Moravian College

Department of Biological Sciences

Anatomy and Physiology Lecture - BIO 103

Spring 2016

Instructor:	Dr. Hilary B. Christensen
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Office:	Collier Hall of Science, Room 125
Office Hours:	Mondays 10am-12pm, Fridays 10am-12pm and *by appointment*
Lecture:	MWF 8:55-9:45am, Collier 123
Laboratory:	Tuesday 8:30-11:30, Collier 300
Textbook:	Seeley's Principles of Anatomy and Physiology, 2nd Ed. by Philip Tate McGraw Hill Publishers
Lab Manual:	Laboratory Manual for Seeley's Principles of Anatomy and Physiology, 2nd Ed. by Eric Wise McGraw Hill Publishers
Dissecting Kits:	*Available in the Bookstore*

Course Description: This course offers an in depth anatomical and physiological study of the human integumentary, skeletal, muscular and nervous systems. Concepts and principles important to the understanding of the human body are addressed in lecture as well as case study assignments of clinical situations. Laboratory includes cat and organ dissections, microscope study of tissues and evaluation of physiological processes.

Course Objectives: Upon completion of this course, the student will be able to:

a) understand the human anatomy of the integumentary, skeletal, muscular and nervous systems
b) understand the relationships between structure and function in the various systems
c) recognize the different types of cells and tissues found in these systems
d) understand the physiological mechanisms behind the human body's response to normal and stressed situations
e) appreciate the complexity of living organisms through dissection of selected mammalian organs

Grading: The grading system is as follows:
(+/- will be administered as the professor deems appropriate)

A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 – 69

Your final grade will be based on the following criteria:

Three lecture exams:	100 points each =	300 points
Two lab exams:	100 points each =	200 points
Best ten lecture quizzes:	10 points each =	100 points
Final lecture exam:		200 points
Case study assignment:		100 points
Lecture participation and preparation:		100 points
	Total:	1000 points

** Both lecture material and textbook readings are fair game for lecture exams.
** The final lecture exam is cumulative.
** Case study assignment will be discussed as the course progresses.
** Please note: it is within the instructor's purview to apply qualitative judgment in determining grades for an assignment or the entire course

Expectations:

a) *Attendance:* Regular lecture and lab attendance is expected. Please be on time! **No** make-up exams will be given unless you have an acceptable reason (family emergency, illness, etc). If an emergency should arise, you must notify me prior to the lecture exam and **not** after. If you plan to miss a lab please notify Dr. Fox or Dr. Christensen in advance. Students are allowed a maximum of three absences in lecture and one absence in lab within this semester. If you miss class or lab more than the allowed times, 50 points will be deducted from your lecture or lab participation grade. Another 10 points will be deducted from your lecture or lab participation grades for each additional absence. **Please be aware that absences are not divided into excused and unexcused. Regardless of the reason, an absence from class or lab is counted as an absence**.
b) *Cheating:* will not be tolerated. Students will be held to the highest standards as specified by the Moravian College Honor Code. Violations of this code will be handled in the most severe manner allowed by college policy.
c) *Reading Assignments:* should be completed prior to lecture as well as lab.
d) *Lecture Quizzes*: A quiz covering the week's material will be given on **Fridays.** Make-up quizzes are not offered under any circumstances since only the top 10 are counted in your final grade.
e) *Lab Preparation:* You are expected to come to lab prepared for that day's exercise. For each lab session please bring your: textbook, lab manual, lecture notes and dissection kit.

f) *Extra Help*: If difficulties interpreting lecture or lab material arise, please contact your professor(s). Tutoring sessions can be arranged.
g) *Cell Phone/Technology Policy:* Please see attachment following schedule.

Tentative Lecture Schedule

Week of	Topic	Reading Assignment
Jan. 18	The Human Organism	Chapter 1
Jan. 25	The Chemical Basis of Life (Brief overview)	Chapter 2
	Cell Structures and Their Functions	Chapter 3
Feb. 1	Cell Structures and Their Functions (con't)	
Feb. 8	Tissues, Glands and Membranes	Chapter 4
Feb. 15	Integumentary System	Chapter 5
Feb. 17	**Exam 1** (Intro through Tissues)	
Feb. 22	Histology and Physiology of Bones	Chapter 6
Feb. 26	**No Class - Midterm**	
Feb. 29	Anatomy of Bones and Joints	Chapter 7
	Anatomy of Bones and Joints (con't)	
	Histology and Physiology of Muscles	Chapter 8
Mar. 5-13	**Spring Break**	
Mar. 14	Review of Muscle Physiology	
Mar. 21	Anatomy and Functions of Skeletal Muscles	Chapter 9
Mar. 23	**Exam 2** (Integumentary through Skeletal System)	
Mar. 24-27	**No Class – Easter Recess**	

Mar. 28	Anatomy and Functions of Skeletal Muscles (con't)	Chapter 9
Apr. 4	Anatomy and Functions of Skeletal Muscles (con't)	Chapter 9
	Functional Organization of Nervous Tissue	Chapter 10
Apr. 11	Central & Peripheral Nervous Systems	Chapter 11
Apr. 13	**Exam 3** (Muscular System)	
Apr. 18	Central & Peripheral Nervous Systems	Chapter 11
Apr. 25	Special Senses	Chapter 13
	Autonomic Nervous System	Chapter 14
May 2 **(11:30-1:30)**	**Final Exam**	

Technology and the Downside of Multitasking

Recently, the abundance of cell phones, iPads, laptops and other devices has produced something known as the "problem of divided attention". Articles in the New York Times, Harvard Mental Health Letter and Scientific American Mind all summarize several studies of productivity in business and medical settings. Researchers found that after responding to email or text messages, it took people more than 15 minutes to re- focus on the "serious mental tasks" they had been performing before the interruption and in some cases, this initial mental task was completely forgotten. Other research has shown that when people attempt to perform two tasks at once (e.g., following what's happening in class while checking text messages), the brain simply cannot perform these tasks equally. The brain must abandon one of the tasks to effectively accomplish the other. So, multi-tasking is not an efficient or productive way to learn or retain information.

Overall, the human brain works best when focusing on a single thread of related thoughts. By being fully engaged with the pursuit, you may experience a number of positive effects, such as more pleasure, faster learning or greater productivity. Perhaps even all three!

For this reason alone you should avoid the problem of divided attention when you are in this class. However, there is another, equally important reason to only use technology in an appropriate manner during our academic time together. As technology-users, we often lose our senses when it comes to customs of polite behavior, and the result is that perfectly charming people may become incredibly rude. So, for both these reasons, please turn off your cellphones or set them on silent/vibrate mode when you come to class. It is disrespectful for our activities to be interrupted by a ringing cellphone. Similarly, text messaging will not be tolerated in class. Any student found to be sending or checking text messages during class will be invited to make a choice either to cease the texting or leave the classroom.

Of course, you are welcome to bring your laptop and iPad to class and use them to take notes, access readings and slideshows, etc. You are not welcome to do social networking, check email, or otherwise perform non-class-related activities during our academic time together.

So, this is my best advice: If you are not using it to perform a task specifically related to what we are doing in class at that very moment, please put it away.

Thanks to Dr. C.A Finnegan, University of Illinois at Urbana-Champaign and Dr. M.C. Miller, Harvard Medical School

Students who wish to request accommodations in this class for a disability should contact the staff of the Academic Support Center on the first floor of Monocacy Hall, or by calling 610-861-14014. Accommodations cannot be provided until authorization is received from the Academic Support Center.

Professor reserves the right to amend this syllabus as the course progresses.