# Human Anatomy & Physiology Lab J Biology 247L; 501 – Tuesday 10:30-1:15 – H113

# Fall 2015

Instructor	Dr. Melanie Sanchez-Dinwiddie
Office	Room 132, Academics Building
Office hours:	I am here for <i>you</i> to succeed. If you need to see me outside of class please stop by anytime or schedule an appointment. I will be in my office during the following scheduled times: Tuesday & Thursday 1:30-3:30.
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# **Course Description:**

This course is a one hour credit biology lab to be taken with or after BIOL 237. It is a laboratory using human cadavers. Anatomy is stressed with appropriate physiological works.

# **Required Text**:

Marieb, Elaine. Anatomy & Physiology. Custom edition. New York: Pearson, 2015.

# **Student Learning Objectives:**

At the completion of this course the student will be able to:

- recognize and demonstrate anatomical and physiological terminology,
- analyze anatomical and physiological features of the integumentary, skeletal, muscular, and nervous systems on a figure, model, or human cadaver.

### **Course Requirements:**

**Attendance.** Attendance is necessary for you to participate in lab as well as to fully understand the material presented. This means getting to class on time and completing the exercises covered. I do not recognize an excused absence versus an unexcused absence. You are either here or not. After three absences you will most likely be dropped from the class. You will be held responsible for all material and information regardless of whether were present.

UNM Learn. This is where you will find course materials and pre-class assignments: learn.unm.edu.

- Course syllabus
- Exam study guides
- Quiz question submissions
- Pre-lab assignments
- Email for instructor and classmates
- Gradebook

**Withdrawal.** If a student drops the course after the deadline to drop without a grade, Friday, September  $4^{th}$ , a grade of W <u>may</u> be given. It will be at the instructor's discretion whether a W will be granted. This means by withdrawing you may earn a grade of F.

**Financial Assistance.** It is the student's responsibility to know policies for funding their education. It is the student's responsibility to maintain funding for their education.

Make-up Exams. There are no make-up exams in this course. Make-up quizzes are given at the instructor's discretion.

**Cell phones.** As a courtesy to the class, please turn off all cell phones. Do not text message during class (this is highly annoying and I can see you). Any sight of a cell phone during exams or quizzes will result in an automatic fail for that assignment.

Food. There will be NO Food or Drink in the lab room.

**Human cadavers.** I understand there will be some of you who are uncomfortable in working with human cadavers. The amount of interaction I will require with the cadavers is on the midterm and final exams. No person will be exempt from the examination material. We must maintain the highest level of safety in the cadaver laboratory. You will be required to enter with a laboratory coat (provided by UNMVC). Keep long hair tied back. Make every effort not to contaminate you and/or your belongings. Absolutely under no circumstance will a cell phone be allowed in the cadaver laboratory. Please be courteous to these individuals at all times.

#### Special Needs:

Qualified students with disabilities needing appropriate academic adjustments should contact the instructor by the end of the 1<sup>st</sup> week of the semester to ensure that your needs are met in a timely manner.

#### Academic Dishonesty:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards.

Grading policy: The course grade will be determined as follows:

Quizzes (5 out of 6)	25%
Quiz submissions	5%
Pre-lab assignments	10%
Midterm	25%
Final Exam	30%
Lab Attendance	5%

#### Pre-lab assignments:

You are required to read the chapter that is to be presented in class *prior* to class and answer questions that address the material. During class I will have designed activities that requires you to discuss information, use the material, or solve problems. In order for this to benefit you the most you will need a basic understanding of the material being addressed. The pre-lab assignments are designed to prepare you for in class activities and therefore are due by class time. If you miss the pre-lab assignment for that day there is no make-up opportunities. In every pre-lab assignment the first question will ask: "Choose the learning objective you find most important and discuss why you have chosen that learning objective as most important." In every pre-lab assignment the last question will ask: "After reading this chapter EXPLAIN what is unclear." I will be grading these questions based on effort, and thought.

#### Bloom's Taxonomy:

Dr. Benjamin Bloom was a psychologist who worked on theories of education and learning. He was one of the first to publish a system for the classification of learning objectives. Since that publication (1956) that classification has been modified and improved. The aim of using "Bloom's Taxonomy" in this course is to achieve a higher level of learning and thought process. As an instructor I will construct this course with Bloom's Taxonomy in mind. I have provided Bloom's Taxonomy here. You do not need to memorize this list however, an understanding of the following list will benefit you.

Cognitive Process	What the Learner Does	Action Verbs for Cognitive Process	Examples
Remember	Recalls or recognizes information: facts, definitions, generalizations.	List, describe (from memory), name, label, repeat, recall, identify, state, select, match, know, locate, recognize, observe, choose, who, what, where, when, cite, define, indicate, memorize, outline, record, relate, reproduce, sort	-List the four biological molecules. -Identify the muscles of the forearm.
Understand	Constructs meaning by interpretation, classification, comparing, explaining, summarizing.	Arrange, associate, clarify, compare, convert, demonstrate, diagram, discuss, estimate, explain, extend, generalize, illustrate, organize, outline, paraphrase, restate, review, relate, sketch, summarize, translate, transform, similarities and differences, give examples	-Illustrate the four biological molecules. -Explain the function of cellular respiration.
Apply	Use methods, concepts, principles and theories in new situations; solve realistic problems that require the identification of issues and use of appropriate generalizations and skills.	Apply, calculate, change, collect, compute, construct, demonstrate, develop, employ, graph, illustrate, interpret, investigate, manipulate, modify, operate, practice, predict, prepare, produce, schedule, sketch, solve, use	-Produce a chart of the presence of the four biological molecules in a food sample. -Predict the action of a forearm muscle.
Analyze	Identifies how parts relate to one another or to a larger structure or purpose; considers available evidence to reach a conclusion, inference or generalization.	Analyze, appraise, break down, criticize, debate, deduce, detect, deconstruct, determine evidence and conclusions, discriminate, dissect, distinguish, examine, experiment, focus, find coherence, interpret, investigate, infer, inspect, inventory, map, question, relate, research, select, separate, structure, survey, test	-Interpret the results of an experiment to identify the four biological molecules. -Relate the structure of a protein to its function.
Evaluate	Judges the value of something by setting up criteria, processes, or standards and then determining how closely the idea or object meets the standards.	Coordinate, judge, select/choose, decide, debate, evaluate, justify, recommend, verify, monitor, the best way, what worked, what could have been different, what is your opinion, appraise, assess, conclude, criticize, discriminate, estimate, grade, prioritize/rank, rate, revise, score, support, value	-Evaluate why bone is composed of mostly minerals and not biological molecules. -Support your answer.
Create	Brings together parts to form a new whole or solve a problem that requires new creative thinking (at least new to the learner).	Create, hypothesize, design, construct, invent, imagine, discover, develop, induce, bring together, compose, pretend, predict, organize, plan, modify, improve, suppose, produce, set up, propose, formulate, solve (more than one answer), arrange, assemble, combine, devise, generate, manage, perform, prepare, dramatize, paint, compose, rearrange, reconstruct, relate, reorganize, revise, argue for, speculate	-Design an experiment to investigate the presence of biological molecules in a food sample. -Construct an argument for the necessity of phospholipids in a cell membrane.

Week	Date	Class Agenda	Quiz Schedule
1	Aug. 18	Language of Anatomy Organ Systems Overview	
2	Aug. 25	Classification of Tissues	Quiz #1
3	Sept. 1	The Integumentary System	
4	Sept. 8	Overview of the Skeleton	Quiz #2
5	Sept. 15	The Axial Skeleton The Appendicular Skeleton	
6	Sept. 22	Articulations and Body Movements	Quiz #3
7	Sept. 29	Midterm Exam	
8	Oct. 6	Microscopic Anatomy & Organization of Skeletal Muscle Gross Anatomy of the Muscular System	
9	Oct. 13	Gross Anatomy of the Muscular System	
10	Oct. 20	Gross Anatomy of the Muscular System	Quiz #4
11	Oct. 27	Histology of Nervous Tissue Gross Anatomy of the Brain and Cranial Nerves	
12	Nov. 3	The Spinal Cord and Spinal Nerves	Quiz #5
13	Nov. 10	General Sensation	
14	Nov. 17	Special Senses: Anatomy of the Visual System Special Senses: Visual Tests and Experiments Special Senses: Hearing and Equilibrium	Quiz #6
15	Nov. 24	Open lab	
16	Dec. 1	Final Exam	