***Anatomy and Physiology 211: Fall 2019***

**Instructor: Ted Wilson PhD**

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Lecture Site/Time: 103 Stark (11:00-11:50 a.m.)

**Instructors course website for lectures and laboratory activities:**

**http://course1.winona.edu/twilson** .

**Course Description:**

Anatomy and Physiology 211 is the first part of a two semester sequence designed especially for students in Nursing and Health and Human Performance. The course covers the basics of human body orientation, anatomy, chemistry, cytology, histology, and organ systems. When possible we will emphasize the interdependence of the relationships between these organs systems during health and disease. The course also provides students with the terminology and understanding needed for success in AP 212. The laboratory activities are timed to roughly correlate with the materials taught in lecture. Laboratory activities include physiological experiments, use of cadavers and computers.

***In the interest of minimizing distractions in lecture to other students, the use of laptop computers during lecture is prohibited. This means you will need to print notes and/or take notes paper in class. Students who wish to use computers for notes or other reasons will need to take AP211 from another instructor.***

**Text Book(s): *Saladin, KS: Anatomy and Physiology 8th Edition (available new at bookstore with electronic access loose leaf about $120)-hardback cover is best***

***Note: Saladin 7th Edition is nearly equivalent*** for only about $16 delivered ***via Clegg.com, Amazon.com or other book website) and I used none of the publisher’s electronic materials for exams***. Chapter sequence and content of these two books is almost identical, though the page numbers and figures may be slightly different. While only the 8th edition has online support, I find that my students benefit most from studying lecture content and book, not the publisher website.

**Downloadable Laboratory activities will be available from the instructors course website http://course1.winona.edu/twilson** .

**Suggested:** You may find that using a good medical dictionary may be helpful. Frequent use of the many free educational resources available at online sources will also help. Another nice resource for the helping you get through the lab is: ***A Photographic Atlas for the Anatomy and Physiology Lab* Van De Graaff and Crawley, Morton Publ Co. (find it on Amazon.com for about $26)**

**USP Natural Science Requirements:** This course provides students with the opportunity to practice scientific inquiry through hands-on investigations and to analyze and report the results of those investigations and satisfies 4 credits of USP Natural Science. This course satisfies the following outcomes:

a.       understand how scientists approach and solve problems in the natural sciences;

b.       apply those methods to solve problems that arise in the natural sciences;

c.        use inductive reasoning, mathematics, or statistics to solve problems in natural science;

d.       engage in independent and collaborative learning;

e.        identify, find, and use the tools of information science as it relates to natural science;

f.         critically evaluate both source and content of scientific information;

g.       recognize and correct scientific misconceptions.

***Additionally this course will provide students the opportunity to practice scientific inquiry through hands-on investigations and to analyze and report the results of those investigations.***

**Course Grading:**

Grading will be based on numerical scores at the end of the semester. It is up to you to apply yourself towards achieving the grade you desire. **There will be no extra credit offered in this course and no exam “re-takes”, so take each exam very seriously!** All exams will be closed book. Cheating on a test or quiz may result in a grade of “F” for the test and the course, in addition to possible suspension from WSU. Most folks work very hard for the grades they earn, if you see cheating please let the instructor know about it so that the situation can be handled in a manner that is appropriate and appropriate and fairly.

**Grade Cutoffs (“the curve”):** A=90%, B=80%, C=70%, D=60%, Below 60%=F

Please plan ahead to earn the grade you need, there is NO extra credit in this course.

Lecture Exams: 3 X 50 pts

Final Exam: 1 X 75 pts (25 pts Unit/ 50 pts Comprehensive)

Laboratory Exams: 4X 50 pts each

Lecture Quizzes: 10-20 pts each (three to four quizzes over the semester).

Lecture assignments: 30-40 points

Writing Assignment: 25 pts

***Exam dates are important to remember:*** the instructor does not promise that you will be given a make-up if you miss a test. If you must miss an exam you must contact the instructor by email or phone (preferably both) ***before*** the exam is handed out! If you are sick bring a doctors notice. Failure to do so may jeopardize your chance to take the test late.

**Attendance and Participation:**

 Attendance will not be recorded in lectures, it is simply your responsibility to know the material covered and to do well enough on the test to get the grade you desire. Poor attendance invariably means failing test scores and the reality that you will probably need to take AP 211 again. The instructor may also choose to give a “pop quiz” if attendance is particularly poor, if you miss the quiz (were not there), there will be no make-up. When possible, lecture outlines will be provided for you online to assist your note taking. Your active participation is GREATLY encouraged in lectures and participation will greatly improve your course performance. Participation will also improve the outcome for other students in the course. If you have questions please email, call, or ***just visit the instructor at his office.***

 Attendance in lab is required. Occasionally, a student may need to make-up a lab due to possible sickness, snow day or a university holiday, this will be discussed as needed in class and lab. It is the responsibility of the student to bring an updated copy of the lab manual to the lab and to read each days activity prior to coming to lab.

**Studying Habits and Grades Received:**

 Most students also find that they need to spend at least two to three hours of quality time ***(NO incoming text messages, t.v., radio, distractions, this is to be true thinking time)*** studying out of class for each hour of lecture to earn a grade of “B” or better. Some students need to spend much more, occasionally students get by with less. What is most important is that you find a way to succeed in learning and showing that you have learned the materials. The best way to learn is variable from student to student, try different methods until you find one that works for you, and try to ‘think” about what you have learned when you have the chance. Most students find they learn material best (most easily) when they work in small groups both in lab and for the lecture material.

 When possible work in small groups in lab because there is a lot of material to cover and limited time to cover it. The amount of material covered in each 2 hour lab is much more than the typical student could memorize in a 2 hour period. This means that you will need to make time to come into the open lab times. Open lab times will be posted on the door to Stark 217 as they are arranged. With over 550 students in AP 211 and a limited amount of space in Stark 217, if you wait till the week before the lab exam to come to review during the open lab, you will do poorly on the lab exam…PLAN AHEAD AND STUDY AS YOU GO! Last minute cram sessions may have worked before, but they rarely lead to success in Anatomy and Physiology.

**Students with Special Needs:**

 Some students have disabilities that prevent them from succeeding in a course with traditional learning/testing/evaluation methods. If you are a person who has a documented need for special academic accommodations, please contact both Dr. Ted Wilson and possibly one of the following: WSU Disability Resource Center (Phone: 457-2391 voice) or Student Counseling Center (Phone: 457-5330). Making arrangements for non-traditional needs is your responsibility and must be coordinated with the instructor. Student Support Services can also be contact with regards to setting up a tutor at 457-5465. Students with writing needs are advised to visit the Writing Center. Students are also welcome to visit the Academic Assistance Center for additional tutorial needs and questions at their website: <http://www.winona.edu/tutoring/>

**Supplemental Instruction is Open to All:**

 Tutoring services has funded a special program to help AP 211 students master appropriate study habits and the course material. Upper-level Biology students will attend lectures and meet with students at a time that will be decided early in the semester. The primary purpose of SI is to introduce students to tricks to improve study habits and to help you understand the course material. SI is not and should not be used as a substitute for studying. SI should help borderline students make it through AP 211, it usually is less helpful for students who already have good study habits and exam scores.

**Supplemental Instruction (SI) When/Where: To be determined at end of first week of class**

**Cadaver Use:**

No cell phones and/or cameras are allowed in the laboratory. Videotaping or photographing the human anatomical material is strictly prohibited without the prior consent of the University of Minnesota’s Anatomy Bequest Program Proposal Review Committee, including but not limited to any images which will published or distributed.

Students shall track all human anatomical material by keeping the donor’s acquisition number tag with the donor at all times.  If the tag becomes disassociated from the donor, the course director should be contacted immediately.  All tissue removed from the donor during dissection must be retained, identified with the donor’s acquisition number and tracked.  Bins will be provided for appropriate storage of any removed tissues, and should stay with the donor at all times. Anatomical material must not be removed from the dissecting laboratory. Unauthorized access to the lab is not permitted – i.e. dissection and/or study of the donors without the permission of the instructor is not allowed (MN State Law).  Additionally, individuals not enrolled in the course are not permitted to view the donors without permission by the instructor and fulfillment of all stated requirements. Disrespectful language, improper handling, or any other behavior deemed inappropriate in regards to the donor or dissection process will not be allowed or tolerated.  Both conversational and written language relating to the donor and donor dissection by human anatomy students lab must be respectful and discrete. Any information about the donor including the donor’s demographical, social or medical history is confidential and students are not allowed to disclose this information. ***The use of the Internet in general, and social media sites in particular, including, but not limited to, Facebook, MySpace, Twitter, etc., by students as a venue for discussing any aspect of the donor, cadaver images, or donor dissection is strictly prohibited and can be grounds for dismissal from WSU, as well as this class.*** Proper attire must be worn for all anatomical study.  This includes long pants or floor length skirt, full coverage t-shirts (short or long sleeve), and closed-toed shoes. The laboratory must remain clean.  Laboratory tables and counters should be thoroughly washed after each lab, and the floors should be kept free of spills and wastes

***ANATOMY AND PHYSIOLOGY 211***

***Course Schedule: Lecture and Lab Links:*** outline is subject to change and students are advised to download the links prior to each lecture and laboratory activity so they are prepared for these activities.

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| Week | Lecture Topics | Lecture Readings | Laboratory Topics |
| 8/26 | Orientation of the human body and introduction | CH1, 2, Atlas A | **Bones and Skeletal System Lab** |
| *Open Lab Times: You can always go to morning open lab 6am-8am when classes begin to use the lab, Evening open lab will be 8-10 pm M-Th, Friday open lab is 6am-4pm. Sunday open lab will be 6-8 pm* |
| 9/2 | Cellular structure and function **Monday: No Class/Lab*****MakeUp your Monday Lab on Tuesday, Wed or Thur*** | CH3 | Finish last half of bone/skeletal system using same lab handout from week one at your regular assigned lab section. |
| 9/9 | Protein synthesis and genetic replication | CH4 | **Lab Exam #1 Wed or Thur****You choose the day and it is open lab Monday-about 1pm Tuesday** |
| **MONDAY 9/16 Quiz #1: 20 points up to all material covered in lecture (see notes to Friday)** |
| 9/16 |  DNA and RNATranscription/Translation **AssignDue Wednesday10pts** | CH4 | **Cell Membranes Lab** |
|  |
| 9/23 | **Monday Exam #1:** **CH 1, 2, 3, 4 and Atlas A** | CH5, 6 | **Microscopy and Tissues I**Tissue hints and connective tissue ID Tissue “Hints” and Help Link |
| 9/30 | Tissues and Histology | CH 6,7 | **Tissues II and Integument, go to open lab because the *lab exam is next week*!** |
| 10/7 | **Monday Oct 7th: 20 point lecture quiz up to Friday Oct 4th notes**Integument/Bone Tissue | CH 7, 8 | **Lab Exam #2 Wed or Thur** |
| ***Monday 10/7:* Writing Assignment Explained in Class*****Tuesday Oct 8th- University Improvement Day-Anatomy and Physiology labs meet as usual******Friday 10/11: Special Lecture Guest- Library resources and finding primary literature-mini lectures*** |
| 10/14 | Skeletal System | CH 8 | **Muscular System** |
| 10/21 | Skeletal System | CH9,10 | **Muscle Cytology Lab** |
| **Skeletal Muscle Assignment is due Monday October 20 (Wednesday = -4 pts late fee)** |
| 10/28 | Skeletal SystemJoints and end of skeleton | CH 10, 11 | **Lab Exam #3: Wed or Thur Muscle System and Muscle Physiology** |
| 11/4 | **Friday Nov 8th Exam #2: CH 5,6,7,8,9,10, 11**Muscular System | CH11, 12 | **Nervous System: Brain** |
| 11/11 | Nervous Tissues  | CH12, 13 | **Nervous System: Spinal cord and Nerves** |
| **Peer-reviewed Literature Writing Assignment: 20 points+ 5pts Library attendance coupon****Due Wednesday November 13th****Monday Nov 11th is Veterans Day Observance: No Classes at WSU** |
| 11/18 |  Spinal Cord and Senses | CH 14,15 | **Nervous System II:** **Eye and Ear**  |
| **11/25 Monday Exam#3: CH 11, 12, 13, and 14****No lecture Wed/Fri of Thanksgiving Break** | **Open Evening 6-8pm Lab Sunday Nov/24 and Mon 11/25:** **Open Lab Tuesday 6am-4pm No open lab 4pm Tue-Sunday** |
| 12/2 | Senses and Autonomic Nervous System | CH 15, 16 | **Lab Exam#4: Wed/Thur****Brain, Nerves, Eye, and Ear** |
| ***Final Exam******75 points*** | ***25 pts: Unit Test from CH 15, and 16*** ***50 pts: Comprehensive Exam covers all materials covered in previous semester.*** |  |
| **Thursday, December 12th** 8:00-10:00 a.m.  Final Exam for classes scheduled for --- 11:00-11:50 a.m. MWF |