

Biology 160 - Elements of Human Anatomy and Physiology

Instructors: Timothy Plagge & Dr. Jeffrey Ninberg

Phone- 619-388-2400 ext. 5450

Mailbox – K202

e-mail – tplagge@sdccd.edu

website: www.tplagge.net/courses/Bio160/Bio160.html

Course Description:

An introductory course in human body structure and function intended to meet the requirements of students preparing for health occupations such as radiological technician, physical therapy assistant, medical laboratory technician, and medical records technician. The course consists of 3 lecture hours and one three-hour lab weekly for 4 credits.

Upon successful completion of the course the student will be able to:

1. recognize and use terminology, specific facts, and general principles associated with the structure and function(s) of human body systems,
2. describe how body systems relate to the maintenance of homeostasis at all levels,
3. apply normal and clinical concepts of human anatomy and physiology,
4. choose appropriate laboratory equipment to record, analyze, and interpret physiological data,
5. recognize and identify cells and tissue using the microscope and photomicrographs,
6. recognize and identify human organs based on lab dissections,
7. recognize, identify, and state the major function(s) of human organs based on text and lecture information
8. analyze the root words used in naming human anatomical landmarks.

Course Advisory:

English 51 and 56, each with a grade of “C” or better, or equivalent, or assessment skill levels W5 & R5. It is not open to students with credit for Biology 230 or Biology 235.

Texts and Supplies:

1. Textbook (required): Martini/Bartholomew Essentials of Anatomy & Physiology, 5th ed.
This text is to be used as a reference, to clarify &/or expand the lectures. I strongly recommend that you come to class having read the corresponding material *prior* to the lecture.
Additional lecture materials:
 - a. websites: <http://www.tplagge.net/courses/Bio160/Bio160.html>
 - b. Textbook web site with study questions, etc. at www.anatomyandphysiology.com
 - c. InterActive physiology CD-ROM packaged with textbook. Contains some excellent physiology animations for further clarification of subjects (especially muscular and nervous systems)
2. Laboratory manual (required): Geller and Phiri: Elements of Anatomy and Physiology Laboratory Manual, 2nd ed.
3. Laboratory dissection equipment (required):
 - a. Dissection kit (blue hard plastic case) containing scalpel, forceps, lab scissors & needle-tipped probes
 - b. Disposable gloves (approximately 8-10 pair)

Evaluation:

The final grade will be based on your percentage of points obtained out of a maximum total of points, on the following:

4 lecture exams	- 60-80 points each
10 lab exercises (lowest two dropped)	- 10 points each
lab exam on bones & ex. 1 & 2	- 40 points
lab exam on muscles	- 40 points
lab exam on human & sheep brain	- 40 points
lab exam on human & sheep heart	- 40 points
lab exam on fetal pig	- 40 points
lab exam on digestive & respiratory	- 40 points

90-100% - A

80-89% - B

70-79% - C

60-69% - D

Less than 60% - F

IMPORTANT NOTE: There will be NO makeup exams scheduled.

1. Lecture Exams - each exam will consist of scantron-marked questions, which may include multiple choice, true/false, and/or matching. In addition each exam will also include essay-type questions which may include actual short essays, and/or diagram labeling, lists, definitions, etc. The examinations are not cumulative, however students are expected to build on information previously presented. All lecture exams will count toward your final grade.

a. **No make-up exams will be scheduled.** Consideration will only be given for extreme/unforeseen circumstances with valid documentation. Student must contact me prior to the examination to receive any consideration.

"Consideration" does not guarantee allowance of a make-up.

b. You are expected to be on time for all lectures and exams. Students who are more than 20 minutes late for an exam may not be allowed to take the exam.

2. Lab Exams

a. Lab exams will be on the identification of anatomical structures covered in previous lab period(s) as well as concepts covered in the lab exercises. Answers must be written on provided answer sheets within allotted time frames. Please see attached schedule for specific dates of exams.

b. There will be **NO** make-up lab exams and all exams will count towards your final grade. Students are expected to take their lab exams during their regularly scheduled lab day/time.

3. Lab Exercises/Homework

a. Lab write-ups will be assigned from the tear-out questions at the end of the lab exercises. These assignments will be due at the start of the following scheduled lab. Lab assignments turned in after the due date will be docked 1 point for each *calendar day* that they are late. One graded homework (the lowest score) will be dropped and not counted in your final grade. Lab write-ups will be graded as follows:

98-100% correct = 10/10

90-97% correct = 8-9

80-89% correct = 6-7

70-79% correct = 4-5

65-69% correct = 2-3

<65% = 1

b. Multiple page assignments will not be accepted unless the pages are stapled together. Please make sure your name is on all pages turned in.

Laboratory Safety:

- Shoes must be worn at all times to protect your feet from potential chemicals and broken glass found on the floor.
- Protective eyewear (safety glasses/goggles) is recommended when dissecting preserved specimens, especially if you wear contact lenses. An eyewash is available in the back of the room in the event that chemicals become splashed in the eyes.
- Sharp objects (scalpel blades, broken glass, razor blades, pins, toothpicks, etc.) must be disposed of in the red "sharps" container. NO sharp objects may be put in garbage cans.
- Biohazards (blood, urine, saliva tainted objects) must be put in red biohazard bags or the sharps container for proper disposal.
- Disinfectant and Band-aids are available at the first aid area in the back corner of the room by the fume hood.
- Please exercise caution in all labs but especially during dissections. Remember dissection equipment is sharp and I hate the sight of blood!
- All tables must be wiped down with bleach or cleaner after each lab session. All equipment must be rinsed and put in the appropriate areas after use. I will notify you of specific clean-up procedures.
- Please leave the lab room in the same condition as you found it. (In other words - CLEAN!)
- Please notify me immediately of any problem or injury.
- There is no eating in the laboratory.

Personal Conduct: Each student is responsible for following the District's policy (3100, 3100.1 and 3100.2) regarding attendance and behavior. Please see college catalog for specific details. Any deviation from these standards may result in charges of misconduct and disciplinary sanctions.

Cheating of any kind will not be tolerated and will result in the receipt of a zero grade for the exam or project. Violations of standards of academic honesty will be reported to the school dean for appropriate action.

Attendance Policy: It is the student's responsibility to drop all classes in which he/she is no longer attending. Please do not expect the instructor to automatically drop you if you are failing the class. It is the instructor's discretion to withdraw a student after the add/drop deadline due to excessive absences.

Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class.

Important dates:

Feb. 5	Last day to add and pay for a class with an add code, or drop without a "W" recorded.
Feb. 8	Last day to drop and be eligible for a refund of enrollment fees and or non-resident tuition.
Apr. 9	Last day to withdraw from the class. No drops accepted after this date. A letter grade will be given.

Students with disabilities who may need academic accommodations should discuss options with me during the first two weeks of class.

Please be considerate of others & silence your cell phones & pagers. Repeated unnecessary interruptions will not be tolerated.

TIPS FOR SUCCESS

1. Organize your time.

Make a term study plan that includes study and class time as well as time for work, recreation, eating, sleeping, exercising, family activities, outside commitments, breaks, and rewards. Be realistic rather than idealistic; create a schedule that works for you then stick with it. Learn how to avoid wasting time and how to prioritize the time you have.

2. Be on time and ready to work.

Come prepared to give 110% and "play all-out"! We all have other things going on in life, learn to put them aside and really focus.

3. Read the corresponding text before the lecture.

Even if you don't completely understand what you have read, this will start the learning process and make the lectures seem familiar.

4. Pay attention and take good notes during class.

There is a lot of information that is covered in class and it will go quickly! Ask questions if you have them, very likely someone else in the class has the same exact question. If you are uncomfortable asking questions in class, please see me before or after class or during office hours. You are welcome to tape my lectures to use for clarification later. If you print off the lecture notes before hand, make notes on them, if you need help regarding the most efficient way to print for note taking, let me know. If you don't use the notes that I have provided, use the Cornell method of note taking, which is to use the right 2/3 of the paper for notes, and the left column for additional comments, questions or references to other materials. Don't use both sides of the paper, as you may need to add additional information which you can do on the back side of the page.

5. How to use your collected materials and notes.

- Review your notes for 10-15 minutes after every class. Write down any questions you may have. Forgetting takes place most rapidly immediately after learning so this type of reinforcement will make reviewing for exams much easier.
- Rewrite your notes within 24 hours. This further reinforces the information, and allows you to organize it in your own way. This is where you should use your text to clarify and expand on your knowledge. Make sure you *understand* the concepts presented, don't just memorize facts. If you are having difficulties here, ask for help from me, a fellow classmate, tutor, or use text website &/or text CDs (Interactive physiology).
 - Create your own concept maps of the information. These will help you to organize the information in a way that makes sense to your brain and will help you with consolidation.
- Review all your rewritten notes within a week (7 days) of learning it. If you have put the time in and kept up with your reviewing, when it comes time to studying for exams, you should be well prepared.

6. P P P P P! Prior Preparation Prevents Poor Performance

Use your material, make up questions, use those at the end of chapters & on the text web site to test your knowledge. Get together with a small group of classmates and quiz each other. It is often not enough to just re-read your notes over & over, you must practice applying your knowledge *before* the exam.

7. Anatomy & Physiology is fun, enjoy learning how it all works!

HELPFUL HINTS FOR LAB

- Use the lab time wisely. This means reading the assigned lab PRIOR to coming to lab and being prepared to work. I will usually give you a brief overview of the assignment but I expect that you be prepared to work without my telling you what to do. You are encouraged to work in small groups (unless I say differently) and support each other with your individual knowledge and strengths.
- Because of scheduling difficulties, you may do a lab before I've had the chance to lecture on the material. This is another reason why preparation is so important.
- There is usually an "open-lab" available in room I3-311 (the anatomy room) at certain times for you to have more time available to study primarily for your lab exams. You will be required to "check-in" with the student proctor & follow all rules, including keeping the lab room clean. The open lab is NOT for making up a lab or completing a lab you didn't finish in class. I will let you know of the times.
- The labs are supposed to help support you in the learning process, not to frustrate you. Have fun with them!

Biology 160 Tentative Lecture Schedule - Spring 2010

<u>WEEK</u>	<u>DATE</u>	<u>LECTURE</u>	<u>CHAPTER (Martini)</u>
1	T - Jan 26	Intro	1
	Th-Jan 28	Cells	3
2	T - Feb 2	Cell/Tissues	3,4
	Th-Feb 4	Tissues	4
3	T - Feb 9	Integument	5
	Th-Feb 11	Skeletal Tissue	6
4	T - Feb 16	EXAM 1	(through skeletal tissue)
	Th-Feb 18	Articulations/Muscle Tissue	6, 7
5	T - Feb 23	Muscle Tissue	7
	Th-Feb 25	Muscular Tissue/System	7
6	T - Mar 2	Muscle/Nervous Tissue	7, 8
	Th-Mar 4	Nervous Tissue	8
7	T - Mar 9	Nervous Tissue	8
	Th-Mar 11	EXAM 2	(through nervous tissue)
8	T - Mar 16	Nervous System (CNS)	8
	Th-Mar 17	Nervous System (CNS/PNS)	8
9	T - Mar 23	Nervous System/ANS	8
	Th-Mar 25	Autonomic Nervous System/Endocrine	8,10
10	T - Mar 30	Spring Break	
	Th-Apr 1		
11	T - Apr 6	Endocrine	10
	Th-Apr 8	Endocrine	10
12	T - Apr 13	EXAM 3	(through endocrine)
	Th-Apr 15	Blood	11
13	T - Apr 20	Blood/Heart	11, 12
	Th-Apr 22	Heart/Blood Vessels	12, 13
14	T - Apr 27	Blood vessels/Immune	13, 14
	Th-Apr 29	Immune	14
15	T - May 4	Respiratory System	15
	Th-May 6	Digestive System	16
16	T - May 11	Digestive System	16
	Th-May 13	Urinary System	18
17	T - May 18	Urinary System	18
	Th-May 20	EXAM 4	

Biology 160 Laboratory Schedule – Spring 2010

<u>WEEK</u>	<u>DATE</u>	<u>CHAPTER</u> (Geller & Phiri)	
1	Jan 28	Ex. 1	Introduction to Anatomical Terminology, Body Organization, and the Metric System
2	Feb 4	Ex. 2	Transport Mechanisms in the Body
3	Feb 11	Ex. 3	The Skeletal System
4	Feb 18	Ex. 3 & 4	Skeletal System/Muscle Anatomy
5	Feb 25	Lab Exam 1 Ex. 4	(bones & exercises 1 & 2) Muscle Anatomy
6	Mar 4	Ex. 5	The Nervous system – Brain Anatomy -Human
7	Mar 11	Lab Exam 2 Ex. 5 *	(muscles) Human Brain Anatomy & Sheep Brain Dissection
8	Mar 18	Ex. 8 *	Fetal Pig Dissection
9	Mar 25	Lab Exam 3 Ex. 8 *	(nervous system) Fetal Pig Dissection
10	Apr 1	Spring Break	
11	Apr 8	Ex. 8 *	Fetal Pig Dissection
12	Apr 15	Lab Exam 4 Ex. 6	(fetal pig) The Cardiovascular System - Heart Anatomy
13	Apr 22	Ex. 6 *	Anatomy of the Heart & Sheep Heart dissection
14	Apr 29	Lab Exam 5 Ex. 7	(cardiovascular) The Electrocardiogram (ECG)
15	May 6	Ex. 9	Respiratory System
16	May 13	Ex. 10	Digestive System
17	May 20	Lab Exam 6	(respiratory & digestive)

* = Bring Dissecting kit & gloves

Note: Please bring your textbook with you to the lab to use as a reference.

Name: _____

Phone: _____

Email _____

Major: _____

Reason for taking this course: _____

How many units are you taking this semester? _____

How many hours do you work per week? _____

Please list (by class title, not number) any college level biology or chemistry you have taken.

Please indicate briefly what you want and expect to learn and use from this course.

How many hours per week (outside of class) do you intend to commit to this course? (Be honest with yourself and me).

What grade do you expect to earn in this course? _____

Please read and sign the following. By doing so, you and I will have a valid contract for this class.

I have received and read the entire class syllabus for Plagge & Ninberg's Biology 160 class and I understand and agree to all terms set forth within it.

Name _____

Date _____