

Moravian College
Department of Biological Sciences
Anatomy and Physiology - BIO 103
Fall 2009

Instructors: Dr. Cecilia M. Fox
Ms. Marie Kennedy Hosier (laboratory instructor)

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Fox Office Hours: Mondays and Wednesdays 12-2pm, Tuesdays 10am-12pm
and by appointment

Hosier Office Hours: Mondays 9am-12pm, Wednesdays 10am-12pm and Fridays 10am-12pm

Lecture: Mondays, Wednesdays and Fridays 8:55-9:45am - Dana Lecture Hall,
Collier Hall of Science

Lab: 2 sections: Wednesdays or Fridays 1:15-4:15pm - Collier Hall of Science
Room 303

Textbook: Seeley's Principles of Anatomy and Physiology
by Philip Tate
McGraw Hill Publishers

Lab Manual: Laboratory Manual for Seeley's Principles of Anatomy and Physiology
by Eric Wise
McGraw Hill Publishers

Dissecting Kits and Protective Eyewear: Will need to be purchased by the September 9th and 11th lab sessions
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 fetal pig 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:

| | | |
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| Three lecture exams: | 100 points each = | 300 points |
| Three lab exams: | 100 points each = | 300 points |
| Best Ten Lecture Quizzes: | 10 points each = | 100 points |
| Best Ten Lab Quizzes : | 5 points each = | 50 points |
| Final lecture exam: | | 200 points |
| Case study assignments | 50 points each = | 100 points |
| Lecture participation and preparation: | | 100 points |
| Lab participation and preparation: | | <u>50 points</u> |
| | | 1200 points |

- ** Both lecture material and textbook readings are fair game for lecture exams.
- ** The final lecture exam is cumulative.
- ** Case study assignments 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 Professor Hosier 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. **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.**
- 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**.
 - 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, dissection kit and protective eyewear.
 - f) *Extra Help:* If difficulties interpreting lecture or lab material arise, please contact your professor(s) for extra tutoring sessions. *We will be more than happy to help!*
 - g) *Cell Phones/Pagers:* Please either turn off or set on vibrate/quiet mode your cell phones and pagers prior to entering the lecture hall and laboratory. **As a courtesy to the professor, no text messaging during lecture and lab!**
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Tentative Lecture Schedule

| <u>Week of</u> | <u>Topic</u> | <u>Reading Assignment</u> |
|-------------------|---|---------------------------|
| Aug. 30 | The Human Organism | Chapter 1 |
| Sept. 6 | The Chemical Basis of Life (brief overview) Cell Structures and Their Functions | Chapter 2 Chapter 3 |
| Sept. 7 | No Class (Labor Day) | |
| Sept. 13 | Cell Structures and Their Functions (con't) | |
| Sept. 20 | Tissues, Glands and Membranes | Chapter 4 |
| Sept. 27 | Integumentary System | Chapter 5 |
| Oct. 4 | Histology and Physiology of Bones | Chapter 6 |
| Oct. 5 | Exam 1 (Intro through Tissues) | |
| Oct. 10-13 | Fall Recess | |
| Oct. 11 | Anatomy of Bones and Joints | Chapter 7 |
| Oct. 14-21 | Society for Neuroscience Conference | |
| Oct. 18 | Anatomy of Bones and Joints (con't) Histology and Physiology of Muscles | Chapter 8 |
| Oct. 25 | Anatomy and Functions of Skeletal Muscles | Chapter 9 |

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| Oct. 28 | Exam 2 (Integumentary through Skeletal System) | |
| Nov. 1 | Anatomy and Functions of Skeletal Muscles | Chapter 9 |
| Nov. 8 | Anatomy and Functions of Skeletal Muscles (con't) | Chapter 9 |
| Nov. 15 | Functional Organization of Nervous Tissue | Chapter 10 |
| Nov. 18 | Exam 3 (Muscular System) | |
| Nov. 22 | Functional Organization of Nervous Tissue | Chapter 10 |
| Nov. 25-29 | Thanksgiving Holiday | |
| Nov. 29 | Central & Peripheral Nervous Systems | Chapter 11 |
| Dec. 6 | Special Senses Autonomic Nervous System | Chapter 13 Chapter 14 |
| December 15 (at 1:30pm) | Final Exam | |

Tentative Laboratory Schedule

| <u>Week of</u> | <u>Topic</u> | <u>Lab Exercise Reading</u> |
|----------------|--|---|
| August 31 | Homeostasis-Resting Pulse Rate Microscopy | Handout Exercise # 2 |
| September 7 | Introduction to Clinical Database Searchers Organs, Systems and Organization Of the Body Cell Structure and Function | Memorial Hall 202 Exercise # 1 Exercise # 3 |
| September 14 | Cell Transport and Permeability Tissues | Handout Exercise # 4 |

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| September 21 | Tissues continued Integumentary System | Exercise # 4 Exercise # 5 |
| September 28 | Practical Exam # 1 | |
| October 5 | Skeletal System | Exercises # 6,7,8,9 |
| October 12 | Skeletal System continued Articulations | Exercise # 10 |
| October 19 | Muscular System-Human Cat Dissection | Exercises #12, 13, 14, 15 |
| October 26 | Muscular System continued | |
| November 2 | Practical Exam # 2 | |
| November 9 | Histology of Nervous Tissue Nerve Physiology Dissection of Sheep Brain | Exercise # 16 Exercise # 17 |
| November 16 | Nervous System Physiology: Reflexes Cranial Nerves And Special Senses | Exercise # 19 Handout |
| November 23 | Thanksgiving Holiday - No Lab | |
| November 30 | Final Practical # 3 | |

(Professors reserve the right to amend this syllabus as the course progresses.)