

BIOLOGY 310: Mammalian Anatomy  
Office: Collier Hall of Science 321  
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Instructor: Dr. James Mitchell  
Fall 2007

Office Hours: T Th 8-10:00 a.m.  
(If these hours are inconvenient contact me for an appointment. If I am not in my office check room 324 or LAB 303.)

Lecture: M W F 8:00-8:50 (1<sup>st</sup> period) Room to be announced  
Laboratory: Wed 12:45-3:45 Collier Hall of Science rm. 303

Prerequisite: Biology 112 Zoology

Required text: McKinley and O'Loughlin. Human Anatomy. McGraw-Hill (2005).

Required items: A good dissection kit (new ones are available in the bookstore). The older kits have poor quality scissors; you need good dissection tools not toys.

### Course Description:

In this course you will study the structural aspects of the body, including adaptive characteristics (functional anatomy). It is a one-semester course; obviously, I will not be able to cover all of the organ systems. However, if you use your laboratory time wisely, you will learn additional material. The science of anatomy has changed greatly in the last 15 years; morphology, function, and development are all considered as a unit.

### Course Objectives:

Upon completion of Biology 310, the student should be able to:

- A. Comprehend the functional anatomy of the integumentary system, skeleton, joints, selected muscles, and, if time permits, selected parts of the central nervous system (brain).
- B. Understand the main relationships associated with the different types of cells and tissues that form the organs.

### Grading Policy:

There will be three hourly exams covering the class notes, text, and handouts. Exams may be objective and subjective in nature. I expect you to use good English in your answers.

Spelling: Why is it important? Confusion may arise from imprecision. Many biological or medical terms are similar—they may have the same Latin or Greek roots. Would you like your pharmacist to misread your prescription?

Also, in ALL jobs, written communication is important in making a good first impression. Would you hire someone whose application had spelling and/or grammatical errors?

The lecture will count as two-thirds (2/3) of the grade, and the laboratory one-third (1/3)—prior to the end-of-the-term exam. The average obtained from these scores will represent 2/3 of your course grade and the final exam 1/3. When assigning a final course grade, I will consider such intangibles as attendance, interest, industry, and cooperation. The final exam is not cumulative.

#### Extra Credit Options:

On some Fridays (7 to 8 a.m.) there will be a discussion-meeting on some aspect of Human Biology at Coordinated Health Care System, 2300 Highland Avenue. I will give you a list of topics when it becomes available. Pick topics that interest you. Although some of the material may be difficult to comprehend at this stage of your studies, it will give you an appreciation of the complexities associated with health care.

We have a first-period class and must leave early, so please sit in the back so we can exit quietly. If you need a ride please let me know and we can arrange a carpool.

**In order to obtain extra credit, you will need to attend several meetings.**

#### Cancelled classes:

The Registrar's Office will post cancelled classes on the intranet. Students and faculty may access this listing from on-or off-campus; a link to the page exists on both the home page and main page of the intranet. (The link is <http://home.moravian.edu/public/regis/classCancellations.htm>). The Registrar's Office will also notify, via distribution list, key individuals on campus for posting of information about cancelled classes. The distribution list includes the Academic Affairs office, department secretaries, LouAnn Vlahovic (campus operator), and Ann Claussen (Hauptert Union).

Mrs. Vlahovic will also post class cancellations, due to inclement weather, on Moravian's Weather Hotline (610-625-7995).

If the school closes due to inclement weather or another emergency, notification will be posted on the website listed above, on the Weather Hotline, and on local TV and radio stations (Channel 69, AM 790, AM 1400, FM 96.1, FM 100.7, and FM 104.1).

Lecture Schedule<sup>1</sup>

August 27	Orientation and History
August 29	Histology pp. 82-118
August 31	continued
September 3	<b>College Closed Labor Day</b>
September 4 (Tuesday)	<b>(Final day for course changes)</b>
September 5	continued
September 7	reproduction pp. 854-885
September 10	continued
September 12	continued
September 14	continued
September 15 (Saturday)	<b>Family Day</b>
September 17	continued
September 19	<b>EXAM 1</b>
September 21	Integumentary System pp. 121-142
September 24	continued
September 26	continued
September 28	Osteology, axial skeleton pp. 174-216
October 1	continued
October 3	continued
October 5	<b>Mid Term</b> (this does not mean there will be an exam on this date)

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<sup>1</sup> This is a tentative schedule and depends upon the progress of the students

October 8-9	<b>COLLEGE CLOSED FALL BREAK</b>
October 10	appendicular skeleton pp. 222-248
October 12	continued
October 15	continued
October 17	articulation's pp. 254-287
October 19	continued
October 20 (Saturday)	<b>Homecoming</b>
October 22	continued
October 24	continued
October 26	<b>EXAM 2</b>
October 29	muscle tissue and organization (selected sections) pp. 209-319
October 31	appendicular muscles, muscles that move the pectoral girdle and upper limbs pp. 356-375
November 2	continued
November 5	continued
November 7	continued
November 9	continued <b>last day for a W</b>
November 12	muscles that move the pelvic girdle and lower limb pp. 378-379
November 14	muscles that move the knee joint/leg pp. 382-394
November 16	continued
November 19	<b>EXAM 3</b>
November 21-25	<b>College Closed Thanksgiving Break</b>

November 26	continued
November 28	nervous system pp. 462-473
November 30	continued
December 3	continued
December 5	cranial nerves pp. 474-490
December 7	continued
December 10	<b>Review, Classes End</b>
December 11	Reading Day

**\* The registrar will determine the date of the final exam**

Tentative Lab Schedule

August 29	orientation, histology, epithelium pp. 82-94 connective tissue pp. 95-103
September 5	histology of female reproductive organs ovary 857-858, oviduct p. 863, mammary gland p. 870, vagina p. 866
September 12	histology of the male reproductive system testis pp. 871-875, epididymis, p. 877, vas deferens p. 877, prostate p. 879
September 19	integument pp. 121-142
September 26	<b>PRACTICAL EXAM</b>
October 3	osteology pp. 176-215
October 10	continued
October 17	introduction to the cat
October 24	pectoral girdle and arm muscles
October 31	pelvic girdle and leg muscles
November 7	abdominal muscles, etc.
November 14	digestive viscera
November 21	<b>NO LAB</b> <b>COLLEGE CLOSED</b>
November 28	circulation, excretion, brain
December 5	<b>PRACTICAL EXAM</b>

### Helpful Tips for Success:

1. See the instructor if you need help. I will attempt to facilitate the learning process.
2. Make good use of lab time. Be on time; don't leave early.
3. Make a study schedule.
4. Frequently review material that was covered.
5. Make anatomy interesting. How does it relate to you?
6. Does geography and morphology make sense? For instance, why is the pancreas next to the duodenum? Why would the small intestine be long and twisted and have plicae, villi, and microvilli on its inner wall?
7. On diagrams, cover up the labels. Turn the drawings upside down and identify structures.
8. When possible, attempt to correlate structure and function (see item 6).
9. Study with peers who are serious about their work and have similar goals.
10. Cramming and "all nighters" usually don't work. Keeping up is much easier than catching up.

### General Rules and Information:

1. Student behavior in lecture and lab is to be maintained in a manner conducive to learning and study.
2. You must attend the lecture and lab unless there are extenuating circumstances (illness, family problems, etc.)
3. You are not allowed to remove any materials from the laboratory. Please return microscopes to their proper place (with scope # corresponding to slot #) at the end of the lab.
4. Food, drinks, and all tobacco products are not allowed in lab.
5. I expect you to treat the animals, models, slides, microscopes, and specimen with care and respect.
6. Dissection products should be placed in the designated containers, NOT in the sinks.

7. At the end of each lab, you are responsible for cleaning your work area. Wipe the table with antibacterial soap.
8. Clean your dissection tools and tray anytime they are used and return materials to the proper location.
9. Activated electronic devices such as cell phones, radios, Walkman, etc., are NOT allowed in the lab or lecture hall. Please turn them off.
10. No form of academic dishonesty will be tolerated. Refer to the Moravian College Honor Code in the Handbook.
11. If you want to use the lab and another instructor is conducting a class, ask for permission to work quietly in the back of the room.

Best of luck and I look forward to working with you this semester.