours during the work week if a specific question is asked (most questions responded to in 24 hours). If no questions is explicitly asked, a response may not be deemed necessary. Emails will not be checked on the weekends. An email sent on a Friday afternoon may not be responded to until the following Tuesday (or longer if there is a holiday). Please plan ahead accordingly.

## Method of Evaluation/Grading

**1)** Grades for labs, quizzes, lab practical's can be anticipated within 2 weeks of the due date. Turning an assignment in early does not mean grading will be done early. Sometimes, a set of assignments will take longer to grade, especially if the assignment is heavy in text (some labs may fall into this category) and may take an additional week.

**2)** In regards to late submissions, they are not accepted. Make-up practicals, missed labs/quizzes are ONLY permitted if there is a UNIVERSITY EXCUSED ABSENCE AND THERE IS DOCUMENTATION. Being busy, over sleeping, taking an extra shift, or general issues are NOT university excused absences. Please do not ask for extensions based upon these issues. If a university excused absence is in place with documentation, the student has 1 (one) week to complete the activity. This is one week from the day of the due date, NOT a week from when the student returns or contacts the instructor. After 1 (one) week, no points will be awarded. Determination of a

university excused absence is 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 (which documentation is required), death in the immediate family (grand parent, parent, sibling, child, aunt/uncle for which you can provide documentation), military deployment (which documentation can be provided for), or legal (such as a court date that documentation can be provided for). Moving or travel is NOT a university excused absence. In terms of attendance and/or participation points, please see section above.

Grades will be TENTATIVELY based on two exams, lab assignments and lab quizzes. ***There will be no make-ups for lab practical exams, except under extreme circumstances (medical, legal or military). You can only make up one exam during the semester and it must be during the exam week. You must take both lab practicals to pass the course.*** The grading scale is the typical 90% = A, 80%=B, 70%=C, 60%=D, <60%=F. **IT IS IMPORTANT FOR YOU TO CHECK YOUR GRADES ON BLACKBOARD. IF YOU FIND THAT I HAVE MADE A MISTAKE WHILE ENTERING YOUR GRADE YOU WILL HAVE ONE WEEK TO BRING IT TO MY ATTENTION, AFTER THAT GRADES ARE LOCKED IN BLACKBOARD.**

Practical Exams	100 (2 worth 50 points)
Lab Quizzes	40 (4 worth 10 points)
<u>Assignments</u>	175 points (5 worth 10 points, 5 worth 25 points)
Total	315 points

Grades (%):	90-100	A
	80-89	B
	70-79	C
	60-69	D
	< 60	F

### Enrollment Verification

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 or she takes an action in Blackboard, such as completing an assignment or a taking a quiz. Logging into Blackboard is **NOT** considered attendance. Please see the enrollment verification activity and complete it by the date indicated. If it is not complete your enrollment in this course will be at risk and you may be removed from the course. Students will be required to submit introductions to confirm their enrollment in the course. These activities are labeled in the Blackboard Course Shell.

### Proctor Notification

This course does NOT use proctors as the instructor is the proctor.

### Late Arrivals

The grading system for students adding this course after the first day of instruction will not be modified. The student will be graded on the activities that transpired from the beginning of the course. Students will be penalized for missed assignments and the student is still responsible for learning the course material that was covered during their initial absence.

### Important Student Information

In the Blackboard course, you will find a document entitled, "Important Student Information," which includes information about:

- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ Starfish - Student Success System
- ✓ Students with Documented Disabilities

- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement

### Course Timeline/Schedule

All Lab Reports, Lab Quizzes and Lab Practical's must be completed by the scheduled due dates as listed below. Activities will be turned off as of 5pm CST on those due dates and no credit will be available for those activities after the due dates. If an emergency situation occurs, which affects your participation in this course, contact me immediately. Be prepared to provide proof (documentation). Being busy is not an emergency. Do not send an email saying you have a sick child or you have been sick, these assignments are open from day one and you can finish them before the due date. For the purposes of this course an "emergency situation" is an unexpected, unpreventable and significant occurrence, which realistically prevents you from completing required coursework by its due date. You are expected to be aware of due dates and manage the required coursework within your personal schedule and obligations. For example, not submitting any coursework for 3 weeks and then not being able to submit it during week 4 because of an emergency that week is not acceptable.

Course Schedule:

**NOTE:** This is a **tentative** schedule. It may change as needed.

Lab Topic	Due Dates
Lab 1 – Anatomical Terminology	8/31/18
Lab 2 - Chemistry	9/9/18
Lab 3 – Diffusion/Osmosis	9/19/18
Lab 4 – Cell Structures/Functions	9/29/18
Lab 5 – Tissues	
Once Lab 5 is submitted, Lab Practical 1 Opens (Due Date 10/11/18 5pm CST)	10/9/18
Lab 6 – Integumentary System	10/19/18
Lab 7 – Axial Skeleton	10/29/18
Lab 8 – Appendicular Skeleton	11/8/18
Lab – 9 Musculature Exploratory Rat Dissection	11/18/18
Lab 10 – Heart Heart Dissection	11/28/18
Lab Final Due(12/5/18 5pm CST)	

### 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 Tegrity recording for Lab Exams.**

***As a student you are expected to:***

- Begin the lab course when the semester begins.
- Order your lab kits from the MSU Bookstore BEFORE the course starts. Check your lab kit for all enclosed items when it arrives. **Contact the MSU Bookstore immediately if all items are not present and intact. Instructor does not put together, nor accommodate for missing lab components, check your kits.**
- Answer questions appropriately: Some lab report answers may be given without full sentence structure where appropriate to the questions asked, but must clearly answer all parts for the question, contain correct spelling and display appropriate grammar and word usage. Answers to other questions, such as essay questions or short answer questions, which ask students to “explain”, “compare” or “describe”, should display appropriate sentence structure and logical development of thought. **Every single answer needs to be put into your own words. Copy and paste is plagiarism and will receive a score of ZERO.**
- Check your Mayville State email and the ANNOUNCEMENTS forum on the course home page a minimum of four times weekly to remain current on course information and changes.

**Additional Information:** This classroom is a place where you will be treated with mutual respect, and the course instructor welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible or nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. MSU is committed to providing a safe learning environment, free of harassment and discrimination as articulated in our university policies located on our website at <http://www.mayvillestate.edu/about-msu/consumer-information/title-ix/>. MSU’s policies require me as a faculty member to share information about incidents of gender based discrimination and harassment with MSU’s Title IX coordinator, regardless of whether the incidents are stated to me in person or shared by students as part of their coursework.