BIOLOGY 221 Course Syllabus: Human Anatomy and Physiology I
Spring – 2021
Lecture & Lab: Online synchronous

**Lecture Instructor:** Mausumi Bandyopadhyay, Ph.D
Office: RITA 204
Virtual office hours: We can meet via zoom. Email me to make an appointment
E-mail: bandyopadhyaym@cofc.edu

**Lab Instructor:** Jaap Hillenius, Ph.D.
Office: RITA 293
Virtual office Hours: We can meet via Zoom. Email me to make an appointment
E-mail: hilleniusw@cofc.edu

**Text Book:**
Online Textbook from OpenStax (Free)
Textbook link: [https://openstax.org/details/books/anatomy-and-physiology](https://openstax.org/details/books/anatomy-and-physiology)
The textbook is your main source of reference, review and learning.
Other Recommended Resources: Complete Anatomy (app), Mastering A&P (Pearson)

Lab required license: Visible Body: [https://visiblebody.com](https://visiblebody.com) ($49.99)
Histology Guide: [http://histologyguide.com](http://histologyguide.com) (Free)

**Lecture time and location:** Lecture will be delivered synchronously online during the scheduled lecture period on Tuesdays and Thursdays from 8am to 9:15am each week. Once a week, we will discuss the material provided online. I will provide the recorded PowerPoint on OAKS in advance, please review the material ahead of time so that we can thoroughly discuss the material on Tuesdays. On Thursdays, we will have a brief discussion, and then you will be required to complete and turn in an assignment, whether that is a quiz or exam, during the rest of the class period.

**Lab time & location:** Lab materials are delivered online as well. New labs will be available each week, and quizzes & exams are available online only during your scheduled lab period. We will have a brief zoom meeting each week during your scheduled lab period.
Course Description

BIOL 221, Human Anatomy & Physiology I, 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.
- Demonstrate an understanding of the scientific method and experimental design
- Demonstrate the ability to effectively communicate and work collaboratively together with peers in the laboratory.
- 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............................................................................................................. 220pts
- Quizzes 8 quizzes 10 points each ................................................................. 80pts
  I will give you 10 lecture quizzes and two lowest quiz grades will be dropped
- Total 600 Points from Lecture

Laboratory Grades
- Lab practical I ..................................................................................................100pts
- Lab practical II ..................................................................................................100pts
- Lab Final .........................................................................................................100pts
- 7 Quizzes @ 15 pts ea................................................................. 100pts (5 pts extra)
- 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 requirements:
You will need a computer with reliable, high-speed internet access, sound card, microphone with external speakers or headphones, and a webcam in order to complete all graded activities within this course. Dial-up Internet does not meet minimum requirements. Use of a tablet, smartphone, or other mobile device is not guaranteed to work for all College of Charleston OAKS courses and should not be your primary/only means of accessing your online courses. Several features of OAKS, as well as the external lab resources tend to work better with Google Chrome, and don’t always play nice with browsers such as Safari. Other required software includes Adobe Acrobat Reader for viewing posted course material. Students will need to download the most updated version of Lockdown Browser and Respondus monitor, which requires a webcam, for all lecture exams and quizzes.

Attendance Policy:
Class will be synchronous online. This means that it will be held during the regularly scheduled period that is listed on your schedule. It is expected that you attend all classes. If you become ill, please inform your instructors as soon as possible. In the event that you have missed an assessment due to your illness, we will arrange a make-up for you.

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 approved for accommodations are responsible for notifying me as soon as possible.
Academic Dishonesty:
Academic dishonesty is not tolerated at 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, or stealing exam questions a computer program or file, and plagiarizing. Students are responsible for adhering to all the 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. Students can find the complete Honor Code and all related processes in the Student Handbook at http://www.cofc.edu/generaldocuments/handbook.pdf

If you are caught cheating, you will be reported to the Chair of the Biology Department, 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 through 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.

Course Format and Expected Student Behavior
This semester, BIOL 221 will be a fully online course, with both the lecture and laboratory portions centered on the OAKS platform. Distance Education courses require students to be self-motivated, disciplined, organized and task-driven. Some students are under the mistaken impression that distance education classes are easier than traditional face-to-face classes. In fact, distance education courses are often more challenging than traditional classes. You should be prepared to spend several hours each day on both the lecture and the lab component of the course, very likely including additional time on the weekends. Do not wait until the day before a deadline to begin working on the assignments.

This class will be administered through OAKS, the College of Charleston’s learning management system. **Note that the Lecture and Lab components of this course have separate OAKS pages; you should make sure to log into each page regularly!**

Login to My Charleston to access OAKS. The OAKS icon is the acorn located in the upper right hand corner of the screen. Since we are not meeting face-to-face for class, your instructors expect you to regularly login to OAKS to complete assignments, look for course updates (posted in the News section on the course homepage), complete readings, etc. Please also check your email regularly as we will email updates to the class through OAKS to update you on class events and assignments. **Computer failure or unavailability does not constitute an excuse for incomplete or late assignments.**

If you feel uncomfortable with technology, the College offers a number of resources to help you develop your technological competency, in general, but specifically within the context of this online class. Visit [http://blogs.cofc.edu/studentreadinessforonlinelearning/](http://blogs.cofc.edu/studentreadinessforonlinelearning/) to access
those resources. If you experience technological problems during the class, please contact your instructors immediately at bandyopadhyaym@cofc.edu (lecture) or hilleniusw@cofc.edu (lab).

### BIOL 221 Lecture Schedule. Spring, 2021
(Subject to change with notice)

<table>
<thead>
<tr>
<th>Week of</th>
<th>Chapter</th>
<th>Subject</th>
<th>Quiz/Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11</td>
<td>1</td>
<td>An introduction to the human body</td>
<td></td>
</tr>
<tr>
<td>1/18</td>
<td>3</td>
<td>The cellular level of organization</td>
<td>Quiz 1 1/21 (Ch -1)</td>
</tr>
<tr>
<td>1/25</td>
<td>3</td>
<td>The cellular level of organization</td>
<td>Quiz 2 1/28 (Ch - 3)</td>
</tr>
<tr>
<td>2/1</td>
<td>4</td>
<td>The tissue level of organization</td>
<td>Quiz 3 2/4 (Ch - 4)</td>
</tr>
<tr>
<td>2/8</td>
<td>5</td>
<td>The integumentary system</td>
<td>Quiz 4 2/11 (Ch - 5)</td>
</tr>
<tr>
<td>2/15</td>
<td>6</td>
<td>The bone tissue and skeletal system</td>
<td>Exam 1 (chapters 1,3,4 and 5) 2/18</td>
</tr>
<tr>
<td>2/22</td>
<td>7 &amp; 8</td>
<td>The axial and Appendicular skeleton</td>
<td>Quiz 5 (Ch – 6) 2/25</td>
</tr>
<tr>
<td>3/1</td>
<td>9</td>
<td>Joints</td>
<td>Quiz 6 (Chs 7and 8) 3/4</td>
</tr>
<tr>
<td>3/8</td>
<td>10</td>
<td>Muscle tissue</td>
<td>Quiz 7 (Ch 9) 3/11</td>
</tr>
<tr>
<td>3/15</td>
<td>10</td>
<td>Muscle tissue</td>
<td>Quiz 8 (Ch 10) 3/18</td>
</tr>
<tr>
<td>3/22</td>
<td>11</td>
<td>The muscular system</td>
<td>Exam 2 (Chapters 6-10) 3/25</td>
</tr>
<tr>
<td>3/29</td>
<td>17</td>
<td>Endocrine system</td>
<td>Quiz 9 (Ch 11) 4/1</td>
</tr>
<tr>
<td>4/5</td>
<td>17</td>
<td>Endocrine system</td>
<td>Quiz 10 (Ch 17) 4/8</td>
</tr>
<tr>
<td>4/12</td>
<td>24</td>
<td>Metabolism and nutrition</td>
<td>Exam 3 (Chapters 11, 17 and 24) 4/15</td>
</tr>
</tbody>
</table>
COVID-19 safety guidance:
To reduce the impact of COVID-19 outbreak conditions, all students are required to use face coverings at all times in campus. Stay home if you are sick. Follow the posters reminding you to wear masks, wear gloves when handling models, wash your hands (when you enter the lab and before you leave lab), and disinfect surfaces (when you enter and before you leave lab).

### Biology 221 Lab Schedule

Spring, 2021

(Subject to change with notice)

<table>
<thead>
<tr>
<th>Week of:</th>
<th>Topic</th>
<th>Book Chapters</th>
<th>Quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11</td>
<td>No Lab</td>
<td>3, 4</td>
<td></td>
</tr>
<tr>
<td>1/18</td>
<td>Cell; Histology</td>
<td>4</td>
<td>Q1 - Cells &amp; epithelia</td>
</tr>
<tr>
<td>1/25</td>
<td>Histology</td>
<td>5</td>
<td>Q2 - Connective &amp; muscle tissues</td>
</tr>
<tr>
<td>2/1</td>
<td>Integument</td>
<td>6, 7</td>
<td>Q3 - Bone microstructure, skull ID</td>
</tr>
<tr>
<td>2/8</td>
<td>Exam 1</td>
<td>7</td>
<td>Q4 - Skull landmarks &amp; vertebrae</td>
</tr>
<tr>
<td>2/15</td>
<td>Bone, Axial Skeleton</td>
<td>8</td>
<td>Q5 - Appendicular</td>
</tr>
<tr>
<td>2/22</td>
<td>Axial Skeleton</td>
<td>8, 9</td>
<td>Q6 - Muscle microstructure, muscles of head &amp; throat</td>
</tr>
<tr>
<td>3/1</td>
<td>Appendicular Skeleton (Upper)</td>
<td>10, 11</td>
<td>Q7 - Muscles of torso, shoulder &amp; upper limb</td>
</tr>
<tr>
<td>3/8</td>
<td>Appendicular Skeleton (lower): Joints</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>3/15</td>
<td>Exam 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/22</td>
<td>Muscle Microstructure &amp; Head Muscles</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4/5</td>
<td>Muscles of the Hips &amp; Legs; Endocrine</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>4/12</td>
<td>Exam 3</td>
<td></td>
<td></td>
</tr>
</tbody>
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Important Dates:

- Tuesday, January 19 – Drop/Add
- Monday, March 22 – last day to withdraw with a “W” grade
- Tuesday, April 27 – Lecture Final