

SYLLABUS

DATE: August 25, 2008
COURSE NUMBER AND TITLE: BIOL 252, Human Anatomy and Physiology
CREDIT HOURS: Four
SEMESTER OFFERED: Fall
PREREQUISITE: None, but CHEM 105 is a prerequisite or a co-requisite for BIOL 253 (it's better to take CHEM 105 this semester)
INSTRUCTOR: Tom Urquhart Ph.D., MLH 218, 792-2246 (office)
758-0865 (home)
E-Mail: <urquhart@lcsc.edu>
OFFICE HOURS: Monday, Wednesday, Friday: 10:00 to 12:00 and during lab times (if I'm not in my office look in the lab).

CLASSROOM AND TIMES: There are two lecture sections of A&P which meet either from 10:15 until 11:50 or from 12:00 until 1:20 on Monday, Wednesday and Friday in MLH 100.

Your laboratory section meets on one of the following times in MLH 220: 1:30-3:30 Monday (section 1), 3:30-5:30 Monday (section 8), 5:30-7:30 Monday (section 10), 8:00-10:00 Tuesday (section 2), 10:00-12:00 Tuesday (section 3), 12:00 – 2:00 Tuesday (section 4), 2:00-4:00 Tuesday (Section 5), 8:00-10:00 Thursday (section 6), 10:00-12:00 Thursday (section 7).

TEXTS: # 1 and # 2 are required

1. Anatomy and Physiology, The Unity of Form and Function, Saladin, Kenneth, McGraw Hill. Fourth Edition, 2007.

I recommend that you purchase this textbook. In my opinion this is the best A&P book on the market today for a class with our objectives. Many of the transparent overheads that I present in class are taken from this text. Also, reading assignments will be given for specific topics in this text. The same book will be used during the second semester of BI 253 (Physiology).

You have other options for a textbook. You may use any anatomy and physiology textbook that has at least 1000 pages and was published since 2003.

2. Mammalian Anatomy the Cat, Sebastiani, Aurora, and Dale Fishbeck, Second Edition 2005, Morton Publishing Company.

3. Optional, but very useful if you plan to take the second semester, BIOL 253: diFiore's Atlas of Histology, 10th edition 2005, Lippincott (this is my favorite) or A Photographic Atlas of Histology, Leboffe, Michael J, 2003, Morton Publishing Company.

4. Optional: Atlas of Anatomy. There are several to choose from and the bookstore stocks a few of these choices. You really won't need an atlas because you have a good textbook, but an atlas is helpful.

SUPPLIES: Dissection kits are sold in the bookstore. You may purchase a complete kit or select individual tools. Each of you will need a Mall Probe, and each group which shares a cat for dissection will need to have a pair of quality scissors, a scalpel, and forceps. Gloves will not be provided.

PURPOSE: This is the first semester of a two semester sequence in anatomy & physiology with an emphasis on anatomy, but includes some physiology. Since many students are medical-science majors, clinical aspects are included.

This entry level course requires no previous knowledge of anatomy. It is assumed that you have little knowledge of the subject at the beginning of the semester.

This course fulfills four of the eight A & P credits required for the LCSC baccalaureate nursing program, radiographic, biology and secondary science education majors, and the four credits required in kinesiology.

COURSE OBJECTIVES:

1. Students will be able to define the basic structure and function of the following systems: osteological, muscular, nervous, endocrine, cardiovascular, immunity, respiratory, digestive, urinary and reproductive. Specific objectives are listed in the four study guides that supplement this syllabus. For a more detailed list, look at the study guide for lecture content.

2. Students will demonstrate minimum competency in the laboratory by correctly naming: tissues (such as muscle, bone or blood), bones and their structures, muscles, blood vessels, and structures of the digestive, circulatory, nervous, endocrine, urinary, and reproductive systems. Lists of all required structures to be learned in the lab will be given to you. For a more detailed list, look at the "lab lists" in this syllabus.

EVALUATION: Your grade will be calculated on the basis of lecture quizzes, lecture and laboratory examination scores, and dissection points. There is no extra credit.

Lab examinations will be given on four different Fridays during the semester. There will be several 60 minute sessions beginning early in the morning and ending late in the afternoon; sign up sheets will be available the preceding week. Refer to the class schedule for the four dates on which these tests will be given. If you are not able to attend a Friday lab exam, please let me know before the exam is given. All four of your lab exam scores are counted in your grade. Do not miss lab exams.

Laboratory exams will include only the material covered since the previous lab exam. You will be given an answer sheet and asked to name anatomical structures on lab specimens. Twenty five stations, each with three questions constitute a 75 point exam. You will have approximately two minutes at each station (which is plenty if you know the answers) and two minutes after completing all 75 questions to "go back" and recheck a few answers. There will be four exams, each worth 75 points. All four lab exams count in your grade for the course; none of these are dropped.

The four lecture exams this semester will be given during class time. Refer to the class schedule for the four dates on which these tests will be given. If you are not able to attend a lecture exam, please let me know before the exam is given.

Lecture exams, are all comprehensive (i.e. they cover all material back to the beginning of the semester). Each (except for exam one) will consist of approximately 85% material since the last exam and 15% material prior to the exam. During the last two weeks of the semester, I will decide when exam four will be given; depending on the date of completion of lecture content. The final exam will be equally distributed over the entire course content. The four exams and final are each worth 100 points.

There are five lecture exams including the final, given this semester. Only four will be used to calculate grades; you are allowed to miss any one of the five without affecting your grade. Most students choose to take all four lecture exams and drop the final. If you are unable to take one of the first four lecture exams, it will become the one dropped. If you must miss an exam, please contact me before the exam and let me know about your absence. If a makeup is allowed it must be completed before the exam is returned to the class.

A short lecture quiz will be given each Monday (except when there is an exam on Monday, then we skip a quiz that week). There will be eleven quizzes and nine of them will be used to calculate your grade; the lowest two scores among the eleven quizzes will be dropped. Also, lab memorization quizzes (bones lists, muscle lists, visceral lists and circulation) will be given in lab during the semester and will be worth a combined total of 25 points for each of the four lab sections. The last day to take or make up a list quiz will be the Friday before the lab exam on that subject.

If you miss a lecture exam or quiz and have been given permission to make it up, the make up must occur before the next class session.

Each member of your cat dissection team (consisting of 2 to 4 people), can earn up to 25 dissection points. Even though quality of dissection is important, major emphasis is placed on the completeness of dissection. Cats will be graded after the last lab exam has been given. It is your responsibility to see that each of your lab partners does their fair share of dissection.

A curve, based on the class performance, will be calculated for each quiz and exam and if necessary adjusted so that the average is mid-C. Consequently the cut-off for grades is often below the standard 90-80-70-60 curve (86% may be an A on some tests). The point distribution for all grades will be given to you when tests are returned. You will know, to the point, what your grade is throughout the semester.

TEST GRADING: Lecture tests will be returned to you within seven days. If you believe that a question has been improperly graded, I will re-grade it for you. To do this, write the question number on the front page below your name and return it to me within one week following the return of the exam. Returns are limited to the one week period following the return of an exam.

TEST TAKING: Lecture exams are given in MLH 100 during class time on the dates indicated on the course schedule. You may take the entire period to complete your exam. Please isolate yourself as well as possible. You are not allowed to use graphing calculators (TI-92), cell phone calculators, head phones or wear a hat. Try to relax and let your mind work for you rather than against you. Remember your mind is under your control.

CHEATING: Our professions require honesty and fortunately almost all students have integrity. Avoid the temptation to look at another student's exam, avoid exposing your answers to others and keep your lecture notes out of view during exams. Do not discuss the content of lab exams with others who have not yet taken it; this will not only raise the curve and lower your grade, but it is dishonorable behavior. Cheating will result in not only failure of the course, but the student's name will be forwarded to the Dean of Students for additional action.

KEEP TRACK OF YOUR GRADE: Record each test score on the Examination Record at the bottom of the Date/Topic Course Outline in this syllabus. If you do, you will always have a record of your grades and you won't have to ask me to add your score for you.

CLASS ATTENDANCE: I do not take role in either lecture or lab; however it is obvious when students miss class. I will notice your absence. There is a strong correlation between success in this class and attendance. About 10% of each exam is derived from each lecture, so missing one lecture puts 10% of the next exam at risk. If possible don't miss, and if you do be sure to get all missed information.

During scheduled lab time, instructors will be there to help you. Outside of the scheduled lab time, help is more difficult to find. Even though most labs are full, it is probably the best time to cover the most information.

In addition, the lab is available to you when labs are not scheduled in the room. Please note that human biology lab will be in the lab on Thursday from 1:30 until 4:30 and Friday from 9:00 until 12:00. Other than these times the lab is usually available for your use. You are encouraged to come in often and study. It will take more time to learn lab objectives than is scheduled in lab. Your lab is scheduled to last for 2 hours each week, but to firmly learn material you will need to spend more time in lab than 2 hours. If you need evening or weekend access to the lab, you may call campus security (792-2815) and request that you be admitted to the anatomy lab. Security policy requires that at least two adults be in the lab during evenings and weekends so

arrange to have a "buddy" with you at these times. Also, if you happen to be the last student to leave the lab during evening or weekend hours, you are required to contact security to tell them that the building is vacant. If you are the last person leaving the lab after 5:00 p.m., please turn off the lights and close all doors. If at any time you are studying in the lab and a security officer passes through asking to see ID, please cooperate, they are doing their job.

Laboratory specimens are preserved with chemicals including formaldehyde. It is highly unlikely, but possible that these chemicals could introduce a teratogenic affect on developing embryos. If you are now pregnant or become pregnant during this semester, please be advised that it is your decision whether to continue this semester or postpone exposure to tissue preservatives until a later year.

LAB ETIQUETTE: Clean your lab table and any other mess you have made in the laboratory at the end of each class. Sinks are not garbage containers.

Smoking is not permitted in any classroom, in outside stairwells or balconies on campus. If you must smoke do so outside beyond the stairwell.

It is acceptable to take your cat home, provided that you have the consent of each of your dissection partners. It is **not** acceptable to take cat dissection trays home with your cat. It is acceptable to study, but not dissect cats other than your own. If you remove any cat from its storage container be certain that it is returned to the same container. If you get a cat out, it is your responsibility to put it back. You will be tested on other cats, so look at many of them. Bones, slides and models are not allowed out of the laboratory.

QUESTIONS AND DISCUSSIONS IN CLASS: If you have questions about material being presented during lecture, please ask. Even if the question is: "What are you talking about?"

CADAVER POLICY: Students enrolled in class now or in the past are the only people welcome to view cadavers. Please don't encourage or allow unauthorized people to view them. Use common sense with this matter and treat the cadavers with respect.

Only students enrolled in Human Dissection are allowed to dissect cadavers. You are not allowed touch them with any metal tools. Be very careful when handling delicate organs such as vessels and nerves and always wear latex or nitrile gloves.

OFFICE HOURS: My office is open throughout the day and you are welcome to come in almost anytime. If it is important and if you can get through, you may call me at my home anytime before 9:00 p.m.

WHAT TO CALL YOUR INSTRUCTOR: It is not necessary to call me Dr. Urquhart. Do so if you prefer, but I am comfortable being called by my first name. May I suggest however, that you use formal names when talking to or about any faculty member who has not invited you to do otherwise?

TIPS ON HOW TO STUDY: This course has the reputation of being hard. In my opinion, it is not hard in the sense of being difficult to understand, but difficult because it requires a lot of work. It is very clear what you need to know in order to succeed. There are no mysteries about what the tests will cover. Copies of lecture exams from the two previous years are included in this syllabus. Some of the questions on past exams will be the same this year, but many of them will be different. Use the old exams as a tool to evaluate your level of preparation before testing. Also detailed study guides that outline the contents covered on each exam are included in the syllabus.

Material presented in class will be the primary source of questions asked on lecture exams and quizzes. Other questions may be drawn from assigned readings in the text. Your best tool will be a good set of notes. You will need to add a lot more information to your notes than is provided in them. Get as much into your notes as you can, and **START STUDYING EARLY!**

Read the textbook! Lectures are much more meaningful if you already know something about the subject. You will discover that the textbook covers some subjects more completely than I, with less coverage on others. However, most of the textbook material not covered this semester will be covered next semester.

You may tape record lectures if you choose.

Review your notes every day after class and make certain that everything is clear. You may not have learned the contents yet, but at least it will be in a learnable form. Do whatever you need to do to get your notes in order.

It is generally considered necessary to study twelve hours outside of class for every six hours spent in class and lab each week; this adds up to eighteen hours each week for this class. Depending on your ability and energy level, it may take more or less than eighteen hours of study per week in this course (this class is like having a half-time job). From the beginning keep track of how much time you spend studying (minute by minute) so that you will be able to effectively determine how much time it takes for you to prepare for this class. Studying is not passive or relaxed behavior; it requires energy and is not easy. You will be tired after spending a few hours doing it. Consequently, spend a few hours each day studying rather than many hours just before the test. Research demonstrates that long term memory is enhanced by reviewing material within 72 hours.

For most students, best results are gained by first trying to learn material independently. This means going over your notes many times. Study a section of your notes consisting of 2 or 3 pages until you believe that you know it. Then, put your notes aside and try to make an abbreviated copy of those few pages on clean paper. If you truly know the material, you will be able to closely duplicate your notes. When you are ready to test, you will be able to make a duplicate set of notes from memory. This may sound impossible, but it is a task that can be learned with practice. Following independent study, get together with someone else. You can discover how well you understand something by trying to explain it to other students.

Use your study guides. They contain lists of vocabulary words that are the answers to many test questions. They also contain objectives that clarify what concepts you need to learn.

One of the common statements made by students to me is: "Before the exam I really knew this stuff. In fact I was explaining it to other students who didn't understand it and they did better on the exam than I. I just get uptight in exams." When I ask these students questions about the material, I find that their knowledge of it is rather incomplete; they don't really know it as well as they thought. The information seems clear to them while their notes are open before them, or even for a short period afterward, but when the notes have been closed for a day their recall is diminished. You may need to go over notes repeatedly until it is remembered. Start early! Study everyday! Learn the material well enough that you can make another copy of your notes from memory.

You will enjoy learning structure and function of this marvelous biological machine; which isn't perfect, but it's pretty good. This course is not easy, but it is worth the effort.

There will probably be times when some of you wonder why you are being asked to learn so much. Some information will appear unimportant to you. Try to look at it this way: You need to have a large knowledge pool about this information. Your pool must contain many terms and concepts. Very few terms are essential, but in order to function in your profession and understand its language you must have a large pool. Be proud of your pool. I try to be selective about what you learn and attempt to give you as much as I can in the time we have. Even so, there are many important pieces of information that are not presented. We just don't have enough time to cover it deeply. Use the contents learned here as a foundation on which to learn more in the future. There will be many more A&P terms and concepts that you will learn in the future. This course is only the beginning.

We all know that everything learned now is not remembered later, and only a fraction of it remains in superficial memory. However, once learned it is quickly recalled upon review. Like climbing mountains, there is an art in conducting oneself in the lower regions by the memory of what one saw while higher up. Climb this mountain as high as you can.

ATTITUDE: Your attitude about this course, or anything else in your life, is your choice. You and only you have total control of your attitude.

This course will be a lot of rewarding work and much more enjoyable if you choose to like it.

As your professor, I intend to follow the contents of this syllabus, including the course outline, as best I can, and to provide you with a worthwhile learning experience.

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment to talk with me.