ANP130: Introduction to Anatomy and Physiology I  
Sections B and C (MWF 9:20-10:30am (B) / 10:40-11:50am (C), SH107)  
Carroll University, Fall 2017

Professor: Susan M. Hanson, Ph.D. (Dr. Hanson)  
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Office: Rankin 303  
Office hours: M,W,F: 3:00-4:00pm; T: 12:30-2:30pm (appointments recommended)

Course Description:  
This is the first of two courses which present the unifying concepts of anatomy and physiology required for understanding the human body as a structural and functional unit. This course emphasizes the mechanisms that underlie the normal functions of cells, tissues, organs, and organ systems. This course includes the study of basic biochemistry, cell biology, histology, and the integumentary, skeletal, muscular, nervous and endocrine systems.

Credits: 4

Prerequisites: None

Course Objectives: Anatomy and Physiology courses serve several disciplines including athletic training, biology, exercise science, nursing, physical and health education, pre-physical therapy, public health, sports and recreation management, and therapeutic recreation management. The curriculum is designed to provide students an introductory and/or advanced knowledge of anatomy and physiology. The courses provide a foundation for those who wish to pursue graduate studies or professional health careers.

Student Learning Objectives:  
After successful completion of this course, students should be able to:

1. Recognize and use anatomical nomenclature.  
2. Describe basic biochemical and cellular processes.  
3. Relate chemical and physical concepts with human biological function.  
4. Identify anatomical features of the integumentary, skeletal, muscular, nervous and endocrine systems.  
5. Explain the mechanisms underlying normal functions of tissues, organs, and organ systems and recognize the interconnectedness of all organ systems.  
6. Apply knowledge of anatomy and physiology to real-world experiences (body movements, senses, normal vs. disease state, etc).  
7. Value the importance of learning about the human body for human health.  
8. Develop study skills and habits (continuous practice, self-testing, etc.) that will be useful in future endeavors.

Required Course Materials:
- **Textbook:** Anatomy and Physiology: The Unity of Form and Function by Kenneth Saladin, 8th edition, McGraw-Hill, 2017. Hardcover, loose leaf or eBook options are all acceptable. You do not need to buy the access card.
- **Lab Manual:** ANP130 Anatomy and Physiology Lab Manual (Second Edition Updated), McGraw-Hill, 2015. ISBN: 9781259818868 (This is a lab manual customized for Carroll students and therefore can only be purchased at the Carroll bookstore. Because this manual serves as “workbook” during lab, each student is expected to purchase a new/unused copy of the manual for use during lab).
Grading:
Grading will be based on strict adherence to the following scale and will be based on performance on the following assessments of student learning: (Note: There are NO extra credit assignments in this course)

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>92-100%</td>
<td>A</td>
<td>Online Lecture Assignments (19)</td>
<td>61</td>
</tr>
<tr>
<td>89-91.9%</td>
<td>A/B</td>
<td>In-class Questions (6)</td>
<td>18</td>
</tr>
<tr>
<td>82-88.9%</td>
<td>B</td>
<td>Lecture Quizzes (2)</td>
<td>40</td>
</tr>
<tr>
<td>78-81.9%</td>
<td>B/C</td>
<td>Unit Exams (3)</td>
<td>300</td>
</tr>
<tr>
<td>70-77.9%</td>
<td>C</td>
<td>Comprehensive Final</td>
<td>200</td>
</tr>
<tr>
<td>60-69.9%</td>
<td>D</td>
<td>Online Lab Assignments (7)</td>
<td>23</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
<td>Lab Quizzes (5)</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lab Practicals (3)</td>
<td>150</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>867</strong></td>
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</tbody>
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Online Assignments
An online assignment for each chapter will be posted to the Canvas site for your ANP130 lecture section. These assignments are designed to promote understanding and encourage review of key terms and concepts prior to quizzes and exams. Assignments will consist of a series of questions that can be completed using lecture notes and the assigned textbook. The online assignments will typically open when we begin the content of a particular chapter and will be due the night before the next quiz or exam covering that content. These lecture assignments are always due at 7pm. After 7pm on the designated due date you will be able to (and should) log back in to review the questions you missed as a way to study for the quiz/exam the following day.

All assignments must be completed by the date and time specified by the instructor to receive credit. No late assignments will be accepted, so log in early and give yourself plenty of time! (i.e. don’t log in at 6:55pm if your assignment is due at 7:00pm!). Your instructor is not responsible for technical difficulties you may have related to accessing MyCarrollu.edu or Canvas*.

*To address technical issues related to MyCarrollU and Canvas call campus Information Technology Services (ITS) at 262-524-7229.

**Important note about Canvas:** From time to time, your instructor may communicate with you or the entire class via the “Inbox” in Canvas. The Inbox can be found in the left hand column of icons when you are in Canvas. You are responsible for checking the Inbox in a timely manner. To make this more convenient you can choose to receive an email message when you have a message in Canvas. To do this, go to Account → Notifications → click the “check” next to everything under Conversations

Lecture Quizzes and Exams
Exams and quizzes will be given as specified on the course schedule or as announced in class. The content of all exams and quizzes will be based on the specific learning objectives provided for each section of the course. Exam #1 will be divided into two parts and given over the course of Unit 1. Exam #2 will be divided into two parts and given over the course of Unit 2. Exam #3 will be given in one part at the end of Unit 3. The final exam will be comprehensive, covering all material presented in the course. No makeup quizzes and exams will be given unless the student makes prior arrangements with the instructor OR a written medical excuse is provided. The nature of makeup quizzes and exams will be at the discretion of the instructor.

In-class Questions
In-class questions will be handed out during the lecture period and will be completed in groups during that class period. All group members are expected to participate in completing the assignment. Lack of
participation may result in failure on the assignment at the discretion of the instructor. If you are absent the day an in-class question is given, you will not be allowed to make-up the question unless you have made prior arrangements with your instructor or a written medical excuse is provided. In-class questions will be assessed based on accuracy and completeness.

Lab Assignments, Quizzes, and Practicals
Lab assignments will be similar to the online lecture assignments described above. These assignments are designed to encourage review of key terms and concepts to prepare for the week’s lab quiz and to encourage learning a small amount of new material to prepare for the upcoming lab. Each lab assignment will consist of a series of questions that can be completed using the assigned textbook and/or lab manual and will be available for completion through the Canvas site for your ANP130 lab section. Lab assignments must be completed before your lab starts on the weeks specified on the lab schedule in the lab syllabus. Lab quizzes and practicals will be given on the dates specified on the laboratory schedule. Lab quizzes will cover only the information from the previous week’s lab. Lab practicals will cover material from several labs as indicated on the lab schedule**.

Detailed information about lab can be found in the Fall 2017 ANP130 Lab Syllabus which will be distributed during your first lab period.

Core Professional Behaviors:
The following behavior is expected of ALL students in the course:

1. Personal Responsibility
   - Student attends all lecture and laboratory sessions, is punctual, and completes assignments and tasks on time. If student misses class, the student is responsible for any content presented. Instructors do NOT provide their lecture notes to students.
   - Students may NOT attend another lecture section without prior approval of your instructor.

2. Honesty and Integrity
   - Student is honest in word and action, is accurate in reporting all information, and maintains a positive learning environment.
   - Student follows the University policies regarding academic integrity (i.e., cheating, removal of an exam, passing exam information to peers, etc.)

3. Respect
   - Student gives full attention to lecturer, does not talk in class, and treats others with dignity.
   - Student must not use technology during class (cell phones, headphones, laptops, iPods, iPads, etc.) except as permitted by the instructor.

4. Teachability/Adaptability
   - Student takes responsibility for own actions and understands consequences of inappropriate actions.
   - Student behavior is appropriate during times of high stress.

5. Communication
   - Student properly formats emails to instructors and with respect (i.e., appropriate salutation, complete sentences, proper grammar, signed with student name and section, etc.). Your instructor reserves the right to not respond to emails that do not meet these criteria.
   - Student refrains from spreading rumors regarding instructors and course assessments.
   - Student follows appropriate procedures for discussion of course issues and concerns:
     - 1st → Student contacts his/her lecture or laboratory instructor.
     - 2nd → Student communicates concerns to the course coordinator (Dr. Hanson)
       (Should the need arise, the coordinator will direct the student to the Department Chair)
6. **Relationship with Peers**
   - Student participates in class and small group discussions.
   - Student demonstrates ability to function within a group (i.e. student respects the opinions of others and can work collaboratively to solve problems).

**Consequences if a student does not meet the above expectations:**
   * At the discretion of the Instructor:
     o Removal from class (e.g. use of an electronic device in class)
     o A deduction in course points
     o Full letter grade deduction for multiple offenses

**Statement on Academic Integrity:**
The Carroll University Academic Integrity Policy is located in your student handbook. A copy of the handbook can be found on the Student Affairs page of the Carroll University web portal. Please familiarize yourself with it. **If a student is found in violation of the Carroll University Academic Integrity Policy, the instructor reserves the right to fail the student on the assignment/exam or even fail the student in the course.** Some examples of violations include:
   a) Looking at another student’s quiz or exam for the answers;
   b) Using a “cheat sheet” that contains information during a quiz or exam;
   c) Using a cell phone during a quiz or exam period (even if the quiz/exam has already been turned in).
   d) Failure to return or removal of an exam from the classroom;
   e) Copying answers to questions directly from lecture notes/textbook/another student;
   f) Discussing the content of a quiz or exam with a student who has not yet taken the quiz or exam.

**Tutoring and Supplemental Instruction:**
**ANP130 tutors** are available for free to assist in mastering course content and developing study strategies for the course. Students can connect with a tutor during weekly drop-in hours at the Library or by completing a tutor request form on the Learning Commons website (see below). **Supplemental Instruction (SI)** is also provided for free for all students who want to improve their understanding of the material taught in this course. SI sessions are led by a student who has already mastered the course material and has been trained to facilitate group sessions where students can meet to compare class notes, review and discuss important concepts, develop strategies for studying, and prepare for exams. Attendance at SI sessions is free and voluntary. Students may attend as many times as they choose. SI sessions begin the second week of class and continue throughout the semester. A session schedule will be announced in class. For additional information about tutoring and SI including session schedule/updates, please visit the Learning Commons website: [http://www.carrollu.edu/learningcommons/](http://www.carrollu.edu/learningcommons/) or click the Bookmarks for Tutoring and SI on your ANP130 Canvas site.

**How to Succeed in ANP130**
This is advice instructors in ANP130 often give students for how they can improve their performance. Not all of these things will work for every person, but some of them will work for you. For each college class you take, you will need to figure out a different way of studying and preparing for class.

1. **Always attend class.**
2. Take good notes. If you miss a class, you are responsible for obtaining them from fellow classmates. (Instructors do not provide their lecture notes to students.)
3. **Re-write and review your notes** from each lecture after every class period. Use the learning objectives and a review of the pertinent pages in the textbook to make a concise study guide in your own words.
4. Don't rely on memorization; strive to **understand the material** (there is a profound difference!). It’s much easier to remember something if you understand what it means and you can explain it to someone else.
5. **ASK QUESTIONS!!** If you don’t understand something, ask questions before/during/after class or attend office hours. The instructors are here to help you.

6. Go to SI sessions and tutoring (both are free!).

7. Form a study group – help each other understand the material better by taking turns explaining important concepts and quizzing each other.

8. *After* you have studied the material and think you know it well, **answer practice questions and complete the learning objectives without using your notes.** Like anything (playing sports, playing a musical instrument, etc.), **you must practice** before a competition/performance/exam. Use the resources available to you to help you determine what you don’t know:

   - Complete the learning objectives **without** using your notes.
   - Complete the practice problems in your textbook (a list is provided for you on every lecture guide). Answers to all questions can either be found in Appendix B at the back of your Saladin textbook (for Figure Legend questions and “Testing Your Recall,” “Building Your Medical Vocabulary,” and “What’s Wrong with These Statements?” questions) or on our Canvas course site (for “Apply What You Know” and “Testing Your Comprehension” questions).
   - Take advantage of the other resources available on the textbook website. These include online practice tests, interactive quizzes, flashcards, and animations that are all free! (A link for this website can be found on our Canvas site).
   - Consider purchasing the access code for the textbook. This code gives you access to the eBook version of the text, videos, animations, practice problems, and LearnSmart (an adaptive learning program designed to help you learn faster, study more efficiently, and retain more knowledge for greater success in this course).
   - Try to answer the questions for each online assignment first without using your notes, then go back and review each question using your notes before you submit. Once the deadline for the assignment has passed, be sure to go back and review all questions to see what you missed so you don’t make the same mistakes on the exam!
   - Make up your own questions and test each other.

   ***Always review any assignments, quizzes, and in-class questions prior to exams***

   **Don’t wait until the night before a quiz or exam to study. There is far too much material in this course to cram in one night!**

**Accommodations for Disabilities:**
Students with documented disabilities who may need accommodations or any student considering obtaining documentation should contact the Walter Young Center and make an appointment with Ms. Martha Bledsoe, Director of Services for Students with Disabilities, no later than the first week of class. Ms. Bledsoe can be reached by calling (262) 524-7335 or via e-mail at mbledsoe@carrollu.edu. The instructor will make the appropriate accommodations once notification has been received.
**Calculating Your Grade:**
You will receive one grade for ANP130, which will be a calculated by adding the points you earn from lecture with the points you earn in lab and dividing by the total possible points in the course. Your lab and lecture grades will be posted and available to you throughout the semester in Canvas. At any point during the semester you can determine your current grade as follows:

\[
\frac{\text{Points earned in lecture + lab}}{\text{Current possible points lecture + lab}} \times 100 = \text{Current %}
\]

Often students wish to know how many points or what grade they have to get on the remaining course assessments in order to achieve a certain grade by the end of the course. You can do that at any point in the semester by following the instructions below:

**How to calculate what you need to achieve your desired grade:**

1. **First calculate point goal:** Grade desired (%) \(\times\) total class points  
   **Example:** If you need a 78%: \(0.78 \times 865 = 675\) pts required for a B/C at the end of the semester

2. **How many more points do you need:** (Points required for desired grade – total points earned so far)  
   **Example:** If you currently have 200 pts, you would need 475 more points to make a B/C (i.e. 675 pts – 200 pts)

3. **Calculate the remaining available points:**  
   865 total points - (Current possible points lecture + lab) = Available points remaining

4. **Points needed ÷ available points remaining**  
   **Example:** If there are 500 pts left: 475 pts / 500 pts = 0.95  
   In this example, an average of 95% would be required for all remaining grades to achieve a B/C.

When deciding whether or not to stay in the course, be honest with yourself! If you have been earning D’s and F’s, it is not likely you will get A’s on everything else through the end of the semester. Discuss your situation with your instructor and your advisor.

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The instructor and Carroll University reserve the right to modify, amend, or change the syllabus (course requirements, grading policy, schedule, etc.) as student progress, the curriculum and/or the program require(s).
### Tentative Course Schedule:

<table>
<thead>
<tr>
<th>Week of</th>
<th>Lecture</th>
<th>Textbook Reference</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 4</td>
<td>Syllabus</td>
<td>none</td>
<td>NO LAB</td>
</tr>
<tr>
<td>Sept. 11</td>
<td>Intro &amp; Body Org Chemistry / Biochemistry Cell Biology</td>
<td>Ch. 1 and Atlas A Ch. 2 Ch. 3</td>
<td>Lab #1: Anatomical Terms and Microscope Use</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>Cell Biology</td>
<td>F Sept. 22: EXAM #1 Part 1 Cell Division</td>
<td>Lab Assn #1 due (before lab); Lab Quiz #1 Lab #2: Movement of Molecules and Cell Division</td>
</tr>
<tr>
<td>Sept. 25</td>
<td>Heredity Histology Integumentary System</td>
<td>Ch. 4 &amp; pp.1041-1043 Ch. 5 Ch. 6</td>
<td>Lab Assn #2 due; Lab Quiz #2 Lab #3: Histology and Integument</td>
</tr>
<tr>
<td>Oct. 2</td>
<td>Integumentary System W Oct. 4: EXAM #1 Part 2 Skeleton</td>
<td>Ch. 6 Cell Div/Hdity, Histo, Integ Ch. 8</td>
<td>Lab Assn #3 due; Lab Quiz #3 Lab #4: Skeleton</td>
</tr>
<tr>
<td>Oct. 9</td>
<td>Skeleton Bone Joints</td>
<td>Ch. 8 Ch. 7 Ch. 9</td>
<td>LAB PRACTICAL #1 (Histology/Integ, Skeleton)</td>
</tr>
<tr>
<td>Oct. 16</td>
<td>Fall Break: October 16-17 Joints F Oct. 20: EXAM #2 Part 1 Muscle</td>
<td>Ch. 9 Skeleton, Bone, Joints Ch. 10</td>
<td>NO LAB</td>
</tr>
<tr>
<td>Oct. 23</td>
<td>Muscle Muscle Physiology</td>
<td>Ch. 10 Ch. 11</td>
<td>Lab Assn #4 due Lab #5: Muscle Anatomy, Part 1</td>
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<tr>
<td>Oct. 30</td>
<td>Muscle Physiology Cell and Muscle Metabolism</td>
<td>Ch. 11 Ch. 11 &amp; pp.68-70, 1003-13</td>
<td>Lab Assn #5 due; Lab Quiz #4 Lab #5: Muscle Anatomy, Part 2 Lab #6: Muscle Physiology</td>
</tr>
<tr>
<td>Nov. 6</td>
<td>M Nov. 6: EXAM #2 Part 2 Neural Physiology</td>
<td>Muscle, Musc Phys, Metab Ch. 12</td>
<td>LAB PRACTICAL #2 (Muscles, Muscle Phys)</td>
</tr>
<tr>
<td>Nov. 13</td>
<td>Neural Physiology Brain and Cranial Nerves</td>
<td>Ch. 12 Ch. 14</td>
<td>Lab Assn #6 due Lab #7: Nervous System</td>
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<tr>
<td>Nov. 20</td>
<td>M Nov. 20: Quiz #1 Spinal Cord and Reflexes T-giving Break: Nov.23-24</td>
<td>Neural Phys, Brain/CNs Ch. 13</td>
<td>NO LAB</td>
</tr>
<tr>
<td>Nov. 27</td>
<td>Autonomic Nervous System Sensory Physiology</td>
<td>Ch. 15 Ch. 16</td>
<td>Lab Assn #7 due; Lab Quiz #5 Lab #8: Special Senses</td>
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<tr>
<td>Dec. 4</td>
<td>Sensory Physiology W Dec. 6: Quiz #2 Endocrine System</td>
<td>Ch. 16 Sp Cord, ANS, Sensory Ch. 17</td>
<td>LAB PRACTICAL #3 (Nervous System, Sp Senses); Lab #9: Endocrine System</td>
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<tr>
<td>Dec. 11</td>
<td>Endocrine System W Dec. 13: EXAM #3</td>
<td>Ch. 17 Neural Phys → Endocrine</td>
<td>NO LAB</td>
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Exam Reviews TBD (Reading Day = Thursday, Dec. 14)

Comprehensive Final Exam Schedule:

- Section A (Nuccio): Tuesday, Dec.19, 8:00am, SH107
- Section B (Hanson): Friday, Dec.15, 8:00am, SH107
- Section C (Hanson): Monday, Dec.18, 11:00am, SH107
- Section D (Rady): Wednesday, Dec.20, 11:00am, SH107
- Section E (Zinkevich): Tuesday, Dec.19, 11:00am, SH107