Moravian College

Department of Biological Sciences

Anatomy and Physiology - BIO 104

Spring 2016

Instructor:	Dr. Cecilia M. Fox Phone - 610-861-1426 E-mail - cfox@moravian.edu Office: Collier Room 316 Office Hours: W and Th 12:30pm-2:30pm and by appt.
Lecture:	Monday, Wednesday and Friday 8:55am-9:45am Collier 204 – Dana Lecture Hall
Lab:	3 sections: Monday, Wednesday or Friday 1:15-4:15pm Collier Hall of Science Room 300
Prerequisites:	Recommend: BIO 103 or by permission of instructor
Textbook:	Seeley's Principles of Anatomy and Physiology – 2nd edition by Philip Tate McGraw Hill
Lab Manual:	Laboratory Manual for Seeley's Principles of Anatomy and Physiology – 2nd edition by Eric Wise McGraw Hill
Lecture Notes:	Supplemental notes and PowerPoint presentations will be posted on our Blackboard site
Dissecting Kits:	Available in the Bookstore

Course Description: Biology 104 is part two of the Anatomy and Physiology course. This course offers an in depth study of the anatomy and physiology of human endocrine, circulatory, immune, respiratory, digestive, urinary and reproductive systems. Laboratory includes organ and whole animal dissections and evaluation of physiological processes.

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

a) understand the anatomy of the endocrine, digestive, respiratory, circulatory, immune, urinary and reproductive systems of the human body
b) comprehend the relationships between structure and function within each system
c) recognize the interrelationships among the varied 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 cats and selected organs of other mammals

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
Ten "best" lecture quizzes:	10 points each =	100 points
Case study assignment		100 points
Final lecture exam:		200 points
Class participation and preparation:		100 points
		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 in the lab sessions 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 lecture 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 exam and **not** after. If you plan to miss a lab please notify the professor 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 participation grade. Another 10 points will be deducted from your lecture participation grade for each additional absence. To receive credit for lab attendance you must be present at the start of lab AND when attendance is taken at the end of lab. Any early dismissals must be discussed with the lab professor prior to lab. **Please be aware that absences are not divided into excused and unexcused. Regardless of the reason, an absence from class is counted as an absence**.

a) 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.

b) Reading Assignments: should be completed prior to lecture as well as lab.

c) Lecture Quizzes: A quiz covering the week's material will be given on Fridays. **Make-up quizzes are not offered.**

d) Lab Preparation: You are expected to come to lab prepared for that day's exercise. For each lab session, be sure to bring your: lab manual, lecture notes and dissection kit.

e) Cell Phones and Pagers: Please turn them off (or at the very least, set on vibrate) before walking into the lecture hall and laboratory. **As a courtesy to your professor, do not type text messages during lecture and lab. If it is urgent, please simply leave the room to do your messaging. Thank you.**

f) Accommodations: Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located in the lower level of

Monocacy Hall, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

g) Extra Help: If difficulties interpreting lecture or lab material arise, please contact Dana Wilson of the Tutoring Center (wilsond@moravian.edu) to arrange for academic support. You are also welcome to stop by my office for assistance in learning the course material during my office hours.

Lecture Schedule

Week of:	Topic	Reading Assignment
January 18	Introduction Endocrine System - Hormones	Chapter 1 Chapter 15
January 25	Endocrine System - Pituitary Gland, Thyroid Gland, Adrenal, Pancreas, etc.	
February 1	Circulatory System - Blood	Chapter 16
February 8	Circulatory System – Heart	Chapter 17
February 10	**Exam 1** ***(Introduction-Endocrine)***	
February 15	Cardiac Cycle	
February 22	Circulatory System - Blood Vessels, Blood Pressure	Chapter 18
February 26	**Midterm of Semester**	
February 29	Immune (Lymphatic) System	Chapter 19
March 5-13	**Spring Break**	
March 14 & 21	Respiratory System Breathing Mech., Control of Breathing, Gas Exchange	Chapter 20
March 21	**Exam 2** ***(Cardiovascular-Immune)***	
March 24-27	**Easter Recess**	
March 28, April 4	Digestive System	Chapter 21
April 1	**Last Day for Withdrawal with "W"**	
April 4 & 11	Urinary System - Kidneys / Nephron, Urine Formation	Chapter 23

April 13	**Exam 3** ***(Respiratory-Digestion)***	
April 18	Urinary System – Elimination of Urine Reproductive System – Male	 Chapter 24
April 25	Reproductive System – Female Pregnancy	Chapter 24 Chapter 25
May 2 **(11:30am-1:30pm)**	**Final Exam**	

Laboratory Schedule

Week of:	Topic	Laboratory Exercise
January 18	Introduction Homeostasis Exercise	Exercises provided in lab
January 25	Endocrine System Endocrine Rat Lab	Exercise 24 Activity provided in lab
February 1	Circulatory System - Blood	Exercise 25, 26
February 8	Circulatory System - Heart Physio Ex. Activity	Exercise 27 Activity provided in lab
February 15	Circulatory System – Blood Vessels Cat Dissection	Exercises 30, 31
February 22	**Lab Practical 1**	
February 29	Blood Pressure Immune System	Activity provided in lab Exercises 33
March 7	**Spring Break – No Lab**	
March 14	Respiratory System Respiratory Volumes	Exercises 35, 36
March 21	**Easter Recess - No Lab**	
March 28	Digestive System Cat Dissection	Exercise 38
April 4	Urinary System – Anatomy and Urinalysis	Exercises 40,41

April 11	Anatomy of Reproductive System STD exercise	Exercises 42,43
April 18	Lab Review	
April 25	**Lab Practical 2**	

** As the professor of this course, I reserve the right to alter this syllabus at any time during the semester. **

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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