Zool 230: Human Anatomy and Physiology I Fall 2012
Lecture: TTh 12:00–12:50, Waggoner 3 (in the basement)
Lab: MW 10:00–11:50 or 2:00–3:50 or 5:00–6:50; or TTh 10:00–11:50 or 2:00–3:50 or 4:00–5:50; WG 363

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, W 11:00–12:00, Th 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. Recommended background: Zool 200.

Goals and objectives (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 sharpen 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 a 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 risk is from chemical splashes or flicked bits of preserved tissue, not impact. Therefore, goggles should cover the sides, top and bottom; safety glasses without such protection will not do.

It is easy to scratch the soft inner surface of fog-resistant lenses. To clean, wash with lots of water and a mild liquid detergent; scrub gently with fingers, not paper towels; rinse with distilled water and air dry.

Latex or vinyl gloves will be provided. We can provide vinyl 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

More tips for study and time management are at: http://www.wiu.edu/student_services/ucc/resources/ and: http://www.wiu.edu/users/ccss/study_skills/

Tutoring Sessions are offered for this class. Check at http://www.wiu.edu/advising/tutoring/index.php

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

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/

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:

lecture 500 points
3 one-hour exams 380 points (125 pts for Exams 1 & 2, 130 pts for Final Exam)
12 MasteringA&P quizzes 120 points (10 pts each)
laboratory 500 points

Grading scale will be:

93–100% = A 90–92.99% = A–
87–89.99% = B+ 83–86.99% = B
80–82.99% = B– 70–72.99% = C–
77–79.99% = C+ 73–76.99% = 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 topic. 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 (Lecture part of the course):

Quizzes will be given online using the MasteringA&P system that came with your new textbook. 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 (often changed to multiple choice). The Final Exam will not be comprehensive, but questions on any exam may incorporate knowledge from earlier parts of the course. I try to return 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.

Study Skills Seminars Fall 2012

4:00 P.M. University Counseling Center
Seminars held in Memorial Hall - Conference Room 124

- September 6 (Thursday) - Time Management & Motivation
- September 20 (Thursday) - Reading Comprehension & Memory
- September 27 (Thursday) - Managing Test Distractions & Anxiety
- October 4 (Thursday) - Preparing for Midterms & Test Taking Strategies
- October 15 (Monday) - Time Management & Procrastination
- October 22 (Monday) - Listening and Note-Taking
- October 29 (Monday) - Reading Comprehension & Memory
- November 5 (Monday) - Managing Test Distractions & Anxiety
- November 12 (Monday) - Preparing for Finals
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

**WesternOnline Quizzes**

The online WesternOnline quizzes are meant to prompt you to read and think about the textbook. THEY ARE
OPEN-BOOK. Any student who takes the time to understand the readings should score well.

Students must take these quizzes alone, without any assistance from others.

**MasteringA&P**

This year I will not be requiring you to participate in MasteringA&P, but if you bought a new copy of the
textbook or lab manual with a MasteringA&P access card, you can register to use some additional resources.

For the textbook, the Course ID is “MAPENGEL2012FTB”. *I recommend registering for this course first* if you
have both the textbook and lab manual access cards.

For the lab manual, the Course ID is “MAPENGEL2012FLM”.

### LECTURE SCHEDULE

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<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Readings</th>
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<tbody>
<tr>
<td>08-21</td>
<td>L01: Introduction, Homeostasis</td>
<td>Chapter 1</td>
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<tr>
<td>08-23</td>
<td>L02: Chemistry – Water, pH</td>
<td>Chapter 2</td>
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<tr>
<td>08-28</td>
<td>L03: Chemistry – Biological Molecules</td>
<td>Chapter 2</td>
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<tr>
<td>08-30</td>
<td>L04: Cells – Structures and Function; Cancer</td>
<td>Chapter 3</td>
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<td></td>
<td>(September 5–6: no labs because of Labor Day)</td>
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<tr>
<td>09-04</td>
<td>L05: Cells – Osmosis, Diffusion, Cell Junctions</td>
<td>Chapter 3</td>
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<tr>
<td>09-06</td>
<td>L06: Tissues, Skin</td>
<td>Chapters 4, 5</td>
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<td>09-11</td>
<td>L07: Skin, Bone</td>
<td>Chapters 5, 6</td>
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<tr>
<td>09-13</td>
<td>L08: Bone, Synovial Joints</td>
<td>Chapters 6, 8, pages 147–315</td>
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<tr>
<td>09-20</td>
<td>L10: Skeletal Muscle</td>
<td>Chapter 9</td>
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<tr>
<td>09-25</td>
<td>L11: Skeletal Muscle</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>09-27</td>
<td><strong>Exam 1: L01–L10</strong></td>
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<td></td>
<td>L12: Skeletal Muscle</td>
<td>Chapter 10</td>
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<td>10-09</td>
<td>L14: Neurons, Action Potentials</td>
<td>Chapter 11</td>
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<td>10-11</td>
<td>L15: Synapses, Neurotransmitters</td>
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<td>10-16</td>
<td>L16: Neural Processing, Reflexes</td>
<td>Chapters 11, 12</td>
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<td>10-18</td>
<td>L17: Spinal Reflexes</td>
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<td>10-23</td>
<td>L18: Motor Control</td>
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<td>10-25</td>
<td>L19: Brain and Spinal Chord</td>
<td>Chapters 12, 13</td>
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<td>10-30</td>
<td>L20: Autonomic NS</td>
<td>Chapter 14</td>
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<tr>
<td>11-01</td>
<td>L21: Autonomic Nervous System, Sensation</td>
<td>Chapters 13, 14, 15</td>
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<td>11-06</td>
<td><strong>Exam 2: L11–L19</strong></td>
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<tr>
<td>11-08</td>
<td>L22: Sensation</td>
<td>Chapter 13, 15</td>
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<td>11-13</td>
<td>L23: Somatic Senses and Sensory Pathways</td>
<td>Chapter 13</td>
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<td>11-15</td>
<td>L24: Smell, Taste</td>
<td>Chapter 15</td>
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<td>11-20</td>
<td><strong>No Class - Thanksgiving</strong></td>
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<tr>
<td>11-22</td>
<td><strong>No Class - Thanksgiving</strong></td>
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<tr>
<td>11-27</td>
<td>L25: Vision</td>
<td>Chapter 15</td>
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<tr>
<td>11-29</td>
<td>L26: Vision</td>
<td>Chapter 15</td>
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<tr>
<td>12-04</td>
<td>L27: Equilibrium</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>12-06</td>
<td>L28: Hearing</td>
<td>Chapter 15</td>
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**Final Exam covers L20–L28.** Tuesday, December 11 – 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.

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