

BIOLOGY 446L: Human Microscopic and Gross Anatomy
Spring 2011 Unique numbers:

Course Instructor:

Office:

E-mail:

Phone:

Office Hours:

Course Overview: Human Microscopic and Gross Anatomy (BIO 446L) is an upper division lecture and lab course designed for biology majors. This course will provide students with an intensive survey of the microscopic and gross anatomy of various human tissues and organs. The course will use a systems approach, with an emphasis on integrated structure-function relationships at the cell, tissue and organ level. Lecture and lab study materials will include a virtual microscopic slide library, animal tissue for dissection, skeletons, models, and video film clips of human cadaver dissections. On completion of the course, students will be able to identify and describe: the different types of human tissues, the structure and location of different organs, their specific functions, and their relationships with each other in the human body.

This semester you have the opportunity to dive deeply into the intriguing field of human anatomy and physiology. It can be one of the most satisfying subjects you will ever study because it brings together so much material you have learned from other courses and it can be applied to understand so much that you encounter in your daily life. You will certainly use both the facts and the skills you develop in this course in your future careers. Have an open, engaged mind, work hard and ENJOY!

Lecture: MWF 12-1 pm; WCH 1.120

Lab: MW 1-5 pm, TTH 2-6 pm, MW 5-9 pm, or TTH 6-10 pm; PAI 3.22

Lab Director: Paul Findell, Ph.D. paulfindell@mail.utexas.edu

Lab Teaching

Assistants:

E-mail addresses;

Office hours and

Office locations

Teaching assistant's office hours and office locations will be provided as a supplement to this syllabus. This supplement will be posted on the course Blackboard site.

Class Blackboard Site: The syllabus, assignments, grades (**under eGradebook**) and other information will be posted on the class Blackboard site. You can find the site by going to your courses on your UT Direct page or by going to <http://courses.utexas.edu> – *10F HUMAN MICROSCOPIC AND GROSS ANAT 49700*

Peer Lead Undergraduate Study Groups: We are fortunate that the Peer Lead Undergraduate Study (PLUS) team will be supporting Bio446L this semester. Study group times and locations will be provided the second week of class during lecture and will also be posted on Blackboard. If you would like to become a preceptor (study group leader) for Bio446L this semester, **applications will be handed out during lecture and will be posted on Blackboard.** You are strongly encouraged to take advantage of

these organized study groups. Students that participated in these study groups in the past found them to be very beneficial and have significantly improved performance in the class. For more information on the PLUS study groups go http://www.utexas.edu/student/utlc/study_groups/.

Course Objectives: This course is as much about how to learn as it is about human anatomy and physiology and requires that you are able to **understand** the material as well as memorize it. Students who complete this class should be able to:

1. Explain the inseparable relationship between microscopic structure and function, and be able to apply that understanding to new situations.
2. Use systematic, logical thinking processes to correctly identify tissues at the microscopic level.
3. Identify and describe gross anatomical and microscopic anatomical details of the major tissues, organs, and organ systems of the human body.
4. Explain the functions of the organ and the mechanisms that allow the organ to carry out its functions.
5. Compare and contrast physiological processes in various organ systems.
6. Integrate the various overlapping various physiological processes that maintain homeostasis.
7. Explain the 3-dimensional complexity of the human body as evidenced by the relational positions of major organs.
8. Use anatomical terminology of the major body regions and its cavities, and the directions and planes of section of the human body to communicate 3-dimensional complexity accurately and succinctly to others.
9. Read relevant scientific literature, applying anatomical nomenclature and concepts.
10. Organize, memorize, and integrate significant amounts of information.
11. Recognize what you do not understand.
12. Improve critical reading skills.
13. Maintain composure and focus when faced with problem solving and questions on material you have not studied directly.
14. Cooperate with classmates and work effectively in teams.
15. Enjoy the opportunity to examine in detail the fascinating workings of the human body.

Prerequisites: Biology 311C; Biology 325 or 325H with a grade of at least C-; Chemistry 301 with a grade of at least C-; and one of the following courses with a grade of at least C-: Mathematics 408C, 408K, 408N, 408R, Statistics and Scientific Computation 302. These course prerequisites may be waived at departmental discretion.

Textbooks: Three required – 1) *Histology: A Text and Atlas*, 5th edition, by Michael H. Ross and Wojciech Pawlina, 2007 (ISBN 978-0-7817-7221-1). 2) *Atlas of Anatomy*, Patrick W. Tank and Thomas R. Gest, 2009 (ISBN 978-0-7817-8505-1); and 3) **BIO446L Laboratory Manual** (UT Co-op custom publishing).

Additional text reference books – 1) *Human Physiology, an Integrated Approach*, 5th edition, by Dee Unglaub Silverthorn, 2007; 2) *Human Anatomy and Physiology*, 8th edition, by Elaine N. Marieb, 2010. *Atlas of the Skeletal Muscles*, 3rd edition, by Bradley S. Bowden and Joan M. Bowden, 2010.

Additional Supplies: 1) UT Classroom Performance System (CPS) keypad – Gen3 RF clicker; 2) non-alphanumeric calculator; 3) colored pens or pencils are useful

Class Performance System: The UT Classroom Performance System (CPS) is an integral part of the course. A significant portion of your grade assessment will depend on the use of this system. You are required to purchase the CPS-remote (GEN3 RF response pad) and register the pad for BIO446L through **My Blackboard** as soon as possible and **on or before August 30th, 2010**. You can purchase the remote at the Calculator/Software Department of the University-Co-op. If you already own a remote of the

above type from a previous semester, you can use it again this semester, but you will still need to enroll (and pay the fee) for this semester's class CPS roster.

Enrolling through Blackboard

- 1) Log on to your Blackboard account
- 2) Click the **Course** tab and choose **Course Tools**.
- 3) Click **CPS Connection**
- 4) Click **Register Class**
- 5) Enter your serial number in the space provided. You can find your serial number on your LCD screen when you turn on your pad.
- 6) Click **Create Your Account**
- 7) If you already have a CPSONline Username and Password, enter it in the space provided. If you've never used CPSONline before, create a CPSONline Username and Password and fill in your contact information. Keep this Username and Password in a safe place.
- 8) For security reasons USE A DIFFERENT USERNAME AND PASSWORD from your UTEID.
- 9) Click **submit** to create your account or login. Follow the wizard to pay your fee and create your account and receive your pad number and registration confirmation.

IMPORTANT NOTE: If prompted for payment information for your particular class, Blackboard needs to use pop-up windows to get you through the payment portion of the enrollment. You must have all pop-up blockers turned off for this portion of the procedure. Please turn off pop-up blocking or use another browser or computer that does not have blocking. If you have any questions, log on to www.einstruction.com and use the **Customer Support** menu option. In the past, students registering their response pads using Macintosh computers have had difficulty completing the payment process. This last step appears to be browser sensitive. Students have remedied this problem by registering on the Mozilla Firefox web browser. **eInstruction technical support at 888-333-7532.**

Exams: There will be **four** lecture exams during the semester, and a comprehensive lecture final exam. Tests will cover factual material, but also emphasize application and synthesis of material, anatomical relationships, physiological processes and problem solving. You may be asked to apply your knowledge in a scenario that was not specifically discussed. You may NOT use an alphanumeric calculator, iPod or related device, or a cell phone during an exam.

Students may be assigned to specific seats in the exam room. If so, you must sit in your assigned seat or risk being counted absent. Seat assignments will be posted in the exam room.

Students with a conflicting University class or examination must submit a request for a different test time in writing **at least one week prior to the scheduled date of the exam**. The request must state the class number, meeting time, and professor's name. People taking non-UT classes such as MCAT prep courses are not allowed to take early exams. Students with a conflict will take the exam in the 2-5 pm time frame the afternoon of the scheduled test day. The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY. In addition, inform Dr. Findell one week before the first exam that you will need special accommodations.

Missed exams: A missed exam will be excused only if: 1) the student can produce a verifiable, written medical excuse OR there has been a verifiable death in the immediate family, AND 2) the student has contacted the instructor PRIOR to the exam. You may email or leave a phone message as soon as you realize you must miss an exam. Again, no makeup exam will be given; you must take the final exam.

There will be no makeup exams. No exceptions. Students who have an **EXCUSED** absence for an exam (see above), will **use the score earned on the final exam to make up for the missed lecture exam score.**

Exam regrades: Questions about grading on the tests must be taken up with the TA or the instructor *no later than 1 week after the test is returned*. This includes questions about addition/subtraction/multiplication errors. If you wish to contest an answer, you must submit a written request with an explanation of why you feel your answer is correct and warrants additional credit. Be sure you have ample justification. For any re-grades other than arithmetic errors, the **entire test will be regraded** and you may lose points as well as gain them. If there is any question that the student has altered the exam after getting it back, there will be no credit given for the answer. Tests written in pencil will not be regraded if there is any sign of erasure. Tests with “white-out” will not be regraded. The key for each lecture exam will be posted in Blackboard.

Bio 446L Grade distribution:

Lecture midterm exams (4)	40%
Lecture final exam	20%
<u>Classwork (CPS)</u>	<u>5%</u>
Lecture total	65%

Lab exams (2)	25%
Lab quizzes	5%
<u>Lab attendance and participation</u>	<u>5%</u>
Lab total	35%

Grades will be on a 10 point scale as follows (with values of 0.5 or above rounded up):
90 -100 = A 80 - 89 = B 70 - 79 = C 60 - 69 = D 0 - 59 = F

This semester the Plus/Minus system for grading will be applied in Bio446L. Full letter grades, letter grades plus or letter grades minus will be determined and submitted. The cutoffs for letter grade pluses and minuses will be determined at the end of the semester.

In the event that the overall performance of the class dictates a final grade curve, the new grade cutoffs will not be rounded up. For example, if 78% is the final average required for a letter B grade, a 77.5 will NOT be rounded up to 78%. Rather, a 78.0 will be the minimum final grade average required for a B.

Classwork: These will include lecture CPS quizzes and CPS problems done in class. These class problems will provide the opportunity for you to practice complex problem solving. They can also help reveal misconceptions and misunderstanding in time to correct them before an exam.

It is the **student's responsibility** to make sure his or her remote pad is properly enrolled in Bio416K and functioning correctly. It is strongly recommended that each student check the scores of his or her first few CPS quizzes as a means to determine if their remote pad is functioning correctly. Scores from the CPS quizzes can be found on Gradebook. Students are also encouraged to regularly check their CPS quiz

scores throughout the entire semester to make sure their remote pad is continuing to function correctly. There will be no make up CPS quizzes and no adjustments made to the final CPS points due to an incorrectly enrolled or malfunctioning remote pad.

Bio446L Laboratory: Attendance in all lab sessions is mandatory. Labs cannot be made up except during the four days in which they are regularly scheduled. If you are ill, you should contact your lab T.A. immediately about missed lab material.

Academic Integrity: It is expected that you will aspire to absolute academic integrity. **All cases of academic dishonesty will be reported to the Dean of Students for inclusion in your academic file,** which renders your chance for professional programs effectively nil. Ignorance of what constitutes academic dishonesty is not an excuse. The standards of academic integrity and conduct are described by the Dean of Students Office of Judicial Services: <http://deanofstudents.utexas.edu/sjs/>.

The following policies will be in effect for all tests and quizzes:

1. Students may be assigned to specific seats in the exam room. If so, seat assignments will be posted at the door to the room on exam days.
2. You must have a non-alphanumeric calculator for the exam. You will need a calculator with a logarithmic function.
3. No talking except to the instructor.
4. Eyes on your own paper, not your neighbor's. If you want to think with your eyes off your paper, look at the ceiling. Students with wandering eyes will be moved to another seat.
5. Books, backpacks, coats, etc. must be placed at the front of the room. Purses beneath your seat. No hats except baseball caps turned backwards.
6. Do not write exams in red or pink ink. No "white-out."
7. All electronic devices, such as cell phones, pagers, radios, must be turned off and placed at the front of the room.
8. No one will leave the room once the exam has started unless she/he has finished the exam.