Zool 330: Human Anatomy and Physiology I  Fall 2013
Lecture in WG 3 (in the basement): TTh 12:00–1:50
Lab Sections in WG 363: MW 61 10:00–11:50; 62 2:00–3:50; 63 5:00–6:50
    TTh 66 10:00–11:50; 65 2:00–3:50; 64 4:00–5:50

Instructor:      Dr. Jeff Engel
Phone:           298-2041 (office and lab); 298-2270 (fax)
Email:           je-engel@wiu.edu (put "A&P" in subject line, and don't assume I received email unless I reply)
Office:          Waggoner 359 (if I am not there, try my laboratory, Waggoner 373)
Office Hours:    M 11:00–1:00, T 1:00–2:00, W 11:00–12:00, and by appointment or drop-in

ABOUT THIS COURSE:

Nature and purpose: An integrated study of the organ systems of the normal human body. Subjects covered include cells, tissues, skeletal, muscular, central, and autonomic nervous systems. Laboratory includes cat dissection and appropriate physiological experiments. Prerequisite: C or better in BIOL 101 or ZOOL 200 or MICR 200.

Goals and objectives (for Lecture component): Students will be able to:
• describe the major functions of the body systems covered in this course
• explain the cellular mechanisms and structures that underlie those functions
• apply the concepts of feedback, reflex control, and homeostasis in explaining those functions
• describe some of the clinical aspects (such as pathological conditions or clinical assessments)
Time constraints prevent much attention to clinical aspects in lecture, so the fourth objective will primarily be your responsibility. Resources include Clinical Modules in the textbook.

COURSE MATERIALS:


If the Marieb lab manual is a used copy, it must not be marked with answers

Supplemental materials (recommended but NOT required):
                ISBN: 9780895826831

Required Equipment: All students will be required to bring a dissection kit and goggles for dissections. You are responsible for bringing them to every lab unless your instructor has told you there will be no dissection.

Your dissection kit should include:
• scissors (required)
• forceps or tweezers (required)
• blunt "mall" probe (highly recommended)
• scalpel (optional; less essential for dissection than you might expect)

Be sure to get good quality scissors and forceps. Get a scalpel handle that takes disposable blades (unless you are prepared to resharpen your own blade.)

Dissection kits and goggles can be purchased at the WIU bookstore. Be sure to get the kits we ordered for A&P, not the cheaper kits for intro classes. (If you already have a kit from another course you may use it.)

GOGGLES MUST BE WORN WHENEVER YOU ARE DISSECTING OR OBSERVING DISSECTION. If you don’t have goggles on those lab days you will not be allowed to participate and you will be counted absent. The main risk is from chemical splashes or flicked bits of preserved tissue. Therefore, goggles should cover the sides, top and bottom.

Latex or synthetic gloves will be provided. We can provide synthetic gloves to students who react to latex.
ADDITIONAL RESOURCES AND SUPPORT:

**Study Skills Seminars** are offered weekly at Memorial Hall - Conference Room 124. Get the schedule at: [http://www.wiu.edu/student_services/ucc/programs/studyskills.php](http://www.wiu.edu/student_services/ucc/programs/studyskills.php)  
More tips for study and time management are at: [http://www.wiu.edu/student_services/ucc/resources/](http://www.wiu.edu/student_services/ucc/resources/) and: [http://www.wiu.edu/users/ccss/study_skills/](http://www.wiu.edu/users/ccss/study_skills/)

**Study Skills Seminars in Fall 2013**
4:00 P.M. University Counseling Center  
Seminars held in Memorial Hall - Conference Room 124

- September 4 (Wednesday) - Time Management & Motivation  
- September 11 (Wednesday) - Reading Comprehension & Memory  
- September 18 (Wednesday) - Managing Test Distractions & Anxiety  
- September 25 (Wednesday) - Preparing for Midterms  
- October 2 (Wednesday) - Test-Taking Strategies  
- October 8 (Tuesday) - Time Management & Procrastination  
- October 22 (Tuesday) - Listening and Note-Taking  
- October 29 (Tuesday) - Reading Comprehension & Memory  
- November 5 (Tuesday) - Managing Test Distractions & Anxiety  
- November 12 (Tuesday) - Preparing for Finals

**Tutoring Sessions:** Now that this is a 300-level class, there are no formal tutoring sessions through the ASC. However, you are very welcome to set up meeting times with Dr. Engel or the laboratory teaching assistants.

**Audio Recorders:** You may record my lectures for your own review. I retain the copyright for my lectures.


If you bought a new copy of the textbook or lab manual that includes a MasteringA&P access card, you can register for this publisher’s site to use some very nice additional resources.

For the textbook, the Course ID is “MAPENGE LTBF2013”. If you have both the textbook and lab manual access cards, I recommend registering for the textbook Course ID first.

For the lab manual, the Course ID is “MAPENGELLMF2013”.

**Disability Resource Center** offers various kinds of support for note taking, exams, etc. to qualified students. They are at 117 Seale Hall, 298-2512, and on the Web at: [http://www.wiu.edu/student_services/disability_resource_center/](http://www.wiu.edu/student_services/disability_resource_center/)

**Accommodations:** In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. For the instructor to provide the proper accommodation(s) you must obtain documentation of the need for an accommodation through Disability Resource Center (DRC) and provide it to the instructor. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Resource Center (DRC) at 298-2512 for additional services.
GRADING AND EXAMS:

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Lecture</td>
<td>500</td>
</tr>
<tr>
<td>3 one-hour exams</td>
<td>380 pts (125 pts for Exams 1 &amp; 2, 130 pts for Final Exam)</td>
</tr>
<tr>
<td>12 online quizzes</td>
<td>120 pts (10 pts each) (if more than 12 quizzes, will drop low scores)</td>
</tr>
<tr>
<td>Laboratory</td>
<td>500</td>
</tr>
</tbody>
</table>

Grading scale will be:

- 93–100% = A
- 90–92.99% = A–
- 87–89.99% = B+
- 83–86.99% = B
- 80–82.99% = B–
- 77–79.99% = C+
- 73–76.99% = C
- 70–72.99% = C–
- 67–69.99% = D+
- 63–66.99% = D
- 60–62.99% = D–
- 59.99% or less = F

Theoretical knowledge and practical experience are equally important for this subject. Therefore, the course grade will not be more than one level (10%) above the percentage earned in either Lecture or Laboratory. Note that this only affects students with more than a 20% disparity between Lecture and Lab scores.

Types of examinations (for the Lecture part of the course):

- **Quizzes** will be given online using WesternOnline (Desire2Learn). You will have about a week to finish each quiz. *There will be no makeups for missed quizzes, so take them early.*
- **Exams** will include multiple choice and short answer items. You may need to apply your knowledge to scenarios that have not appeared in lecture or your textbook. To encourage you to use textbook learning tools, *some questions will be taken from the textbook* (sometimes with modification). The Final Exam will not be comprehensive, but questions on any exam may incorporate knowledge from earlier parts of the course. I try to score exams within a week, but that may not always be possible.

**Adjustment of exam scores:** Sometimes particular exam questions turn out to be more difficult or obscure than I expected. I believe that in a good-sized class of committed students, earning an "A" must be a realistic goal. Therefore, I adjust exam scores in two steps. First, any multiple choice item answered correctly by fewer than 25% of students, or short answer item with an average score below 25%, is eliminated and all students get those points. Second, points are added to every student's score so that the high score in the class becomes 100% of the perfect score.

Note that the above policy of adjusting exam scores is for lecture exams only. Laboratory instructors will explain their own scoring policies, which will be different from the above.

**STATE ACCREDITATION POLICY INFORMATION:**

“In accordance with Illinois State Board of Education certification rules, all candidates seeking teacher certification are required by Western Illinois University to obtain a grade of “C” or better in all directed general education course, all core courses, and all courses in the option. Note: A “C–” is below a “C”.” Please note: any secondary science teacher certification student wanting to see how this course is aligned with the State and National Standards should see their advisor and/or examine the Secondary Science Teacher Certification WesternOnline Advising site.
ATTENDANCE AND MAKEUP EXAMS:

**Lecture:** Many students in this course are preparing for professions with very high standards, such as nursing. If you are truly committed to measuring up, you will do your best to attend every lecture.

Attendance is required for lecture exams. Makeup exams will only be given if the absence is due to an official university trip *with advance notice*, an important personal event *cleared with me in advance*, or a personal or family emergency *with documentation*. Oversleeping or forgetting the date of an exam WILL NOT be accepted as an excuse. If you know about a conflict in advance, I may allow you to take a "makeup" exam earlier than the scheduled time. EXCUSES MUST BE SUPPORTED WITH DOCUMENTATION, and it is your responsibility to obtain this documentation. If you do not provide documentation, there will be no makeup.

MAKE-UP EXAMS WILL BE ESSAY OR SHORT ANSWER FORMAT because those are easier to write than multiple-choice items. Make-up exams must be taken within one week of the scheduled time, except in exceptional circumstances such as an extended illness. A student who misses the final exam (with valid excuse) must make up the exam within the first six weeks of the next semester. A score of zero will be given for a missed exam that is not made up within the stipulated time period.

**Laboratory:** Attendance is mandatory. If you miss more than 2 labs without excuse or more than 4 lab sessions for any reason you will FAIL THE COURSE. In addition, the laboratory score includes points for perfect attendance, which you forfeit if you miss more than one lab session without valid excuse as determined by your laboratory instructor.

Be aware that laboratory practical exams are usually taken down at the end of the day to make room for the next day's work. It is a substantial burden to set up an exam for one student. Makeup exams or quizzes will only be allowed if the absence is excused WITH DOCUMENTATION. The laboratory instructor will determine what constitutes an acceptable excuse, according to policies stated in his or her syllabus. These policies may be different than the ones for lecture because of the different nature of laboratory work. It is your responsibility to contact your laboratory instructor as soon as possible about missing an exam. Makeup exams must be taken WITHIN ONE WEEK of the scheduled time. Makeup exams may be different from the original exam.

**WesternOnline Quizzes**

Weekly quizzes will be posted by Thursday night. The deadline for completing each quiz will be the following Tuesday night (actually Wednesday morning at 4:00 am). Don’t leave it for the last minute, because there will be NO MAKEUPS for missed quizzes (even if due to illness or computer problems). However, there will probably be more than 12 quizzes in the semester, so a 0 score can be replaced (see Grading policy for quizzes).

Quizzes are open-book and open-note, but any help from other people (besides the course instructors) is prohibited.
ACADEMIC CONDUCT:

It is the student’s responsibility to be familiar with the information (including required forms, definitions, and time lines) contained in the following university web sites. Each student should access these web sites and carefully read the information they contain. Your instructors will hold you responsible for knowing this information. If you have questions about any of the information contained in the web sites, ask your instructor.

- Students’ Rights and Responsibilities: http://www.wiu.edu/provost/students.php
- University Final Exam Policy: http://www.wiu.edu/policies/finexam.php
- Grade Appeal Policy: http://www.wiu.edu/policies/gradeapp.php

Academic dishonesty, including but not limited to plagiarism, cheating, or lying, will be penalized in accordance with university policy. Penalties may include failing the course or expulsion from the university. You should assume that collaborating with other students on class work IS NOT allowed unless permission is given explicitly. If in doubt, ask your instructor! Please review the following policy of the WIU Department of Biological Sciences:

Definition of Plagiarism

The faculty of the Department of Biological Sciences subscribe to a definition of plagiarism as expressed by V. E. McMillan in Writing Papers in the Biological Sciences (Bedford/St. Martin’s Press, New York, pg 16)

“Plagiarism is the theft of someone else’s words, work, or ideas. It includes such acts as (1) turning in a friend’s paper and saying it is yours; (2) using another person’s data or ideas without acknowledgement; (3) copying an author’s exact words and putting them in your paper without quotation marks; and (4) using wording that is very similar to that of the original source but passing it off as entirely your own even while acknowledging the source.”

This includes information in textbooks or laboratory manuals, honors and masters theses, all writing assignments, and images. The faculty of the Department attempt to monitor student writing assignments (essay exams, papers, laboratory reports, and other writing assignments or exercises) for incidence of plagiarism. If plagiarism is found, the faculty will discuss the situation with the student and indicate to the student the penalty for this academic dishonesty. Potential penalties include those cited in the academic dishonesty section of the WIU web page, http://www.wiu.edu/policies/acintegrity.php.

WesternOnline Quizzes

The online WesternOnline quizzes are meant to prompt you to read and think about the textbook. THEY ARE OPEN-BOOK, so any student who understands the book section should score well. However, students must take these quizzes ALONE, without any help from others.

Electronic Devices at Lecture

Use of any electronic devices during an exam period is prohibited without specific permission from me, and may be grounds for failing the exam. During other lecture periods, keep the use of electronic devices to a minimum. If I feel your use of a device is disrupting the class (or distracting me), I will ask you to put it away, but I expect you to show courtesy so I won’t even have to think about that.

In the laboratory, you must follow your lab instructor’s rules for electronic devices.
<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-20</td>
<td>L01: Introduction, Homeostasis</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>08-22</td>
<td>L02: Chemistry – Water, pH</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>08-27</td>
<td>L03: Chemistry – Biological Molecules</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>08-29</td>
<td>L04: Cells – Structures and Function; Cancer</td>
<td>Chapter 3</td>
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<tr>
<td></td>
<td>(September 2–3: NO LABS because of Laboratory Day)</td>
<td></td>
</tr>
<tr>
<td>09-03</td>
<td>L05: Cells – Osmosis, Diffusion, Cell Junctions</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>09-05</td>
<td>L06: Tissues, Skin</td>
<td>Chapters 4, 5</td>
</tr>
<tr>
<td>09-10</td>
<td>L07: Skin, Bone</td>
<td>Chapters 5, 6</td>
</tr>
<tr>
<td>09-12</td>
<td>L08: Bone, Synovial Joints</td>
<td>Chapters 6, 9</td>
</tr>
<tr>
<td>09-17</td>
<td>L09: Inflammation, Healing</td>
<td>(parts of several chapters)</td>
</tr>
<tr>
<td>09-19</td>
<td>L10: Skeletal Muscle</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>09-24</td>
<td>L11: Skeletal Muscle</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>09-26</td>
<td><strong>Exam 1: L01–L10</strong></td>
<td></td>
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<tr>
<td>10-01</td>
<td>L12: Skeletal Muscle</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>10-03</td>
<td>L13: Cardiac and Smooth Muscle</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>10-08</td>
<td>L14: Neurons, Action Potentials</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>10-10</td>
<td>L15: Synapses, Neurotransmitters</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>10-15</td>
<td>L16: Neural Processing, Reflexes</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>10-17</td>
<td>L17: Spinal Reflexes</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>10-22</td>
<td>L18: Motor Control</td>
<td>Chapters 13, 14</td>
</tr>
<tr>
<td>10-24</td>
<td>L19: Brain and Spinal Chord</td>
<td>Chapters 13, 14</td>
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<tr>
<td>10-29</td>
<td>L20: Autonomic NS</td>
<td>Chapter 16</td>
</tr>
<tr>
<td>10-31</td>
<td><strong>Exam 2: L11–L19</strong></td>
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</tr>
<tr>
<td>11-05</td>
<td>L21: Autonomic Nervous System, Sensation</td>
<td>Chapters 15, 16</td>
</tr>
<tr>
<td>11-07</td>
<td>L22: Sensation</td>
<td>Chapters 15, 17</td>
</tr>
<tr>
<td>11-12</td>
<td>L23: Somatic Senses and Sensory Pathways</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>11-14</td>
<td>L24: Smell, Taste</td>
<td>Chapter 17</td>
</tr>
<tr>
<td>11-19</td>
<td>L25: Vision</td>
<td>Chapter 17</td>
</tr>
<tr>
<td>11-21</td>
<td>L26: Vision</td>
<td>Chapter 17</td>
</tr>
<tr>
<td>11-26</td>
<td><strong>No Class - Thanksgiving</strong></td>
<td></td>
</tr>
<tr>
<td>11-28</td>
<td><strong>No Class - Thanksgiving</strong></td>
<td></td>
</tr>
<tr>
<td>12-03</td>
<td>L27: Equilibrium</td>
<td>Chapter 17</td>
</tr>
<tr>
<td>12-05</td>
<td>L28: Hearing</td>
<td>Chapter 17</td>
</tr>
</tbody>
</table>

**Final Exam covers L20–L28.** Tuesday, December 10 – 1:00–2:50 PM (*not* at noon)

The above schedule is tentative and all aspects, including exam times, are subject to change with notice. More specific textbook reading assignments will be in Learning Objectives throughout the semester.

The schedule for biweekly laboratories will be distributed at the first lab meeting.