



The mission of the University of Mount Union is to prepare students for fulfilling lives, meaningful work, and responsible citizenship.

Department of Biology

College of Natural and Health Sciences

BIO 21 I: Anatomy and Physiology II

4 credit hours (lecture + lab)

INSTRUCTOR INFORMATION:

- Dr. Christopher Marks
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- markscp@mountunion.edu
- Office hours: tinyurl.com/bookdrmarks

COURSE DESCRIPTION:

This course is an integrated study of the structure and function of various organ systems of the human body such as the Endocrine, Cardiovascular, Lymphatic, Immune, Respiratory, Digestive, Urinary, and Reproductive systems. An extensive presentation of the anatomy of these systems will be given at the macroscopic and microscopic levels. The functions of these systems will be addressed through the study of each system's homeostatic mechanisms as well as their response to homeostatic imbalances in the body. Both the lecture and the lab are delivered online for this course. A lab fee is charged for the course. Prerequisite: BIO 210. 4 Sem. Hrs.

COURSE PURPOSE:

Anatomy is the study of human body structure. Physiology is the study of human body function. Understanding the form and function of the body is essential to preparing you for your career in human health related fields. In A&P you will learn the basic principles necessary to diagnose and treat various health conditions. You will learn about the normal functioning of all of the major body systems as well as identifying normal structures.

REQUIRED COURSE MATERIALS:

- Human Anatomy and Physiology 11th Edition
- Mastering A&P access (see D2L for instructions)
- Complete Anatomy access (see D2L for instructions)

All course materials comply with copyright/fair use policies

COURSE DELIVERY:

This course is delivered Online Asynchronously. Your instructor will provide materials for you in our learning management system (D2L). Some of the materials will be readings, lectures for viewing, assignments for completing, and exams for evaluation. You can access and satisfy these requirements on your own schedule, so long as you meet the expected deadlines. Some of the methods we employ for asynchronous online learning include self-guided lesson modules, pre-recorded video content, virtual libraries, lecture notes, and online discussion boards or other media platforms.

This course is organized in alignment with Mount Union University's online course template. Each weekly lesson contains an overview and objectives, readings, and related materials, learning activities and assessments, as well as supplemental resources.

COURSE LEARNING OBJECTIVES:

After successful completion of this course students will be able to:

1. Demonstrate an understanding of the key concepts and vocabulary relating to human anatomy and physiology.
2. Explain basic chemistry and cell biology principles.
3. Describe the basic functional histology, anatomy and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems and successfully communicate the relationships of anatomical structures to various physiological processes

MEASUREMENT OF LEARNING OBJECTIVES:

Each of the course learning objectives are aligned with weekly learning objectives. Each week you will be given resources, lectures, and activities to complete that align with the weekly learning objectives. After reviewing the resources and participating in the weekly activities, you will be assessed to see if you have achieved the knowledge or skills described in the learning objectives.

TECHNOLOGY REQUIREMENTS FOR ONLINE COURSES:

College coursework during these times requires students to be more responsible than ever in keeping up with reading and assignments, checking email and D2L frequently, and staying in regular communication with instructors. Technology access will therefore be critically important to your success in this course. The lecture presentations, links to articles, assignments, quizzes, and rubrics are located on the D2L site for the course. To participate in learning activities and complete assignments, you will need:

- Access to a working computer that has a current operating system with updates installed, plus speakers or headphones to hear lecture presentations.
- Access to a video/web camera.
- Reliable Internet access and a Mount Union email account.
- A current Internet browser that is compatible with D2L.
- Microsoft Word as your word processing program.
- Reliable data storage for your work, such as a USB drive or Office365 OneDrive cloud storage.

Please contact the IT Help Desk at (330) 829-8726 or Helpdesk@mountunion.edu if you need assistance with obtaining or using a device, any necessary software, or internet access at any time during this semester.

ASSIGNMENTS:

All course written requirements should be submitted via the Assignments tool in D2L. Lessons will run Monday-Sunday of each course week. Lessons will open on the Friday prior to the start of a lesson. All assignments, other than discussion forum posts, should be completed and submitted by the last day of the lesson week (Sunday) at 11:59 p.m. Because of the way the course is structured, students must stay on track with assignment dates and cannot complete assignments from previous weeks once the due date is passed.

DISCUSSION FORUM PARTICIPATION:

Participation in discussion forums is critical for maximizing students' learning experiences and is required for the online delivery of this course. Each student is required to be part of an online community who interact, through discussion, to enhance and support the professional development of the group.

Active participation in discussion topics is defined as making at least one (1) original posting per week for each discussion topic and at least two (2) responses to colleagues' postings. This will result in a minimum total of three (3) postings each week, per topic.

NOTE: Your original post will be due each week by Wednesday at 11:59 p.m. and all subsequent posts will be due by Sunday at 11:59 p.m.

The course discussion rubric provides specific guidelines on how discussion contributions will be graded and what is considered a substantive response. Some characteristics that are considered to be a part of excellent discussion

contributions are outlined below. The instructor will consider these characteristics when assessing students' quality and level of participation.

- Each student should submit his/her initial post(s) early in the session and your subsequent responses to the posts of other learners at timely intervals within the duration of the session. Keep in mind the goal is to have a dynamic discussion that lasts throughout the entire session.
- Discussions occur when there is dialogue. Build upon the posts and responses of other learners to create discussion threads. Revisit the discussion forum and respond (if necessary) to what other learners have posted to initial responses.
- Postings should be substantive and will be evaluated on their quality and the degree to which they promote discussion among classmates.
- For a posting to be considered substantive, it should meet the following criteria:
 - It ties personal experience and practice to the concepts that are being discussed.
 - It avoids repeating or rehashing points made by others.
 - It demonstrates understanding and integration of course readings and provides relevant citations.
 - It incorporates ideas shared by others and the instructor to create a clearer and more comprehensive presentation of the concept under review.
 - It poses real-life questions or challenges that spring from the discussion material and attempts to shape informed conclusions.

COURSE GRADING:

Grades will be based on depth of personal insight, critical thinking, and application of theoretical concepts to scenarios being analyzed. Specific guidelines and grading criteria will be provided with each assignment.

The following activities will be evaluated, and the relative weight of that evaluation is noted:

<u>Assignments/Assessments</u>	<u>% of Final Grade</u>
6 Module Quizzes	40
1 cumulative final exam	10
6 mastering A&P activities	20
6 discussions	15
6 1-page essays	15
Total	100%

Grading Scale

92.5-100%	A	76.5-79.4%	C+
89.5-92.4%	A-	72.5-76.4%	C
86.5-89.4%	B+	69.5-72.4%	C-
82.5-86.4%	B	66.5-69.4%	D+
79.5-82.4%	B-	62.5-66.4%	D
		59.5-62.4%	D-
		59.4% or less	F

COURSE FLEXIBILITY:

This syllabus is designed to assist you in planning your studies and course work and will be followed as closely as possible. Nevertheless, every course syllabus is subject to change at the discretion of the instructor. It is important to remember that your Mount Union email account is the official method of communication and will be used by University faculty and officials to communicate any notices, updates, or changes regarding your courses.

Check D2L each Monday for weekly deadlines and updates.

COURSE POLICIES/PROCEDURES/EXPECTATIONS

This course is fully online and asynchronous, meaning that you are responsible for covering the material I provide for you. All material, activities, and quizzes are fully prepared in D2L. Pace yourself and schedule a meeting with me if you need help.

COURSE COMMUNICATION:

Students are expected to check their Mount Union email account frequently for important course information. If you are having trouble understanding any aspect of the course, please contact me.

I grade all assignments that require feedback within 72 hours. I respond to all emails within 24 hours.

LATE WORK POLICY:

Mastering A&P activities have a 2% per hour late penalty. Late D2L assignments including discussions, quizzes, and essays will not be accepted unless you can document extraordinary circumstances.

ACADEMIC INTEGRITY:

Academic Integrity is at the heart of the mission and values of the University and is an expectation of all students. Maintaining academic integrity is a reflection of your character and a means to ensuring that you are achieving the outcomes of this course and that your grades accurately reflect your learning and understanding of the course material. Cutting corners or cheating in this class will result in cheating yourself out of learning.

Academic integrity is a partnership between me, as the instructor, and you, as the student. My role, as instructor of this course, is to facilitate learning and to provide you with clear guidelines and feedback to help you maintain your academic integrity. Your role in this course is to take responsibility for your learning and to complete all assignments in an honest manner and to ask for clarification from me if you are unsure of how to do so.

Students who are found responsible for committing academic dishonesty will receive a zero for the assignment. The academic dishonesty issue will also be brought to the Department Chair and the Office of Academic Affairs who may impose additional sanctions as provided in the University policy regarding Academic Honesty.

ONLINE LEARNING:

Attendance for an online or hybrid course is defined as an online presence demonstrated by active participation and engagement in all learning activities as required by the instructor. Failure to fulfill requirements within the parameters of each session will be construed as absence.

- For online tests, you can use notes and your book, but no group work is permitted in any way.
- If you violate one of the standards in the University Academic Honesty statement, it will result in a zero for that assignment, and I am required to report it to the Office of Academic Affairs.
- While group studying and sharing of ideas is encouraged, you may not consult with other students about papers or other assignments in this course.

ONLINE CONDUCT:

Professionalism is always expected. Because the virtual classroom is a place designed for the free exchange of ideas, we must show respect for one another in all circumstances. We will show respect for one another by exhibiting patience and courtesy in our exchanges. Appropriate language and restraint from attacking those whose perspectives differ from your own is a minimum requirement. Bullying will not be tolerated. Courtesy and kindness are the norm for those who participate in my class. Think before you type or communicate. Remember, typing in all CAPS is the same as yelling, and sarcasm comes across differently when written.

INTELLECTUAL PROPERTY:

As a learning community, the University of Mount Union embraces the entrepreneurial mindset, creativity, and innovation. To support innovation, the University has an Intellectual Property Policy to help identify, protect, communicate, and commercialize innovation resulting in possible monetary rewards for the innovator at UMU. The University strongly encourages innovators to have an open discussion with the Office of Academic Affairs to discuss any innovations. The complete UMU Intellectual Property Policy is available on iRaider under "Policies -> Institutional Policies".

STUDENT RIGHTS AND GRIEVANCES:

Students have a right to equitable access for their course instruction, materials, and facility. Students also have a right to respectfully express their views and opinions in class discussion boards as well as in their writing and speaking assignments, without fear of ridicule or retribution. In addition, students have a right to safety and privacy during their course instruction that prohibits discrimination and harassment of any type by any person. Students also have a right to fairness in grading and learning objective assessment, as well as timely communication from the instructor. Any student who may feel that their rights have been violated may file a grievance regarding Title IX, civil rights, conduct, discrimination or harassment using the appropriate grievance procedure in the University's student handbook available on the Mount Union website. Academic complaints, such as disputes over a grade, should be filed in accordance with the procedures laid out in the University Catalogue available on the Mount Union website.

UMU DIVERSITY AND INCLUSION STATEMENT:

At the University of Mount Union, we continuously strive to welcome, accept, and respect all people. We believe that through the union of disparate perspectives, we strengthen our community, facilitate global enlightenment, and enable collective self-discovery. As such, we embrace diversity and inclusiveness to facilitate the development of ideas, the advancement of global perspectives, and to create a greater understanding and acceptance of all people. We actively promote a diverse and inclusive environment that obliges mutual respect and positive engagement to effectively enrich learning and living for our students, faculty, staff, administration, and community.

As members of the University of Mount Union community, we pledge to:

- Acknowledge, respect, honor, and celebrate diversity.
- Work together to create an environment that is both diverse and inclusive.
- Take these inclusive attitudes with us as we continue our life journeys.

ASSIGNMENTS AND COURSE SCHEDULE

COURSE SCHEDULE SUBJECT TO CHANGE BY THE INSTRUCTOR BASED UPON STUDENT NEEDS

Week	Topics	Activities	Due Date/Time
Week 1	Blood and Endocrine	<ul style="list-style-type: none"> • Mastering A&P activity • Week 1 Quiz • Week 1 Discussion • Week 1 Essay 	<ul style="list-style-type: none"> • Mastering A&P activity due 7/7 11:59 PM • Initial discussion post due 7/7 11:59 PM • Discussion replies due 7/10 11:59 PM • Essay and quiz due 7/11 11:59 PM
Week 2	Heart and Vessels	<ul style="list-style-type: none"> • Mastering A&P activity • Week 2 Quiz • Week 2 Discussion • Week 2 Essay 	<ul style="list-style-type: none"> • Mastering A&P activity due 7/14 11:59 PM • Initial discussion post due 7/14 11:59 PM • Discussion replies due 7/17 11:59 PM • Essay and quiz due 7/18 11:59 PM
Week 3	Lymphatic, Immunity, Respiratory	<ul style="list-style-type: none"> • Mastering A&P activity • Week 3 Quiz • Week 3 Discussion • Week 3 Essay 	<ul style="list-style-type: none"> • Mastering A&P activity due 7/21 11:59 PM • Initial discussion post due 7/21 11:59 PM • Discussion replies due 7/24 11:59 PM • Essay and quiz due 7/25 11:59 PM
Week 4	Digestive, Nutrition, Metabolism	<ul style="list-style-type: none"> • Mastering A&P activity • Week 4 Quiz • Week 4 Discussion • Week 4 Essay 	<ul style="list-style-type: none"> • Mastering A&P activity due 7/28 11:59 PM • Initial discussion post due 7/28 11:59 PM • Discussion replies due 7/31 11:59 PM • Essay and quiz due 8/1 11:59 PM
Week 5	Renal, Water/Ions/pH	<ul style="list-style-type: none"> • Mastering A&P activity • Week 5 Quiz • Week 5 Discussion • Week 5 Essay 	<ul style="list-style-type: none"> • Mastering A&P activity due 8/4 11:59 PM • Initial discussion post due 8/4 11:59 PM • Discussion replies due 8/7 11:59 PM • Essay and quiz due 8/8 11:59 PM
Week 6	Reproduction and Pregnancy	<ul style="list-style-type: none"> • Mastering A&P activity • Week 6 Quiz • Week 6 Discussion • Week 6 Essay • Final exam 	<ul style="list-style-type: none"> • Mastering A&P activity due 8/11 11:59 PM • Initial discussion post due 8/11 11:59 PM • Discussion replies due 8/14 11:59 PM • Essay, quiz and final exam due 8/15 11:59 PM

APPENDICES

Discussion Rubric

Criterion	Below Average (1)	Average (2)	Very Good (3)	Excellent (4)	Score
Quality of Information in Posting	Posting simply restates the main concept. Does not demonstrate an understanding of materials and concepts Introduces little or no substantive contribution to discussion	Demonstrates a moderate understanding of materials and concepts No details and/or examples are given.	Postings consistently focus on the week's topic and relate the underlying concepts in the readings to the discussion. Provides at least 1 supporting detail or example. Demonstrates strong understanding of materials and concepts	Postings consistently focus on the week's topic and relate the underlying concepts in the readings to the discussion. Comments including several supporting and details and/or examples. Demonstrates a superior understanding of materials and concepts	4
Citations and Resource Development	Never cites sources and/or does not provide information regarding outside resources related to the topic.	Rarely cites sources or provides information regarding outside resources related to the topic.	Occasionally cites sources or provides information regarding outside resources related to the topic.	Consistently cites relevant and reliable sources used to develop posting and provides information regarding outside resources related to the topic.	4
Critical Thinking	Does not identify and summarize the problem, is confused or identifies a different or inappropriate problem	Identifies the main problem and subsidiary, embedded, or implicit aspects of the problem	Identifies not only the basics of the issue, but recognizes nuances of the issue	Provides exemplary insights, engages other opposing postings, and draws support from experience and information not available from assigned sources	4
Word Choice, Voice, and Grammar	The writer struggles with a limited vocabulary and is unable to convey meaning. Grammar, spelling, and basic punctuation are often incorrect.	Though understandable, writing lacks detail and precision. Some problems exist with word usage, syntax and grammar are present.	The writer demonstrates a strong grasp of standard writing conventions. A few problems with word usage and grammar are present	The writer demonstrates a strong grasp of standard writing conventions, including spelling, punctuation, word usage appropriate for graduate level work. Very few grammatical and/or typographical errors were present, if any.	4
Participation	A post own comments but does not interact with others in the online community.	Rarely interacts or responds to other members of the online community other than required responses.	Occasionally responds to other members of the online community over the required minimum number of postings.	Consistently encourages and facilitates interaction among members of the online community on an ongoing basis over the required minimum number of postings. Provides very timely responses to postings	4
Total Score:					20

APPENDICES

Essay Rubric

Criterion	Below Average (1)	Average (2)	Very Good (3)	Excellent (4)	Score
Quality of Information	Does not demonstrate an understanding of materials and concepts	Demonstrates a moderate understanding of materials and concepts No details and/or examples are given.	Demonstrates strong understanding of materials and concepts	Demonstrates a superior understanding of materials and concepts	4
Citations and Resource Development	Never cites sources and/or does not provide information regarding outside resources related to the topic.	Rarely cites sources or provides information regarding outside resources related to the topic.	Occasionally cites sources or provides information regarding outside resources related to the topic.	Consistently cites relevant and reliable sources used to develop posting and provides information regarding outside resources related to the topic.	4
Critical Thinking	Does not identify and summarize the problem, is confused or identifies a different or inappropriate problem	Identifies the main problem and subsidiary, embedded, or implicit aspects of the problem	Identifies not only the basics of the issue, but recognizes nuances of the issue	Provides exemplary insights, engages other opposing postings, and draws support from experience and information not available from assigned sources	4
Word Choice, Voice, and Grammar	The writer struggles with a limited vocabulary and is unable to convey meaning. Grammar, spelling, and basic punctuation are often incorrect.	Though understandable, writing lacks detail and precision. Some problems exist with word usage, syntax and grammar are present.	The writer demonstrates a strong grasp of standard writing conventions. A few problems with word usage and grammar are present	The writer demonstrates a strong grasp of standard writing conventions, including spelling, punctuation, word usage appropriate for graduate level work. Very few grammatical and/or typographical errors were present, if any.	4
A&P Terminology	Demonstrates weak application of A&P terminology	Demonstrates moderate application of A&P terminology	Demonstrates strong application of A&P terminology	Demonstrates superior application of A&P terminology	4
Total Score:					20