

ANATOMY AND PHYSIOLOGY

BIO 225 and 225L- Fall 2010 (4 credit hours)
Location: Kettering 129 (Lect), Kettering 327 (Lab)
Time: 12-12:50 MWF (Lect), 1-2:50 or 3-4:50 M (Lab)

Instructor:	Dr. Mason Posner Kettering 320	E-mail:	mposner@ashland.edu
Office Hours:	By appointment – can be set in class or at http://tungle.me/masonposner		
Lab TA:	Mr. Colton Penwell	E-mail:	jpenwell@ashland.edu

Prerequisites: Bio 202

Course Description: This course is designed to impart the in-depth knowledge of anatomy and physiology needed by pre-professional students planning careers in the medical or allied health fields as well as those interested in graduate study.

Course Objectives:

- Gain an understanding of the structure and function of the human body
- Integrate knowledge from freshman level courses into more complex biological concepts
- Develop the ability to master large numbers of new terms
- Further develop your ability to search and analyze the scientific literature
- Develop skills in scientific writing
- Learn dissection techniques and methods in experimental physiology
- Become more comfortable with online collaborative tools

Grading: Your grade will depend on the following work:

Three 1-hour exams. These will cover the lecture material and any extra reading assigned during class, including material from the course blog. Material in the textbook not covered in lecture will **not** be covered on the exams. However, some material on the exams might not be in the textbook.

Final exam. This exam will cover lecture material from the entire semester. If your grade on the final exam is higher than your lowest midterm, the higher grade will be substituted for that midterm exam. For example, if you received a 70%, 85% and 94% on your three midterms, and your final exam was a 90%, this score will replace the 70% you received earlier in the semester. If the final exam is your lowest grade of the semester, no grades will be replaced. If you miss a regular exam your percentage on the final will be used in its place.

Collaborative project. More about this later.

Three lab practicals. These exams will cover material presented in lab. You will need to identify both microscopic and macroscopic structures and answer conceptual questions about how these structures relate to human physiology. You will also be asked to interpret data collected in lab.

Written Assignments. We will be reading review and primary literature articles. Questions based on these articles will be passed out and discussed in class. You will also be expected to participate in blog discussions about course material and anatomy and physiology in general.

Three quizzes covering lecture material will be taken either in lab or online. These quizzes can be unannounced.

Participation. Your active participation in both lecture and lab activities will make up 25 points of your grade.

Point summary:

Lecture (3 exams @ 100 points/each)	300
Lab Practicals (3 @ 25 pts/each)	75
Final exam	100
Collaborative project	50
Quizzes (4 @ 10 points/each)	40
Written assignments (vary in points)	60
<u>Participation</u>	<u>25</u>
Total	650

Your final grade will be based on the percentage of the total possible points you obtain in class as follows:

90% - 100%	=	A- or better
80% - 89%	=	B- or better
70% - 79%	=	C- or better
60% - 69%	=	D- or better
0% - 59%	=	F or better

Resources and what to do with them:

Course web page: www.masonposner.com. Contains links to assignments, lecture notes, podcasts and web resources. Get in the habit of checking it often.

Lecture Notes: You will find the outlines for each of the lectures on the course webpage. Printed copies will be handed out to you in class for the following week. **Always bring the notes for that day's lecture plus the next lecture in case we move ahead.** These outlines will not cover all of the material presented in lecture, and are not a replacement for coming to class. By providing some of the lecture material ahead of time, we will be able to cover more in class. **You are strongly encouraged to look over these outlines before each class.**

Textbook - Saladin, K.S. 2009. Anatomy and Physiology: The unity of form and function, 5th edition. Skim over the relevant text and figures prior to each lecture using the lecture notes as a guide to what we will be covering. Read the text in more detail after each lecture.

Virtual Cadaver CD- Anatomy and Physiology Revealed 2.0. This will be our human cadaver for the lab portion of the class, and it can be used on your own computer as well. Also a good source for animations, quizzes and pronunciation help.

Course blog: www.ashlandanatomy.blogspot.com. I will post follow-up information to lectures and student questions on the course blog, and you will be contributing some posts and comments.

Angel course page: You will submit written assignments through this page. You will also take some online quizzes on the site, and I may use Angel to send course announcements.

Course Policies

Attendance: 25 points of your grade will come from participation in class. While you will not lose points for missing lecture, you suffer the risk of missing important information for exams, and opportunities to gain participation points. You **must** attend lab. Missed labs will affect you in several ways: you will lose participation points, you will miss material reviews and you will not be prepared for the lab practicals. Only with an excused absence can a lab be made up at another time.

Technology Policy: We will be using several online technologies this semester, including online submission of papers. Technology mishaps are not an emergency, but a regular part of using online systems and computers. You are responsible for submitting your work in sufficient time to accommodate potential network outages or computer mishaps. Crashed computers, downed networks and virus attacks are not a valid excuse for late assignments. Save often, back up your work and be prepared (I recommend the free online web service called Dropbox – www.dropbox.com). Papers cannot be submitted by email.

Excused Absences: An absence will only be excused if: 1. You have a letter from university health services or a private physician stating that you were unable to attend class for health reasons. 2. You will be travelling for a University sponsored event. This must be brought to my attention before the absence so that alternate arrangements can be made. If you miss an exam due to an excused absence it is up to my discretion whether you take the exam on a different date or replace that score with the final exam grade.

Late Work: Assignments submitted late due to an excused absence (see above) will be accepted on a case-by-case basis. Otherwise I will take off 10% of the total points for each day an assignment is late.

Disability Services: Students with documented disabilities who require academic adjustments for this class are requested to contact me to discuss reasonable accommodations. While not required, it is in the best interest of the student to have this conversation early in the semester. In order to receive academic adjustments paperwork from Disability Services must be provided to document this need. Disability Services is located in 105 Amstutz, extension 5953.

Academic Integrity Policy: Any student cheating on or plagiarizing an assignment will receive an “F” on that assignment, will be reported to the registrars office, and may be expelled from the University. Your student handbook defines plagiarism as follows:

“Plagiarism is the intentional or unintentional presentation of someone else's words, ideas or data as one's own work. In the event the faculty member deems the plagiarism is unintentional he/she shall typically require the student to rewrite the assignment. In the event the faculty member believes the plagiarism is willful, the sanctions in this document will apply. If the work of another is used, acknowledgment of the original source must be made through a recognized reference practice, and, if verbatim statements are included, through quotation marks as well. To assure proper crediting, a student will acknowledge the work of others:

1. Whenever one quotes another person's actual words.
2. Whenever one uses another person's idea, opinion or theory, even if it is completely paraphrased in one's own words.
3. Whenever one borrows facts, statistics, or other illustrative materials-unless the information is of such common knowledge so as not to be questioned.”

I will assume that you are knowledgeable of the definitions of plagiarism!

Note: Although it is not technically plagiarism, do not extensively quote material from primary sources in your assignments. Use your own words unless there is absolutely no other way to avoid the original words of the author.

TENTATIVE LECTURE SCHEDULE

Day	Reading	Topic	Lab
Aug 23	Ch 1	History of A & P	Intro/terminology
Aug 25	Ch 1	Human Origins and Adaptations/Homeostasis	
Aug 27	Ch 1	Human Origins and Adaptations/Homeostasis	
Aug 30	Ch 3	Cellular Form and Function	Cells and diffusion
Sep 1	Ch 3	Cellular Form and Function	
Sep 3	Data analysis/Paper discussion (cell physiology)		
Sep 6	Ch 3	Cellular Form and Function	Diffusion experiments/epithelia
Sep 8	Ch 5	Histology	
Sep 10	Ch 5	Histology	
Sep 13	Ch 5	Histology	Connective, nervous and muscular tissue
Sep 15	Ch 6	Integumentary System	
Sep 17	**Exam 1**		
Sep 20	Ch 6	Integumentary System	**Lab Practical #1**
Sep 22	Ch 7	Bone Tissue	
Sep 24	Ch 7	Bone Tissue	
Sep 27	Ch 8	Skeletal System: Skull	Skin/Skull
Sep 29	Ch 8	Skeletal System: Skull	
Oct 1	Ch 8	Skeletal System: Spinal Column	
Oct 4	Ch 8	Skeletal System: Appendicular	Axial Skeleton/ Appendicular Skeleton
Oct 6	Paper Discussion (skeletal physiology)		
Oct 8	Ch 9	Joints	
Oct 11	Ch 9	Joints	Appendicular Skeleton/ Joints
Oct 13	Ch 11	Muscular Tissue	
Oct 15	Ch 11	Muscular Tissue	
Oct 18	**No Classes – Fall Break**		**No Lab**
Oct 20	Ch 11	Muscular Tissue	
Oct 22	**Exam 2**		
Oct 25	Ch 11	Muscular Tissue	**Lab Practical #2**
Oct 27	Paper Discussion (muscle physiology)		
Oct 29	Ch 10	Muscular System	
Nov 1	Ch 10	Muscular System	Muscles/EMG
Nov 3	Ch 12	Nervous Tissue	
Nov 5	Ch 12	Nervous Tissue	
Nov 8	Ch 12	Nervous Tissue	Nervous system physiology
Nov 10	Ch 12	Nervous Tissue	
Nov 12	Paper Discussion/review		

Nov 15		**Exam 3**	Brain/Spinal cord
Nov 17	Ch 13	Spinal Cord, Nerves and Reflexes	
Nov 19	Ch 13	Spinal Cord, Nerves and Reflexes	
Nov 22	Ch 14	Brain and Cranial Nerves	**Lab Practical #3**
Nov 24		**Thanksgiving break – no class**	
Nov 26		**Thanksgiving break – no class**	
Nov 29	Ch 14	Brain and Cranial Nerves	TBD
Dec 1	Ch 14	Brain and Cranial Nerves	
Dec 3	Ch 14	Brain and Cranial Nerves	

FINAL EXAM: Wednesday, December 8th, 1:30-3:30 pm

What to do if you have a question:

- Ask it in class or lab
- Email me – I will generally get back to you that day
- Do you need an immediate answer?
 - Try the chat link on the course site
 - Text me
- Want to start a discussion with your question?
 - Post it to the course blog

NO DOUBLE DIPPING: Assignments done for this course cannot be used in other courses. Likewise, you cannot use assignments from other courses to fulfill requirements of this course.

DON'T BE RUDE WITH TECHNOLOGY. Avoid texting in class – take it outside to the hallway if you need to respond to something. Using a laptop in class? Stay off of non-course related material during class.