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## Syllabus for Physiology 31 – Part B : 2009

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<p>The <b>College Mission Statement</b> states that El Camino College offers quality, comprehensive educational programs and services to ensure the educational success of students from our diverse community.</p> <p>Physiology 31 is a four-unit class that transfers to UC and CSU. If you are planning to get a bachelors degree RN in the future it is a required course.</p> <p>Please keep this syllabus handy. You are responsible for all of the information in this syllabus, whether or not you were present the first day of class.</p> <p>This course has both Anatomy (Ant 30 or 32) and Chemistry (Chem 20, 21A, or 4) as prerequisites. A minimum passing grade of C or better is required in both classes.</p>	<p>The objective of this course is to provide the student with a complete and comprehensive background in all major aspects of physiology. With this knowledge, the student will be able to apply these concepts to the clinical setting. In doing so, the student will be able to complete all the SLOs designed for this course and program. (See page 5)</p> <p>Physiology 31 emphasizes wet labs, computer simulations, &amp; BioPacks testing of normal &amp; abnormal physiological measurements and conditions. (N.B. there are no BioPacks labs in the summer classes)</p> <p>To pass the class you must pass the lab as well as lecture. The dissections are done in small groups; you are expected to function smoothly in a group.</p> <p>This class requires at least 2 hours of homework every night; be forewarned and plan accordingly.</p>
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### Books and Tools

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Books	Tools
<p>HUMAN PHYSIOLOGY by Silverthorn (Required)</p> <p>(NB. - HUMAN PHYSIOLOGY by Sherwood or by Fox are suitable alternate texts)</p> <p>HUMAN ANATOMY &amp; PHYSIOLOGY Cat Version Lab Manual with PhysioEx 6.0 or higher. Marieb (<i>Required</i>)</p> <p>Support Kit (Physiology Interactive Lab Simulations available at College Book Store)</p> <p>Any Illustrated Medical Dictionary (<i>Optional</i>)</p> <p>THE PHYSIOLOGY COLORING BOOK - Kapit (<i>Optional</i>)</p>	<p>4 Scantron answer sheets: #882</p> <p>1 Scantron answer sheet: # 884</p> <p>A supply of small scantrons may be required for surprise quizzes</p> <p>No. 2 (HB) pencil for test taking.</p> <p>Folders for lab report presentations</p>

## Grading

Quizzes	Grading Scale
<p>When time permits, there may be frequent quizzes based on homework and reading assignments. Each quiz will be scored as a per-cent and may add a few percentage points to your grade.</p>	<p>Your final grade is based on the proportional totals of your lecture tests, lab. practicums, (and to a minor degree, lab. reports, and homework). Lecture and lab. work each represent 50% of the grade for a total of 100%. All your six lab and six lecture tests are on a point scale which ranges from 0 to 100. The letter value of each point score is describe in the following table. Please make a note of this scale for future reference.</p>
Examinations	<p style="text-align: center;">Class Point Scale</p> <p style="text-align: center;">A = 88 to 100 B = 75 to 87 C = 62 to 74 D = 50 to 61 F = 0 to 49</p>
<p><b>Lecture Tests:</b> There will be FIVE lecture tests, each graded on a point scale. The total points are determine the final lecture grade. Both the lecture and lab test grades will be factored together to determine the final grade. The final test represents your fifth (5th) test. You are required to take all five tests (a missed test equals a score of zero). Each test covers a particular subject area and is based on the lecture material and notes. Tests are usually multiple-choice questions (MCQ's) with the possibility of true-false, matching, short answer, and essay.</p> <p><b>Laboratory Practicums:</b> There will be five laboratory practicums in which you will be asked to identify structures, describe the various tests and trials that you completed in class or in your simulated computer exercises. Each lab. practicum averages slightly more than 50 questions presented in as fill in the blanks and short answer format. As with the lecture tests, all five lab tests must be taken.</p> <p><b>Test Make-ups:</b> Both lab and lecture tests must be made up within a week upon your return. Failure to do so will result in a zero grade for the missed test.</p> <ul style="list-style-type: none"> <li>• Students must obtain a passing average on both their lab and lecture tests.</li> </ul>	Drops & Withdraws
<p><b>Extra Credit</b></p> <p>You may earn extra credit points by researching various topics in physiology, providing book reports, brief write-ups etc. Your report:</p> <ol style="list-style-type: none"> <li>(1) must be obtained from a recognized scientific journal (e.g. <b>Lancet, Nature, JAMA</b>, etc.) and include a copy of the paper</li> <li>(2) be at least 1 to 2 pages, typed.</li> <li>(3) include a <b>complete bibliography</b></li> <li>(4) turned in no later than the Friday before the final exam (the fifth test).</li> </ol> <p>You may do as many as TWO reports.</p> <p>You may also do lab reports and homework. These are designed to help you better learn the material and not as a method of evaluating your understanding of the course material. Consequently, they do NOT represent a major part of the grade. Please do NOT consider them as a substitute for low test scores!</p>	<p>The demand for this class far exceeds the number of seats available and many students must complete this course before they can move on with their intended career. Because of this, I would suggest that you enroll in this class only if you really need the course and intend to complete it. Remember, if you sign up for the class and then drop it later, your decision has a significant negative impact on the lives of many people.</p> <p><b>Office Clearance:</b> If you do decide to drop the course, you must clear it with not only the admissions office, but also with the lab. technician, who will sign your drop slip. If you simply stop attending class, you will receive an F in the class. In order to drop with a W you must complete the necessary paper work prior to the 14th week deadline.</p>
	Self Evaluation
	<p>I would be doing you a disservice if I were to suggest that this was an easy course. Just as anatomy served as the weeding or filter-out course in many universities. Great celebration parties often occur with the "I survived Physiology" theme occur upon its' successful completion. Please be realistic when arranging your schedule for this semester. Don't overload yourself with too many units, too many job hours, too many family obligations, activities and so forth.</p> <p>To be successful in the course, you must be prepared to read, write, memorize, and apply data at a college level. Don't attempt the class if you are under-prepared!</p>

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## How to Succeed

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Time Management	How to Study
<p>The final grade that you achieve in this class will depend chiefly on two things:</p> <ul style="list-style-type: none"> <li>• 1. Your ability to put in the necessary high quality attendance and study time</li> <li>• 2. Your persistence in mastering the material (organizing and memorizing the information covered in class).</li> </ul> <p><b>Study Time:</b> A minimum of two (2) hours per day (14 hours per week) study time will be needed to get a C in this course. If you have no background in the subject material or if you want better than a C you will probably have to put in considerably more than this minimum.</p> <p><b>Getting Help in Lab:</b> Raise your hand, as I will get to you eventually. While waiting make a list of your questions.</p> <p>If you want help with dissection you must have a full set of dissection tools ready at hand. Take them out of their box before the instructor arrives to help you.</p>	<p>Go for mastery! Perhaps as never before in your life you will find that to learn anatomy it is necessary to study so thoroughly that you master the material. In order to help you do this your instructor will be very specific and explicit about just exactly what you are expected to learn. For example, every lab will include checklists. Once over lightly on the checklist is not going to do it. You are expected to know that checklist thoroughly!</p> <p>Remember, mastery is not demonstrated by your ability to write papers, nor is it a reflection of the amount of homework and lab reports you do. Rather, it is a measure of your ability to immediately recall, analyze, and apply anatomical details when asked (as in written and oral test situations).</p>
Return of Assignments	Other Resources
<p>Homework assignments are due the day of the lecture test. They are usually returned within the week (if not that very day).</p> <p>Lab. reports are also due on the day of the lab test. These papers will then be collected and totaled. Do not expect them to be available for return until the last two weeks of the course.</p> <p>Since we have extremely limited storage space, I cannot keep your assignments (including you lab book) more than 30 days after the course has ended! At that time, they will have to be recycled!!</p>	<p><b>Learning Center:</b> Housed in the library, the learning center has a partial collection of skeletal materials and anatomical models. In addition they have a stereoscopic atlas of human anatomy and an informal collection of taped lectures on human anatomy.</p> <p><b>Computer Lab:</b> The computer lab, on the second floor of the nursing building, is open for drop-ins about 38 hours per week. There are study modules available for most topics covered in anatomy and physiology. A list showing our current offerings by subject category will be made available in a separate handout.</p> <p><b>On-line Tutors:</b> Your textbook includes a phone number and on-line web site which provides access to a series of on-line tutors. These tutors include instructors, professors, and authors and are available 24 hours a day / seven days a week</p> <p><b>Disability Accommodations:</b> Naturally students that require special learning accommodations will be assisted wherever possible both within the class setting and at the student resource center. However, it is essential that you obtain the proper paper work, notify the instructor and take the necessary steps with the student learning services.</p>
Tape Recordings & Videos	
<p>You are always welcome to record the lectures</p>	

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## Rules & Regulations

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Attendance & Tardiness	Hygiene
<p>Late arrivals, early departures, and absences are very disruptive to the class. The presence of everyone is important, and everyone is expected to attend every class, to arrive on time and to stay for the full period. Please schedule yourself to get here early so that if something (like traffic or a parking problem) holds you up you won't be late for class. Occasional surprise quizzes will be given at the beginning of class and make-ups are not allowed. In addition, a sign out sheet will be placed at the front near the end of lab. This will help serve as evidence of your class participation during lab. together with dissection points, participation points, questions, etc.</p>	<p>Food and beverages of all kinds, including water, must be left outside the lab. We must be serious about this regulation since the school is in jeopardy of large fines from Cal-OSHA if infractions are reported.</p>
Contact with Instructor	Models & Biopack equipment
<p>The best method of contact is in person in NATS 107 or the classroom during my office hours (by appointment ) Office Hours are: M/W - 12:00 PM to 1:00 PM T/Th - 10:45 PM to 11:45 PM A quick reference to the college calendar will indicate when my classes are being held. Often this represents a 10-hour (plus) period each day from Monday to Thursday inclusive. Phone <b>(660-3593 X3355)</b> and letter represent the reasonable alternate methods of contact when you are not on campus. At a pinch, you could try <a href="mailto:strench237@juno.com">strench237@juno.com</a> (the college email is too cluttered and difficult to clear, hence it is seldom used) however, <b>please do not depend on email or emissaries (in the form of family and friends).</b></p>	<p>Models &amp; equipment are not to leave the room. Small models must be returned to a specific labeled location on the carts at the front of the room. If a model has parts it must be reassembled after use</p>
Breaks	Electronic Equipment
<p>We are permitted to take two short breaks one between lecture and lab, and one at the end of class. If you wish, you may take no breaks and work right through. This would allow you leave 20 minutes before the stated end of class</p>	<p>All computers can only be signed out with a student ID card. This card is returned after the return of the computer. All BioPack equipment and microscopes must be returned to their respective cupboards or draws. Remember, they need to be repacked in the same fashion in which they were obtained</p>
Lab. Clean-up	Visitors
<p>You are expected to leave the desks, floors, and side counters in your area clean and dry. Sink drains must be cleared. Do not leave chemicals, dirty glassware, etc. in the sinks or on the counters. All equipment and supplies must be cleaned and returned to its correct place. Remember, the technician is not your mother and does not have the time to cleanup after you! Your compliance will be greatly appreciated.</p>	<p>Visitors are not permitted, chiefly because of insurance coverage rules. This also means children, you must arrange for childcare some other way!</p>
	Mobiles or Cell Phones
	<p>All mobiles must be turned off while in class. It is extremely ill-mannered to disrupt an entire class just for your personal communications</p>
	Cheating
	<p>Each of you is expected to keep an eye out for cheating and to report it to the instructor. If someone cheats and alters the class average, it is you who is most directly affected, as it tends to lower the value of your score and hard work. Anyone caught cheating you will be given a zero on the exams.</p> <p>As your lecture and lab. tests will be different, it is extremely important that you indicate the test number and color (or code if given) otherwise your test will be graded by the first key that comes to hand.</p>

As was said earlier, the objectives of a course should include a comprehensive coverage of the material together with an effective means of evaluating the level of mastery achieved by the student. Clearly this is the intent of any well designed course. As of late, a new vocabulary has swept the popular vernacular which is meant to encompass this principle and has become popularly known as 'student learning outcomes' (SLO). While one may question whether this really represents a change in the presentation and evaluation of a course objective or is merely a component of it is a mute point. Like a mission statement, it is here and must be addressed. What follows are but some of the SLO expected for this course.

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## Student Learning Outcomes

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**Student Learning Outcomes:** upon completion of this course, students should be able to:

1. Demonstrate proper microscope techniques to view and identify cells and tissues that compose body organs, and explain the characteristics of the cells and tissue types that make them suited to organ function.
2. Given an unlabeled bone x-ray, the student will identify the bone, the bone region injured, and the type of fracture. The student will be able to identify what muscle actions would be affected based on the analysis of the x-ray. The student should also be able to explain how a fracture heals.
3. Identify the vertebral level at which a needle could be safely inserted to do a spinal tap (lumbar puncture), and give the rationale for choosing that level. The student will also be able to name in proper order the tissues and spaces through which the needle must pass to arrive at the space from which the cerebrospinal fluid will be withdrawn for analysis.
4. Identify muscles that would be attached to the tendons on a knee joint model, and whether they are flexors or extensors. The student will also explain how movement occurs at the knee joint, including what actions flexor and extensor muscles have on a joint, and how this relates to the origin and insertion of the muscles. In describing the joint components, the student should be able to differentiate between the functions of the various connective tissues, such as articular cartilage, ligaments, and tendons surrounding a joint.
5. Identify the cranial nerve affected in an accident patient whose skull x-ray shows a fracture line passing through a part of the skull through which the cranial nerve passes, and who is exhibiting symptoms characteristic of damage to the particular cranial nerve.