

**THE UNIVERSITY OF NEW MEXICO–
Valencia
COURSE SYLLABUS
Biol 2210L: Anatomy and Physiology I, Lab
Fall 2024**

Instructor: EM DiMenna PhD	Section: 501
Phone: N/A – email me!	Email: edimenna@unm.edu
Class meeting day/time: 12-1:45pm and asynchronous Office Hours on Monday 2-3pm.	Class location: VAHS-113 Canvas.unm.edu

Course Information

Catalog Description

This is the first in a series of two laboratory courses designed to introduce laboratory practices and techniques for human anatomy and physiology, from the basic cell structure through the organ system level; specifically the integumentary, skeletal, muscle, and nervous systems. Pre- or corequisite: 2210

Course Goals

This is the first course in a two-semester sequence that provides a comprehensive introductory study of the human body for biology majors and allied health students. It is a prerequisite for acceptance to many nursing, dental hygiene, and other allied health programs. It provides a strong foundation in principles and concepts that have many clinical applications.

State Learning Outcomes

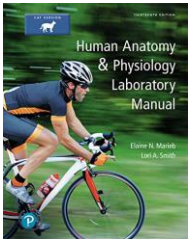
1. Apply the scientific method correctly.
2. Collect, analyze, and interpret scientific data
3. Use laboratory equipment, such as a microscope, correctly and safely.
4. Analyze the structure of cells, cell membranes, and cell organelles with respect to their respective physiological roles.
5. Identify the anatomical components of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
6. Describe the functional characteristics of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
7. Analyze the physiological processes of the integumentary, skeletal, muscle, and nervous systems

Course website

<https://canvas.unm.edu/>.

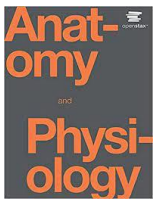
Optional Textbooks, Course Materials,

Free instructor's Lab Book Posted to Canvas for in class and if you miss a class or elect to go remote, you will need to check the schedule and use the following text:



Human Anatomy & Physiology Laboratory Manual, Cat Version, 13th edition. Elaine N Marieb and Lori A. Smith. Pearson. Copyright 2019. Publication date: July 2021. ISBN-10. 0134632338 · ISBN-13. 978-0134632339

The Anatomy Coloring Book. Wynn Kapit and Lawrence M. Elson, Benjamin-Cummings Publishing Company. June 2001 ISBN: 0805350861, ISBN13: 9780805350869r



OpenStax Anatomy and Physiology. ISBN: 9781938168130, Students can [access free online textbook at the OpenStax website](#) or through Amazon.com OpenStax Page.

Although this course uses Pearson materials and the chapters are numbered to the Pearson texts, OpenStax is a free option that covers the majority of the topics we cover nearly identically in terms of content. Also, again, it is FREE.

Optional/Classic Text: Gray's Anatomy: Anatomical Basis of Clinical Anatomy



Optional Reading References are according to the Table of Contents for the Gray's Anatomy, 42nd Edition (but editions 39- 41 will also work relatively well)
ISBN 9780702077050 Copyright 2021, Published October 2020, Editor Susan Standing, MBE, PhD, DSc, FKC, Hon FAS, Hon FRCS

Original Authors 1858: Drs Henry Gray and Henry Vandyke Carte

Technology Recommendations and Requirements



To ensure the best possible learning experience, owning, or having reliable access to, a modern personal computer with virus protection is recommended.

Online courses perform optimally on high-speed internet, particularly with cable and DSL connections.



Some courses might require the need for a webcam, microphone, and internal and/or external computer speakers in order to participate in group discussions, create and upload video submissions, listen to live or pre-recorded lectures and videos, etc. Please check with your instructor to ask what type of technology might be necessary in order to be successful in the course. Technology requirements may vary from class to class.



Visit the Canvas [browser and computer requirements page](#) and run their browser checker to make sure you are ready to go!

Other types of Technology Requirements to be a successful online student:

- A working black and white printer for assignments or a digital tablet, software and stylus for editing and saving a modified .pdf
- Ability to scan an upload paper documents as a .pdf (Dropbox and the Apple 'Files' app both have this ability)
- A color camera. Phone cameras and webcams are fine.
- Our class will specifically require the ability to convert and upload a printed or digitally downloaded document into a quality .pdf/photoshop document file. The quality of the document must be equivalent to the quality of the original document for grading purposes.
- You must have the ability to seamlessly run a Zoom based meeting with video and audio for scheduled class meetings.
- YouTube proficiency and ability to skip an ad or two.
- Reliable word processing software such as MS Word. UNM students can download MS Office 365 for free. [Details on what it is and who is eligible.](#)
- Please note that Mac Pages and Google doc files are not accepted for submitted assignments. Both programs have Export or Save as options that let you convert your work to .docx.
- Ability to view course materials by using Adobe Acrobat free file reader and MS Word.
- Regular and weekly access to [UNM Canvas](#) and your [UNM email](#) account.
- Possibly the ability to download and use [Kaltura Capture](#) or Adobe Premier Rush, Adobe's video editing tool. UNM students can download Adobe Premier Rush for free through [Adobe Creative Cloud](#). *Note: branch campus students should double-check to make sure your campus is participating.*

Essential Skills

Because this is a General Education Core course, activities will be incorporated into this course to support development of the following three essential skills that are required by NM/HED: *Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning*

Student progress in developing essential skills will be measured in assignments, discussions, and/or exams throughout the course.

What to Expect:

Our class is lecture and exercise based. We likely will perform dissections on both human and animal organs and whole organisms. Online options are available for those who do not wish to participate in the dissection exercises. All lectures from the adjacent lecture class are available on YouTube to help you prepare ahead of class. In addition, I will present material in person which may or may not be covered in lecture but may be required of you to know for the graded work and assessments of this course. We will go over case studies and example problems with our discussions, in-person class time and independently online. You may not have a quiz every week but you will have 7 quizzes, case study discussions, lab notebook checks, a midterm and a final practical. Assessments will be proctored either in person or by Respondus lockdown browser.

Grades and Grading Policies

Unless Otherwise Noted – ALL ASSIGNMENTS ARE LISTED ON THE SCHEDULE POSTED TO CANVAS SUBJECT TO CHANGE. Usually these are extensions due to server/ hosting issues and work in the students' favor.

Grades are typically comprised of no less than 70% Exams and Quizzes. Please make sure your Software and hardware is up to date and functional since extensions will not be granted if you have not maintained these essential tools.

Attendance, Participation

- a) **Attendance:** based on assignment completion. Students who fail to login at the beginning of the course may be dropped for non-attendance or non-participation. Students must demonstrate a record of course participation that is based on academically related activities in order to demonstrate “attendance” in the course. The minimum academically related activity for course participation which is here defined as timely completion of assignments by their due dates or responses requested by the instructor via email or in class.
- b) **Participation:** based on assignment completion. Students’ academically related activities will be tracked via methods that are described by the instructor in the course syllabus and schedule.

Spelling can affect your grade. If a word sounds about right and has the same number of syllables it will be counted as correct. However, be forewarned there are several words (e.g., perineal & peroneal) that look and sound similar. If you write the wrong word, it is wrong.

You should discuss any planned absences or problems regarding attendance with me. In addition, you should talk with me as soon as possible any time you miss more than one class or if you fail to complete assigned work.

Extra Credit:

If extra credit is offered it will not exceed 5% of the total grade. If extra credit is offered it will be to the entire class.

PLAGIARISM --- if you copy an answer (75%+ word for word) from the book, internet, or my PowerPoint slides, you will get a **ZERO** on the ENTIRE assignment.

Other Requirements:

- Students are responsible for all materials covered in class and in the reading assignments. Some book material that is not covered in class may still appear on examinations.
- Students are expected to do their readings before class.
- Students may be expected to seek out information on web sites or other books to further their understanding of the material covered in class.
- Students themselves are responsible for seeking information on any assignments that may have been given out during their absence.

Respondus lockdown browser

Assessments (see more below) will be completed in class using the Respondus lockdown browser. You will either need a laptop or an iPad to use this. More information about downloading and using Respondus can be found here: <https://canvasinfo.unm.edu/external-apps/respondus-ldb-index.html>

Dropping the Class:

The Instructor will likely drop students for inactivity of 1 or more weeks or inappropriate/aggressive behavior toward the instructor or other students. However, students wishing to be dropped from the course should be aware that it is their responsibility to remove drop themselves from the course. Elective drops must be performed by the students and before the expiry of the institutional drop dates.

Due Dates

All homework, discussions and exams are due according to the posted schedule. Essentially, listed items are due by 11:59pm of the listed due date. Often the Final Exam is due either the Monday or Thursday of finals' week- so don't miss it!!

Grading

Total Points refers to the total points capped. Some categories have a higher possible total points but points earned above the Total Points number cap are considered to be dropped items

Extensions can be granted with documentation of an institutionally recognized cause, such as providing a doctor's note after an illness. Documentation is required in order to evidence that the instructor is providing equitable treatment for all students.

If you miss an assignment or quiz, please note that I do drop 25 pts prior to the calculation of the overall course grade.

Graded Items

System Quizzes: They are meant to help students review the material of the class while practicing the style of the upcoming proctored exams. In person quizzes will mirror the in person practical exams and the online ones will mirror the online versions of the practical. The online quizzes and exams will require Respondus Lockdown browser and all assessments are Closed Book/Notes.

Syllabus Quiz: You need to be well acquainted with the syllabus. You will have a single syllabus quiz in the first week of the term to ensure you know the plan.

Safety Contract: Students will be required to review, disclose, sign and adhere to the lab safety contract as well as all requirements made by the instructor in consideration to maintain order and safety for everyone in the classroom. Individuals that refuse or act against the Safety Contract, OSHA or guidelines given by the instructor may be asked to leave the class immediately, be dropped or face other disciplinary action within or outside of the institution.

Practical Exams, CLOSED NOTES/BOOK AND PROCTORED

- The purpose of these exams is to evaluate where you are in understanding the details of the concepts in the units of the material. See grading table for a description of the how many there are, when they are scheduled, and how many are dropped (low scores dropped).
- You will be required to synthesize material from more than one source.
- Exam questions are based on material presented in your IN CLASS-in class lab exercises and will often come from the in-class quizzes. You will need to have a reliable working proficiency with the sample slides used on the light microscopes and models/dissections performed over the course
- Some material will come from our Powerpoints, in-class or video lectures, class activities, and Lab Books.
- Format: short answer, essay, objective, multiple choice, T/F, and matching questions. Each student who elects to take the online practical will receive a randomly generated set of questions from a very large pool of possible questions. No one will get the same exam question set.
- MAKE SURE the computer you use is reliable and the internet connection is reliable. If you fail to take the exam during that open window then you will get a zero for the exam. There will be no make-ups or extensions. Please consider taking them at one of the Respondus Ready computer labs at the school. Plan ahead to ensure that a Respondus Ready computer will be available on the time/day that you are planning to take your assessment(s)
- All exams are AUTOMATICALLY set to double time. This should automatically accommodate all students with Accommodation letters.

- You will be using Respondus Lockdown Browser and Monitor. Both require a download of software and Monitor requires a webcam. See the Electronics requirements section of the syllabus for further details. Links to these will be located on Brightspace course shell as well
- Online exams are subject to recording and future review. All exams are closed books and closed notes.
- If something locks up during a Brightspace exam IMMEDIATELY email me so I can reset the exam for you before the testing window closes. DO NOT wait until the last minute to take the exam.

Final Exam (Multiple Choice, Cumulative, Online with Respondus) – this multiple choice exam is cumulative. Questions will cover major themes from the course. Each student will get a randomized, unique set of exam questions from a larger pool.

Grading Categories	Points per Assignment (Some exceptions/are indicated on assignment)	Total Points*
Final Exam	100	100
Midterm Exam	100	100
Quizzes -7	10	70
Discussions – 2	20	40
Lab Notebook Checks -Lab Manual Page Uploads - 2	100	200
Syllabus Quiz,	10	10
Total Points		520
Points dropped		20
point total for final grade		500

For this class grade:	You need this percentage:	Points needed for listed letter grade
A	90 - 100%	445 and above
B	80 – 89%	395-444
C	70 – 79%	345-394
D	60 – 69%	295-344
F	< 60%	294 and under

Academic Honesty

Students should consult the UNM Student Handbook (available on UNM bookstore or from the administration upon request) for a complete explanation on Academic Dishonesty. Students who commit any form of academic dishonesty on an assignment may be assigned a grade as severe as a “0” or “F” for this assignment by the instructor, or will be informed by the instructor that the Dean of

Students will be contacted to coordinate a more severe penalty for the offense (e.g. an “F” for the course, or removal from a program - in the case of limited entry programs such as exist in Health Occupations). In the latter case, a centralized record of the student’s academic dishonesty incident will be maintained within the Dean of Students Office so that, if future incidents are reported, patterns of behavior can be identified and sanctioned more severely. Sanctions that may be imposed include disenrollment from the course, suspension from campus, expulsion from the institute, and other administrative actions.

The following are some forms of cheating:

- Copying a fellow student’s work or copying a previous student’s work.
- Notes written on body parts, clothing, cheat sheets, etc... at the time of a test.
- Any form of communication with your neighbor during a test.
- Talking to anyone but the instructor or proctor during a quiz or examination.
- Communicating via cell phones with other people during a test.
- Notes or books open during in-class exams and quizzes.
- Disclosing or soliciting examination questions to those who may have been absent from an exam.
- Plagiarism (copying entirely or whole phrases from books or websites).
- Any two students handing in assignments with word-for-word responses.

You are expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty on quizzes, tests, or assignments; claiming credit for work not done or done by others (plagiarism); and hindering the academic work of other students. A brief guide to what constitutes plagiarism and how to avoid it can be found here: <https://www.unm.edu/~unmvclib/plagiarism.html> .

You should take care not to leave your computer or thumb drive where others can steal or copy your work or make your files “public.” When using a public computer, you should make sure that you erase your work from the computer and remove your thumb drive.

Course Communications

Basically, I’m on email. Lobomail to be exact. I check it all of the time. If you email me on Friday afternoon and I don’t get back to you until Monday evening – which may happen since that is my usual longest weekly response gap 72 hours over the weekend and 48 hours over the weekdays. We need to keep all communications to Lobomail and Zoom meetings so I will not be responding on messaging apps, gmail, Hotmail. Texts etc.

Unexpected Class Cancellations

If the class has to be canceled due to my illness or an emergency, I will attempt to notify you by email, text, or phone, but that may not be possible. If I’m not present at the beginning of class, you should wait 15 minutes (in case I am simply late), then go to the Office of Instruction (Bldg 6) to see if they have information (available 8-5 M-F). **If there is no information, you should assume that class has been canceled for the day and that you are free to leave.**

Online classes are asynchronous and unlikely to be cancelled. Should that occur, announcements will be posted in canvas.

Virtual Classroom, Recording Policy, and Student Privacy

In order to provide the best educational experience, this course includes virtual classroom sessions that may be recorded via a web conferencing app. Recordings of sessions may be shared with other

students through our learning management system: Canvas, Zoom or YouTube. The fact that you are attending this class may possibly become known to other people.

If you wish to remain anonymous to students outside of your class, you may opt-out of attending the live sessions or remain anonymous during the live session. An explanation of the recording policy and your privacy options are below.

Recordings Policy

- Recordings of virtual classroom session will most often be made this term via the app **Zoom**.
- Links to the videos are likely to be posted online.
- Multiple sections of the same course may be sharing the same videos from online office hours.
- A password may be required to enter a **Zoom** session.

Student – Privacy and Rights

- For any interactive, web conferencing session that may be recorded, you may choose to not attend the live session and instead watch the recording at a later time, or you may choose to *attend the live session with anonymity*.
- To Protect your Privacy, be anonymous, during a virtual classroom session you may choose to:
 - Not use or display your name
 - Not show video of yourself
 - Not use the audio option for speaking
 - Use the chat box to ask questions without showing your name

Campus Closings and LoboAlerts

Class will be canceled if UNM-LA closes (e.g., in case of bad weather). Here are several ways to check for closing:

- Call the University switchboard at 505-662-5919 or 1-800-894-5919 and listen for a recorded announcement.
- You can receive a text message about campus emergencies via LoboAlerts. Confirm that you are signed up to receive notifications on <http://loboalerts.unm.edu>.

Weather and road conditions vary a lot from place to place in this region, and if you feel that it is unsafe to drive to campus from where you live or work, even if classes have not been canceled, notify me about the reason for your absence, and we'll work it out. Don't jeopardize your safety.

American Disabilities Act

"In accordance with University Policy 2310 and the American Disabilities Act (ADA), reasonable academic accommodations may be made for any qualified student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as the instructor is not legally permitted to inquire. The student is responsible for demonstrating the need for an academic adjustment by providing Student Services with complete and appropriate current documentation that establishes the disability, and the need for and appropriateness of the requested adjustment(s). However, students with disabilities are still required

to adhere to all University policies, including policies concerning conduct and performance. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Services at 505-661-4692 for additional information." The UNM Accessibility Resource Center's web site is at this link: <http://as2.unm.edu>

Information about Canvas Accessibility is available here:
<https://www.instructure.com/canvas/accessibility>

5. Academic Policies

Visit <https://pathfinder.unm.edu/>
for important academic policies on:

- Computer requirements
- Campus computer account
- Technical support
- Academic support
- UNM Drop policy
- Sexual misconduct policy

Study Time

For every hour "in-class" a student should set aside another 4 hours of study time outside of class. This course has 4 contact hours. This translates to a minimum of 8 hours a week of study time outside of lab/class for a total of 12 hours. Most likely you will really need **17-21 hours a week**.

Online Etiquette

This course will require moderate online interaction. Students are required to treat other individuals with the same level of respect that they would in the live classroom. Do remember that there is a person at the other side of a discussion posting, online office hours, etc. when posting a response, question, or e-mail. In addition, you are responsible to make a sincere effort that all online postings, e-mails, etc. use the level of spelling and grammar and courteous tone that is expected in a professional college setting.

Course Schedule for Bio 2210L API Majors UNM Spring 2024

* Since There are many drops in this course, there are no extensions.

WEEK	DATE	TOPICS, <i>Lab Book Sections to Bring to Class</i>	Graded Items- Due Sunday at 11:59 pm
1	1/15-1/21	<p>Read the Syllabus (online) No in person class meeting Set up Respondus Lockdown Browser – use Quiz 1 – Syllabus to make sure you are up and running Print out the Lab Book Section 1 for next week and start working on it</p> <p><i>API Lab Book - Section 1 Orientation, Organ Systems, Anatomical Terms, Safety</i></p>	<p>No class meeting No in person class meeting Set up Respondus Lockdown Browser – use Quiz 1 – Syllabus to make sure you are up and running</p>
2	1/22-1/28	<p>Introduction to Anatomy and Physiology, Histology</p> <p><i>API Lab Book - Section 1 Orientation, Organ Systems, Anatomical Terms, Safety</i></p> <p><i>API Lab Book - Section 2 Histology, Epithelium and Connective Tissues</i></p>	<p>Quiz 1 – Syllabus (online only)</p>
3	1/29-2/4	<p>Histology, Integumentary System</p> <p><i>API Lab Book - Section 2 Histology, Epithelium and Connective Tissues</i></p> <p><i>API Lab Book - Section 3 - Integumentary System</i></p>	<p>Quiz 2- Intro to AP</p>
4	2/5-2/11	<p>Intro to Osseous Tissue, Skull Lab Book Check 1</p> <p><i>API Lab Book - Section 4 – Osseous Tissue and the Axial Skeleton</i></p>	<p>Quiz 3- Histology Lab Book Check 1 – Sections 1-3</p>
		<p>Vertebral Column and Bony Thorax, Forelimb Bones</p>	

5	2/12-2/18	<p style="text-align: center;"><u>Forelimb Bones</u></p> <p><i>API Lab Book - Section 4 – Osseous Tissue and the Axial Skeleton</i></p> <p><i>API Lab Book - Section 5 - Appendicular Skeleton</i></p>	Quiz 4- Integumentary
6	2/19-2/25	Forelimb Bones, Lower Limb Bones, Articulations/Joints	

		<p><i>API Lab Book - Section 5 - Appendicular Skeleton</i></p> <p><i>API Lab Book - Section 6 - Articulations - Joints</i></p>	
7	2/26-3/3	<p style="text-align: center;">Lower Limb Bones, Joints</p> <p><i>API Lab Book - Section 5 - Appendicular Skeleton</i></p> <p><i>API Lab Book - Section 6 - Articulations - Joints</i></p>	<p>Quiz 5 -Bone</p> <p>Quiz 6 - Joints</p>
8	3/4-3/10	Midterm Sections 1-6	Midterm Sections 1-6
9	3/11-3/17	Spring Break	Spring Break
10	3/18-3/24	<p>Intro to Muscles, Muscles of the Face, Neck and Torso, Upper Limb Muscles</p> <p><i>API Lab Book – Section 7 – Muscle Tissue and the Muscles of the Face, Neck and Torso</i></p> <p><i>API Lab Book – Section 8 – Selected Muscles of the Arms and Legs</i></p>	Midterm Discussion
		Upper Limb Muscles, Lower Limb Muscles	

11	3/25-3/31	Upper Limb Muscles, Lower Limb Muscles <i>API Lab Book – Section 8 – Selected Muscles of the Arms and Legs</i>	
12	4/1-4/7	Lower Limb Muscles <i>API Lab Book – Section 8 – Selected Muscles of the Arms and Legs</i>	*possibly online lab this week
13	4/8-4/14	Neurons and Nerves, Brain (lite poss.) <i>API Lab Book – Section 9 – Neurohistology, Brain and the Spinal Cord</i>	Quiz 7 -Muscle *possibly online lab this week
14	4/15-4/21	Brain, Spinal Cord <i>API Lab Book – Section 9 – Neurohistology, Brain and the Spinal Cord</i>	
15	4/22-4/28	Spinal Cord, Cranial Nerves Lab Book 2 Due <i>API Lab Book – Section 9 – Neurohistology, Brain and the Spinal Cord</i> <i>API Lab Book – Section 10 – The Cranial Nerves and Selected Special Senses</i>	Lab Book Check 2- Sections 4-8

16	4/29-5/5	Cranial Nerves, Selected Special Senses <i>API Lab Book – Section 10 – The Cranial Nerves and Selected Special Senses</i>	Quiz 8 – Nervous System, Final Discussion
17	5/6-5/12	Final Exam Sections 7-10 <i>*Online Make up Final Due Thursday by 11:59pm</i>	Final Exam Sections 7-10

*Topics or assignments may change as needed including any switch to remote options in the event of a n instructor absence prolonged campus closure. Announcements regarding such changes will be made during regular class hours. Students who are absent or tardy when such announcements are made will still be held accountable for the changes.

Schedule of online materials should you not be able to make it to the in-person class