

University of Oregon
Department of Human Physiology
Course Syllabus

Human Anatomy of the Musculoskeletal System
ANAT 311 Fall 2008
Tues./Thurs. 10:00 - 11:20am / 282 Lillis Complex

Instructor: **Dr. Susan Verscheure**

Office: **131 Esslinger Hall**

Office Hours: Monday 11:00am-12:00, Wednesday 1:00pm-2:00.

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NOTE: I work on email once a day (Monday-Friday) for one hour, usually sometime between ~1 and 3pm. Our course discussion board will also be answered around the same time period.

Required Resources:

1. Anatomy & Physiology Revealed CD-ROM. This is an amazing piece of software that we believe you will use extensively. All students will need access to this software to complete some of the assignments this term.
2. Thieme's NEW Atlas of Anatomy (new for 2008). This beautiful book includes fantastic annotated illustrations of the all the systems of the body (unlike the text used in 2007 which was only musculoskeletal anatomy). An "atlas" provides mostly labeled images of anatomical structures, with little text.
3. Clinically Oriented Anatomy 5th Ed., Keith L. Moore & Arthur F. Dalley. This text offers descriptions and explanations of the anatomy, with many clinical references and descriptions, and should be very useful when preparing your "External Brain" homework assignments.
4. iclicker. We will use personal response systems (or clickers) in class each day to provide you with a chance to challenge your knowledge of anatomy using old exam questions. Please purchase your iclicker at the bookstore and bring it to class every day (starting on the first Thursday's class).
5. Computer access and software: You will need regular access to a computer in this course. You will also require the following software: a web-browser (ex: Firefox, Explorer), and Adobe Reader.

Course Description: "Human Anatomy of the Musculoskeletal System" will use a regional approach to uncover the anatomy of the upper and lower extremity,

neck and trunk. Discussion will include the bony structures, muscles, and ligaments, as well as the nervous and circulatory supply to these regions. ANAT 314 Human Anatomy Lab is a pre or co-requisite, but will ideally be taken simultaneously, as the two courses will compliment each other, and ANAT 311 builds on your discoveries in the lab. Our goal is for you to become deeply knowledgeable about musculoskeletal anatomy, and be able to apply the information you have compiled to clinical situations.

Course Philosophy: It is my intention to provide the best environment to facilitate active learning. You will be encouraged to discuss, challenge, and critique information by interacting with both myself and your fellow students. Information will be uncovered as you create your own unique “External Brain”, which you will use both in class and during examinations to answer clinical questions related to anatomy.

You can expect me to work hard to facilitate your learning, be available to help you outside of class, and be dedicated to your success. **You are expected** to be present for every class, to have class preparations and assignments completed, to check Blackboard Announcements and Discussion Board regularly (2-3 times/week), and to actively participate in class discussions and activities.

Together, we can create a successful and enjoyable learning environment that will prepare you for future learning in the health sciences. Although this course has been designed using the principles of Universal Design, please alert me if some aspect of the course is not accessible to you, and requires adaptation.

Course Expectations: You can expect to spend 9 hours per week working on this 3 credit course (3 hours outside of class for every 1.5 hours in class). Logistical information will be posted on Blackboard’s Announcements. Any student-driven questions about the course should be posted on the Blackboard Discussion Board for all students to read, and respond to if applicable. It is suggested that students check both the Discussion Board and Announcements a minimum of two-three times per week. All PowerPoint presentations used during class will be uploaded in the Blackboard “PowerPoint” folder following class, and all “External Brain” documents (see below for description) and due dates will be found in the Blackboard “External Brain” folder.

Your External Brain: The majority of your efforts in this class will focus on the development of your own unique anatomy resource guide – which we will call your External Brain. Analogous to an external hard-drive for your computer, this resource guide will be the external hard-drive for your brain. Using the outlines provided (called External Brain Chapters), you will prepare for class by collecting and organizing the anatomical information into a format you find most

useful and accessible (providing it follows the External Brain Guidelines). You will be welcome to bring your External Brain with you to examinations to assist you as you answer applied clinical questions on a portion of the exam.

Learning Objectives:

a. Given External Brain Chapters and External Brain Guidelines you will be able to create specific anatomical content in the form of illustrations, charts, or narrative using text, internet, or CD-ROM sources, in a way that most suites your learning or information- retrieval style.

b. You will be able to correctly recall the name, location, and function of anatomical structures outlined in the External Brain Chapters when given closed-book multiple-choice or short answer examinations.

c. You will also be able to correctly recall the following during closed-book multiple-choice or short answer examinations:

- 1) Body movements, and the planes they occur in.
- 2) Geographical relationships between structures.
- 3) Basic mechanisms and terminology of bone growth.
- 4) Classifications of specific structures (ie: type of joint, type of bone, type of muscle, part of the skeleton).
- 5) Muscle fiber directions, attachment sites and actions.
- 6) Basic peripheral circulatory system anatomy.
- 7) Basic anatomy associated with the cross-section of the spinal cord and peripheral nerves.
- 8) Typical mechanisms of injury for specific anatomical structures.

d. You will be able to apply anatomical knowledge to clinical scenarios on open-book multiple-choice examinations while referencing the information constructed in your External Brain.

e. You will be able to discuss your knowledge and application of anatomy with your peers and be able to judge the accuracy of your original exam responses based on this discussion. You will then be able to select which answers from your individual examination to change, and which to keep the same during your group examination.

Discussion Groups: During each class period there will be group activities that are designed to challenge your knowledge of human anatomy. All students will break into **groups of 3-4 in their lab sections (during week 2)**, and these same groups will work together during our class period (I can arrange a group for you if you are not currently enrolled in a lab section). You will be expected to sit with your group during class to facilitate smooth transitions into group activities. Throughout the term, there will be opportunities for your group to take quizzes and exams together. Your group will regularly answer old exam questions

during class using a “clicker” to indicate your selection.

Grading Criteria:

External Brain 15%

Midterm 1 (General anatomy & Upper Extremity Exam) 25%

Midterm 2 (General anatomy, Upper & Lower Extremity Exam) 25%

Final Exam (General anatomy & Upper & Lower Extremity, Back and Neck) 35%

Grades are not assigned on a curve, so you are not in competition with your fellow students. Plus and minus grades (ie: A+, B-) will be assigned in the following way: 80-82% = B-, 83-86% = B, 87-89 = B+.

iClickers:

Each time you use your clicker in class to answer a question, it will register one point (regardless of whether your answer was correct or not). At the end of the term, I will tally up the total number of points possible (which will equal the number of questions asked). All students who have accumulated at least 80% of the total possible clicker points will be considered as fully participating. All fully participating students will be eligible to have their final percentage grade in the class rounded up to next whole number (ie: 89.1% or 89.9% will now equal 90.0% or an A-). Final percentage grades for non-fully participating students will be rounded down to the nearest whole number (ie: 89.1% or 89.9% will equal 89.0% or a B+).

Most importantly, I hope you will find intrinsic value in participating with the iclickers, as they offer you a chance to test your own knowledge on authentic exam questions, with no consequences for being wrong.

External Brain Homework Assignments: To prepare for class discussion, a portion of your External Brain will be due each class period. These homework assignments will be collected from all students each class period. Please ensure your homework assignment is completed and with you during class, to ensure you are awarded the points you deserve. You will lose 2 of the 15 percentage points allotted if you fail to turn in homework. Please note: homework may only be turned in at the end of class when it is called. Students who are unable to attend class, or who forget to turn in their homework (or leave it at home; or printer fails to work; or turn in the wrong homework; etc.) will not have an opportunity to turn in their homework at a later time or date. However, everyone will be granted one freebee in which no points will be deducted if we do not receive your homework...but after that, no matter what the reason, 2 points will be deducted. If an individual assignment is not 100% complete, 0.5 points will be deducted from your homework score. Please keep your graded rubric as proof, in case there is an error in our tally.

Course Examinations: Each examination in our class will have several parts. Part 1 of the exam (Individual Exam) will take place during class and will involve a closed-book portion, and an open-book portion. The closed-book portion will include short straightforward multiple-choice or short answer questions that require the student to be confident in anatomical geography and function. The open-book portion will include application of human anatomy to clinical situations, again using multiple-choice. Students are welcome to use class notes/PowerPoint slides, and their External Brain while answering these comprehensive clinical questions. Part 1 of the exam is worth 80% of the combined exam score.

Part 2 of the exam (Group Exam) is worth 20% of the combined exam score and will take place on the Thursday following the midterm exams, and during the last ½ hour of the final exam period. Although each student will turn in their own answers, students are permitted to work together to discuss their answers.

Part 3 of the exam (Explanation of an answer) IS OPTIONAL and should only be exercised by a select number of students in the class who chose a different answer than the answer key due to the existence of an “alternate meaning” for the words in the question, or have a published resource which clearly supports their answer. It would not be appropriate to submit Part 3 of the exam if the question was mis-read (ie: read the word “true”, when the word “false” was written), or another authority says your answer is correct, but you lack a published resource to back up your answer. Part 3 of the exam must follow an essay format. If your argument has merit, you will redeem the lost points for that question and your Part 1 exam grade will be changed to reflect this. Be sure to check the top of the exam for the due date for Part 3 of that particular exam.

Plagiarism: Plagiarism, as defined below, is obviously not permitted. **If plagiarism is suspected, you will earn an F in the class, and the office of student conduct will be contacted.** Please read the following quotation, which is copied from the following web address libweb.uoregon.edu/guides/plagiarism/students/ and originates from the [Office of Student Life's Academic Dishonesty Policy](#)

"Plagiarism is the inclusion of someone else's product, words, ideas, or data as one's own work. When a student submits work for credit that includes the product, words, ideas, or data of others, the source must be acknowledged by the use of complete, accurate, and specific references, such as footnotes. Expectations may vary slightly among disciplines. By placing one's name on work submitted for credit, the student certifies the originality of all work not otherwise identified by appropriate acknowledgements. On written assignments, if verbatim

statements are included, the statements must be enclosed by quotation marks or set off from regular text as indented extracts....

Unauthorized collaboration with others on papers or projects can inadvertently lead to a charge of plagiarism. If in doubt, consult the instructor or seek assistance from the staff of Academic Learning Services (68 PLC, 346-3226). In addition, it is plagiarism to submit as your own any academic exercise (for example, written work, printing, computer program, art or design work, musical composition, and choreography) prepared totally or in part by another.

Plagiarism also includes submitting work in which portions were substantially produced by someone acting as a tutor or editor."

Weekly Outline (*always a tentative schedule!*):

Week 1: Introduction, Terminology, Anatomical Planes General Anatomy of Bone, Muscle, Joints, Vessels and Nerves

Week 2: Cont'd: General Anatomy. Upper Extremity: Clinical issues & Introduction to Clinical Logic.

Week 3: Cont'd clinical logic. Upper extremity anatomy.

Week 4: Upper Extremity: Shoulder (Dr. Karduna), finish remaining upper extremity anatomy.

Week 5: *Midterm 1 (Tues. Oct. 28 Individual Exam, Thurs. Oct. 30th Group Exam)*

Week 6: Lower Extremity: Hip and knee

Week 7: Lower Extremity: Knee cont'd, ankle, foot & neurovascular.

Week 8: *Midterm 2 (Tues. Nov. 18th Individual Exam, Thurs. Nov. 20th Group Exam)*

Week 9: Back and Neck – Movements, *No Class Thursday Nov. 27 for Thanksgiving*

Week 10: Back and Neck – Joints and muscles

Week 11: *Final exam (cumulative): Monday December 8th 8:00am, 2008.*