Course Syllabus

BIOL 221 Human Anatomy and Physiology 1
Spring – 2023

Instructor: Mausumi Bandyopadhyay, Ph.D
Office: RITA 204
Phone: 843-953-7112
Office hours: Tuesdays and Thursdays before and after lab.
E-mail: bandyopadhyaym@cofc.edu.

Text Book:

Required Text: OpenStax: Anatomy and Physiology: https://openstax.org/details/books/anatomyand-physiology. This online textbook is your main source of reference, review and learning (hard copies may be purchased through the publisher).

Other Recommended Resources: Complete Anatomy (app), Mastering A&P (Pearson)

Required Lab Resources: Visible Body: https://visiblebody.com
Histology Guide: http://histologyguide.com

Required Technology: Personal computer with webcam.
Reliable, high-speed internet access; Respondus Lockdown Browser.

Recommended Materials: Sketch pad, colored pencils, or pens

Lecture time and location: Lecture will meet in Room 154 in the Rita Liddy Hollings Science Center (RITA) from 8:00 am to 9:15 am on Tuesday and Thursday each week.

Lab time & location: Laboratory sections will meet in RITA 275 from 6-9pm on Tuesday and Thursday each week.

Course Description: BIOL 221 Human Anatomy & Physiology 1 explores the gross morphology, microscopic anatomy, structure and function of the integumentary, skeletal, nervous, muscular (skeletal, cardiac, and smooth) and endocrine systems of the human body. In addition, the lab presents the histology and gross anatomy of these tissues, organs and organ systems, and provides hands-on experience for learning the topics and principles of physiology presented in the lecture.
This course is intended for pre-allied health, pre-nursing, and physical education majors.

Prerequisites: Biology 111 and 112 with labs.

Course Objectives and Student Learning outcomes:
• Students will attain a basic understanding of the human body as well as structure-function relationships between different parts of the body.
• Students will learn the standard terminology necessary to properly describe the fundamental relationships and orientation of structures in the human body.
• Students will be able to relate physiology to human health and disease.
• Students will demonstrate an understanding of the scientific method and experimental design.
• Students will demonstrate continued development of written, oral, and computational skill sets.

Grading:
Lecture grades
• Lecture exams: 3 exams 100 points each .............................. 300pts
• Final Exam .................................................................................. 200pts
• Quizzes 7 quizzes 15 points each ...........................................100pts (5pts extra) I will give you 9 lecture quizzes and two lowest quiz grades will be dropped  

Total 600 Points from Lecture

Laboratory Grades
• Lab practical I ................................................................................80pts
• Lab practical II .................................................................................80pts
• Lab Final ..........................................................................................80pts
• 7 Quizzes @ 15 pts each ......................................................... 100pts (5 pts extra)
• Visible body Assignments.................................................................60pts

Total 400 Points from Lab

Note: The lecture and laboratory components both count towards the final grade in BIOL 221. They are not assessed as separate units.

• Letter grades are based on the following scale (percentage):
  A  93 - 100
  A-  90 - 92
  B+  87 - 89
  B   83 - 86
  B-  80 - 82
  C+  77 - 79
  C   73 - 76
  C-  70 - 72
  D+  67 - 69
  D   63 - 66
  D-  60 - 62
  F   less than 60
You are encouraged to take advantage of the Center for Student Learning’s academic support services. You will be offered a variety of services, including study strategies, speaking and writing strategies, and course content. The center provides tutoring, supplemental instruction, and workshops. A SI will also be available for lectures.

**Computer Requirement:**
Please make sure that you have ready access to a computer to keep up with course materials. Additionally, this will be crucial in the event that students need to quarantine due to COVID. **A reliable, high-speed internet connection is required.** For online quizzes and exams, a computer with a web cam and Respondus Lockdown Browser is required. Google Chrome appears to be the best browser choice for working with OAKS. Tablets, smartphones, or other mobile devices are not guaranteed to work for all College of Charleston OAKS courses and should not be your primary/only means of accessing your course material.

**Attendance Policy:**
It is expected that you attend all lecture classes and labs. We expect you to inform us every time you miss a class or a test, and in conjunction, we will trust that your explanation is honest and truthful.

In the event that you have missed a quiz or exam due to your illness, medical emergency, or family emergency, you must inform me promptly; I may be able to arrange a make-up for you. If you need to quarantine due to COVID19 or other sickness, please inform me as early as possible, in accordance with the pertinent CofC protocols, so I can determine reasonable accommodations for you to continue in the course. Failure to notify your instructor of your absence in a timely manner may result in no accommodations, i.e., zero points earned on those missed assessments. Failure to complete assessments on the (re)scheduled dates/times will result in zero points earned for that assessment(s), similar to an unexcused absence from lab or a missed quiz or exam in lecture.

**OAKS:**
OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

**Inclement Weather, Pandemic, or Substantial Interruption of Instruction:**
If in-person classes are suspended, faculty will announce to their students a detailed plan for a change in modality to ensure the continuity of learning. All students must have access to a computer equipped with a web camera, microphone, and Internet access. Resources are available to provide students with these essential tools.

**CofC Covid Protocols:** The pertinent CofC Covid-related protocols are updated regularly; the most up-to-date information can be found here. Please adhere to CDC and SC DHEC Guidelines, and current CofC policies, for quarantine and isolation due to COVID-19 close-contact exposure and/or infection.

If you are affected by Covid and/or must quarantine, course materials as well as quizzes/exams are available through OAKS for both the lecture and lab portions of the course. In such cases, you are expected to complete assessments online, in an asynchronous fashion. If any medical complication
arises during COVID infection that prevents your asynchronous participation in lecture or lab activities and assessments, please communicate with me as soon as possible in order to modify accommodations. Failure to complete assessments on the scheduled dates/times will result in zero points earned for that assessment(s), similar to an unexcused absence from lab. Likewise, failure to notify your instructor of your absence and/or medical hardship in a timely manner may result in no accommodation, i.e., zero points earned on those missed assessments.

**Accommodations for Students with Disabilities:**
The College will make reasonable accommodations for individuals with documented disabilities. Students should apply for services at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students can contact the Center for Disability Services/SNAP office at 843.953.1431 or at snap@cofc.edu. Students approved for accommodations are responsible for notifying their instructors as soon as possible. Students can find additional information about accommodations at the [Center for Disability Services/SNAP website](https://www.coastal.edu/center-for-disability-services/).

**Academic Integrity:**
As members of the College of Charleston community, we affirm, embrace and hold ourselves accountable to the core values of integrity, academic excellence, liberal arts education, respect for the individual student, diversity, equity and inclusion, student centeredness, innovation and public mission. Congruent with these core values, the College of Charleston expects that every student and community member has a responsibility to uphold the standards of the honor code, as outlined in the [Student Handbook](https://www.coastal.edu/student-handbook/). In pursuit of academic learning, you are expected to reference the work of other scholars, and complete your own academic work, while utilizing appropriate resources for assistance. Any acts of suspected academic dishonesty will be reported to the Office of the Dean of Students and addressed through the conduct process. Your adherence to these practices and expectations plays a vital role in fostering a campus culture that balances trust and the pursuit of knowledge while producing a strong foundation of academic excellence at the College of Charleston.

Academic dishonesty is not tolerated at the College of Charleston. Academic dishonesty includes but is not limited to cheating on an exam, stealing exam questions, substituting one person for another at an exam, falsifying data, destroying, tampering with a computer program or file, and plagiarizing. Students are responsible for adhering to all policies and procedures in the College of Charleston Student Handbook. Guidelines for this course will follow the College of Charleston Undergraduate Catalog policies for Academic Integrity and the Honor Code, Student Code of Conduct, and Classroom Code of Conduct.

If you are caught cheating, you will be reported to the Dean of Students and the Honor Board, and you will receive a grade of 0 point for the paper, project, or exam in which the dishonesty was observed. Additionally, you may also receive an F for the course and may receive additional disciplinary action from the Dean of Students and Honor Board. Furthermore, students may receive a XXF for the course to indicate course failure as a result of academic dishonesty. This notation will remain for two years, after which the student may petition to have it expunged. However, the F will remain on the student’s record. Individuals may also be subject to disciplinary probation, suspension, or expulsion from College of Charleston by the Honor Board.
<table>
<thead>
<tr>
<th>Week of</th>
<th>Chapter</th>
<th>Subject</th>
<th>Quiz/Exam</th>
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</thead>
<tbody>
<tr>
<td>1/11</td>
<td>1</td>
<td>An introduction to the human body</td>
<td></td>
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<tr>
<td>1/16</td>
<td>3</td>
<td>The cellular level of organization</td>
<td>Quiz 1 (Ch 1) 1/19</td>
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<tr>
<td>1/23</td>
<td>3</td>
<td>The cellular level of organization</td>
<td>Quiz 2 (Ch 3) 1/26</td>
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<tr>
<td>1/30</td>
<td>4</td>
<td>The tissue level of organization</td>
<td>Quiz 3 (Ch 4) 2/2</td>
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<tr>
<td>2/6</td>
<td>5</td>
<td>The integumentary system</td>
<td>Exam 1 (Chs 1,3, and 4) 2/9</td>
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<tr>
<td>2/13</td>
<td>6</td>
<td>The bone tissue and skeletal system</td>
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<tr>
<td>2/20</td>
<td>7, 8</td>
<td>The axial and Appendicular skeleton</td>
<td>Quiz 4 (Ch 5) 2/23</td>
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<tr>
<td>2/27</td>
<td>9, 10</td>
<td>Joints; Muscle tissue</td>
<td>Quiz 5 (Chs 6, 7, &amp; 8) 3/2</td>
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<tr>
<td>3/13</td>
<td>10;12</td>
<td>Muscle tissue; Excitable Cell Physiology</td>
<td>Quiz 6 (Chs 9) 3/16; Exam 2(Chapters 5-9) 3/21</td>
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<tr>
<td>3/20</td>
<td>10;12</td>
<td>Muscle tissue; Excitable Cell Physiology</td>
<td>Quiz 7 (Ch 10, open book quiz) 3/23</td>
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<tr>
<td>3/27</td>
<td>11;17</td>
<td>The muscular system; Endocrine system</td>
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<tr>
<td>4/3</td>
<td>17</td>
<td>Endocrine system</td>
<td>Quiz 8 (Chs11&amp;12) 4/4</td>
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<tr>
<td>4/10</td>
<td>24</td>
<td>Metabolism and nutrition</td>
<td>Exam 3 (Chs 10, 11, 12 and 17) 4/13</td>
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Lab Schedule, Spring, 2023
(Subject to change with notice)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Book Chapters</th>
<th>Quizzes</th>
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</thead>
<tbody>
<tr>
<td>1/11</td>
<td>No Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/16</td>
<td>Cell; Histology</td>
<td>3, 4</td>
<td>Q1 - Cells &amp; epithelia</td>
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<tr>
<td>1/23</td>
<td>Histology</td>
<td>4</td>
<td>Q2 - Connective &amp; muscle tissues</td>
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<tr>
<td>1/30</td>
<td>Integument</td>
<td>5</td>
<td></td>
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<tr>
<td>2/6</td>
<td>Lab Practical 1</td>
<td>6,7</td>
<td>Q3 - Bone microstructure, skull ID</td>
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<td></td>
<td>Bone, Axial Skeleton</td>
<td>7</td>
<td>Q4 - Skull landmarks &amp; vertebrae</td>
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<tr>
<td>2/13</td>
<td>Axial Skeleton</td>
<td>8</td>
<td>Q5 - Appendicular Skeleton</td>
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<tr>
<td>2/20</td>
<td>Appendicular Skeleton</td>
<td>8, 9</td>
<td></td>
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<tr>
<td>2/27</td>
<td>Spring Break (no Labs)</td>
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<td></td>
</tr>
<tr>
<td>3/6</td>
<td>Joints</td>
<td></td>
<td></td>
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<tr>
<td>3/13</td>
<td>Lab Practical 2</td>
<td></td>
<td></td>
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<tr>
<td>3/20</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3/27</td>
<td>Muscle Microstructure; Head and torso Muscles</td>
<td>10,11</td>
<td>Q6 - Muscle microstructure, muscles of head &amp; throat</td>
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<tr>
<td>4/3</td>
<td>Muscles of the Arms and legs; Electromyography Experiment</td>
<td>11</td>
<td>Q7 - Muscles of torso &amp; arms</td>
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<tr>
<td>4/10</td>
<td>Muscles of the Hips &amp; Legs; Reflex latency Experiment; Endocrine</td>
<td>11,17</td>
<td></td>
</tr>
<tr>
<td>4/17</td>
<td>Lab Practical 3</td>
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Important Dates:
- Wednesday, January 18 – Drop/Add
- Friday, March 24 – last day to withdraw with a "W" grade
- Wednesday, May 3 – Lecture Final