January 10, 2011

ANATOMY AND PHYSIOLOGY

BIO 226 and 226L- Spring 2011 (4 credit hours)
Location: Kettering 327 (Lec and Lab)
Time: 12-12:50 MWF (Lect), 1-2:50 or 3-4:50 M (Lab)

Instructor: Dr. Mason Posner
Kettering 320
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Text: (330) 421-9552

Office Hours: By appointment – can be set in class or at http://tungle.me/masonposner

Prerequisites: Bio 201 and 225

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.

Four 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 @ 30 pts/each)	90
Final exam	100
Medical Innovation Study	100
Quizzes (4 @ 10 points/each)	40
Written assignments (vary in points)	~60
Participation	25
Total	**715**

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: Lecture outlines for the entire semester will be handed out on the first day of class. **Always bring the notes for each 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
Jan 10	Chapter 15	Autonomic Nervous System	ANS/General Senses/Data
Jan 12	Chapter 15	Autonomic Nervous System	Collection
Jan 14	Data analysis		
Jan 17	****MLK Day – No Lecture or Lab****		
Jan 19	Chapter 16	General Senses	
Jan 20	Chapter 16	Special Senses	
Jan 24	Chapter 16	Special Senses	Special Senses
Jan 26	Chapter 16	Special Senses	
Jan 28	Paper Discussion		
Jan 31	Chapter 17	Endocrine System	Endocrine System
Feb 2	****Exam 1****		
Feb 4	Chapter 17	Endocrine System	
Feb 7	Chapter 17	Endocrine System	****Lab Practical 1****
Feb 9	Chapter 18	Circulatory: Blood	
Feb 11	Chapter 18	Circulatory: Blood	
Feb 14	Chapter 19	Circulatory: Heart	Blood/Heart dissection
Feb 16	Chapter 19	Circulatory: Heart	
Feb 18	Paper Discussion		
Feb 21	Chapter 20	Circulatory: Blood Vessels	ECG/Blood Pressure
Feb 23		**Guest Speaker - Echocardiography**	
Feb 25	Chapter 20	Circulatory: Blood Vessels	
Mar 1	Chapter 21	Lymphatic/Immune system	****Field Trip****
Mar 3	****Exam 2****		
Mar 5	Chapter 21	Lymphatic/Immune system	
Mar 7-11	****Spring Break****		
Mar 14	Chapter 21	Lymphatic/Immune system	Respirometry
Mar 16	Chapter 22	Respiratory System	
Mar 18	Chapter 22	Respiratory System	
Mar 21	Chapter 22	Respiratory System	****Lab Practical 2****
Mar 23	Chapter 23	Urinary System	
Mar 25	Paper Discussion		
Mar 28	Chapter 23	Urinary System	Urinalysis
Mar 30	****CAS symposium – no class****		
Apr 1	Chapter 23	Urinary System	

Apr 4	Chapter 24	Water, Electrolyte and A.-B. Balance	Digestive System
Apr 6	Chapter 25	Digestive System	
Apr 8	****Exam 3****		
Apr 11	Chapter 26	Nutrition and Metabolism	Reproductive System
Apr 13	Chapter 26	Nutrition and Metabolism	
Apr 15	Chapter 27	Male Reproductive System	
Apr 18	Chapter 27	Male Reproductive System	****Lab Practical 3****
Apr 20	Chapter 28	Female Reproductive System	
Apr 22	****Easter Break – No Lecture or Lab****		
Apr 25	****Easter Break – No Lecture or Lab****		
Apr 27	Chapter 28	Female Reproductive System	
Apr 29	Chapter 28	Female Reproductive System	
	FINAL EXAM:	**Monday May 2nd 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.