



# INSTRUCTIONAL PACKAGE

BIO 211

Anatomy and Physiology II

Effective Term  
Fall 2019

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: 2019-2020

COURSE PREFIX: BIO 211

COURSE TITLE: Biological Sciences li

CONTACT HOURS: 3-3

CREDIT HOURS: 4

### **RATIONALE FOR THE COURSE:**

BIO 211 is the second of a two-course series that provides students with a detailed study in anatomy and physiology and prepares students for Allied Health programs, such as Nursing, Radiology and Dental Hygiene. After completion of this course, students will possess an increased awareness of the various structures and functions of the human body and will have a better understanding of how this relates to future allied health careers. Through guided classroom and laboratory experiences, students will identify body parts and relate organ systems for a comprehensive understanding of body function.

### **COURSE DESCRIPTION:**

This is a continuation of a sequence of courses, including intensive coverage of the body as an integrated whole. All body systems are studied. This course is transferable to public senior institutions as part of the South Carolina Commission on Higher Education Statewide Articulation Agreement.

### **PREREQUISITES/CO-REQUISITES:**

Credit level BIO 210 Minimum Grade of C or Credit level BIO 210 Minimum Grade of TC or Credit level BIO 210 Minimum Grade of TC

**Online/Hybrid** courses require students to complete the DLI Online Student Orientation prior to completing an online course. The DLI Online Student Orientation can be found in WaveNet, under the My Student tab.

### **REQUIRED MATERIALS:**

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

## **ADDITIONAL REQUIREMENTS:**

A Connect access code from McGraw Hill is a required component of this course.

For Hybrid/Online Students Only: Each student will be required to view an orientation PowerPoint presentation during the first week of class. This presentation can be found on the course homepage in D2L under News. After viewing the presentation, all online students must complete the orientation quiz, which can be found under the dropdown assignment menu. A student will not be considered officially enrolled in the course until the presentation has been viewed and the quiz completed with a 100% score. Any submitted work from the student including discussion posts, assignments, etc. will not be given a grade until the presentation has been viewed and the quiz has been submitted. Failure to view the presentation and take the quiz before midnight on the last day to add/drop classes will result in the student being automatically dropped from the course.

## **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.  
WaveNet and D2L email access.

## **STUDENT IDENTIFICATION VERIFICATION**

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

## **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

**NETIQUETTE:** is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

## **ACADEMIC DISHONESTY:**

All forms of academic dishonesty, as outlined in the Student Code in the HGTC catalog, will NOT be tolerated and will result in disciplinary action. Anyone caught cheating or committing plagiarism (Defined in the code as: "The appropriation of any other person's work and the unacknowledged incorporation of that work in one's own work offered for credit") will be given a grade of a zero for that assignment and reported to the Senior VP of Academic Affairs, in accordance with the student handbook. A second offense will result in the student being withdrawn from the course with a "WF" and charges being filed with the Chief Student Services Officer.

## **Part II: Student Learning Outcomes**

### **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

## CHAPTER 13: ENDOCRINE SYSTEM

Distinguishing between endocrine and exocrine glands.

Listing important functions of hormones and classifying hormones based on chemical composition.

Explaining how steroid and nonsteroid hormones affect their target cells

Discussing how negative feedback mechanisms regulate hormone secretion.

Explaining how the nervous system controls hormone secretion.

Naming the locations of the major endocrine glands, listing the hormones that they secrete and identifying functions of these hormones.

Discussing the general stress response.

## CHAPTER 14: BLOOD

Distinguishing among the formed elements of blood and the liquid portion of blood.

Discussing the origin of blood cells.

Explaining the significance of red blood cell counts and how they are used to diagnose disease.

Discussing the life cycle of a red blood cell and control of its production.

Distinguishing among the five types of white blood cells, and listing the function(s) of each type.

Discussing blood platelets and their functions.

Discussing the functions of each of the major components of plasma.

Defining hemostasis and explaining the mechanisms that help to achieve it.

Explaining blood typing and how it is used to avoid adverse reactions following blood transfusions.

Discussing how blood reactions may occur between fetal and maternal tissues.

## CHAPTER 15: CARDIOVASCULAR SYSTEM

Explaining the roles of the heart and blood vessels in circulating the blood.

Identifying the location of the heart within the body.

Identifying the various coverings of the heart and the layers that compose the wall of the heart.

Identifying the major parts of the heart and discussing the function of each part.

Outlining the pathway of the blood through the heart and the vessels of coronary circulation.

Discussing the cardiac cycle and explaining how heart sounds are produced.

Labeling the parts of a normal ECG pattern and discussing the significance of this pattern.

Discussing the auto-rhythmic nature of the cardiac conduction system and its major components.

Comparing the structures and functions of the major types of blood vessels.

Discussing how substances are exchanged between blood in capillaries and the tissue fluid surrounding body cells.

Explaining how blood pressure is produced and controlled.

Explaining the mechanisms that aid in returning venous blood to the heart.

Comparing the pulmonary and systemic circuits of the cardiovascular system.

Identifying the major arteries and veins.

## CHAPTER 16: LYMPHATIC SYSTEM AND IMMUNITY

Listing the functions of the lymphatic system.

Identifying the parts of the major lymphatic pathways.

Discussing how tissue fluid and lymph form, and explaining the function of lymph.

Discussing major functions of a lymph node and identifying the locations of the major chains of lymph nodes.

Discussing the locations and functions of the thymus and spleen.

Distinguishing between innate (nonspecific) and adaptive (specific) defenses.

Listing innate body defense mechanisms, and discussing the action of each mechanism.

Explaining how two major types of lymphocytes are formed and activated and how they function in immune mechanisms.

Discussing the antigen presenting cell and its role in activating the immune response.

Discussing the structure and actions of the five types of antibodies.

Distinguishing between primary and secondary immune responses.

Distinguishing between active and passive immunity.

Explaining how allergic reactions, tissue rejection reactions, and autoimmunity arise from immune mechanisms.

## CHAPTER 17: DIGESTIVE SYSTEM

Explaining which processes are carried out by the digestive system.

Identifying the structures of the digestive system and explaining their functions.

Outlining the structure of the wall of the alimentary canal.

Explaining how the contents of the alimentary canal are mixed and moved.

Discussing the general effects of innervation of the alimentary canal by the sympathetic and parasympathetic divisions of the autonomic nervous system.

Identifying the function of each enzyme secreted by digestive organs and glands.

Discussing how digestive secretions are regulated.

Explaining the mechanisms of swallowing, vomiting, and defecating.

Explaining how the products of digestion are absorbed.

## CHAPTER 19: RESPIRATORY SYSTEM

Identifying the general functions of the respiratory system.

Identifying the locations and functions of the organs of the respiratory system.

Explaining how inspiration and expiration are accomplished.

Identifying each of the respiratory air volumes and capacities.

Demonstrating how to calculate alveolar ventilation rate.

Discussing nonrespiratory air movements.

Discussing the control of breathing.

Discussing the structure and function of the respiratory membrane.

Explaining the importance of partial pressure in diffusion of gases.

Explaining how the blood transports oxygen and carbon dioxide.  
Discussing gas exchange in the pulmonary and systemic circuits.

## CHAPTER 20: URINARY SYSTEM

Identifying the organs of the urinary system and listing their general functions.

Identifying the structures and functions of the kidneys.

Outlining the pathway of blood flow through the major vessels within a kidney.

Identifying the parts and functions of a nephron.

Explaining how glomerular filtrate is produced and summarizing its composition.

Explaining how various factors affect the rate of glomerular filtration and identifying ways that this rate is regulated.

Explaining tubular reabsorption and secretion, and their roles in urine formation.

Identifying the changes in the osmotic concentration of the glomerular filtrate as it passes through the renal tubule.

Summarizing the characteristics of a countercurrent mechanism, and explaining its role in concentrating the urine.

Explaining how the final composition of urine contributes to homeostasis.

Discussing the structures of the ureters, urinary bladder, and urethra.

Explaining how micturition occurs, and how it is controlled.

## CHAPTER 22: REPRODUCTIVE SYSTEMS

Outlining the process of meiosis.

Identifying the structures and functions of the male reproductive system.

Outlining the process of spermatogenesis.

Discussing semen production and exit from the body.

Explaining how the tissues of the penis produce an erection.

Explaining how hormones control the activities of the male reproductive organs and the development of male secondary sex characteristics.

Identifying the structures and functions of the female reproductive system.

Outlining the process of oogenesis.

Explaining how hormones control the activities of the female reproductive organs and the development of female secondary sex characteristics.

Summarizing the major events during a female reproductive cycle.

Discussing the structure and function of the mammary glands.

Discussing methods of birth control, including the relative effectiveness of each method.

Listing the general symptoms of diseases associated with sexually transmitted infections.

## Lab Specific Outcomes

Learning outcomes for the lab portion of this course are included in the Lab Student Handouts, a document that will be provided to you by your lab Instructor. They are detailed for each lab topic covered in the course and include items like identification of structures on lab models, diagrams, devices, and dissected materials. Learning outcomes include utilization of

microscopes to view and identify cells and tissues. Accurate spelling is a learning outcome and graded component of this course.

\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.

### Program Learning Outcomes

This course fulfills the following General Education Outcomes through the Cardiovascular Project. Upon completion of this course, students will be able to:

- 1 Communicate effectively
- 1 Think critically
- 1 Self and professional development

***\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

## Part III: Grading and Assessment

### EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\*

Students’ performance will be assessed and the weight associated with the various measures/artifacts are listed below.

#### EVALUATION\*

Lecture	75%
Lab	25%
	<hr/>
	100%

***\*Students, for the specific number and type of evaluations, please refer to the Instructor’s Course Information Sheet.***

### GRADING SYSTEM:

Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be

reduced accordingly.

## **Part IV: Attendance**

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

**For online and hybrid courses**, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

### **Lecture Attendance:**

For a 15 week course (fall and spring), the allowed number of absences for a MW or TR class is as follows: 4 absences are allowed for lecture, regardless of reason. For a lecture class that meets once a week, the allowed number of absences is two (2). When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF. Remember, an absence is an absence, no matter if it is excused or not!

### **Lab Attendance:**

Students are allowed one (1) lab absence for a lab that meets weekly. When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF.

### **Online/Hybrid Attendance:**

Students enrolled in distance learning courses (hybrid and online) are required to maintain contact with the instructor on a regular basis to be counted as "in attendance" for the course. All distance learning students must participate weekly in an Attendance activity in order to demonstrate course participation. Students showing no activity in the course for two weeks (these weeks do not need to be consecutive) will be withdrawn due to lack of attendance.

### **Lab Attendance for Hybrid Courses:**

Students in hybrid classes in which labs only meet 5 or 6 times during the semester, must attend all lab sessions for its entirety. Failure to attend one lab will result in immediate withdrawal. Students in hybrid classes where labs meet every week, you are allowed one lab absence. When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF.



## Part V: Student Resources

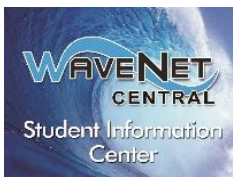


### The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

1. **Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
2. **On-line student success and academic support resources**.

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455 or go to the [Online Resource Center](#) to access on-demand resources any time.



### Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC**: General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

### Student Testing:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNOW, our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#)

section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

## **Disability Services:**

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Beth Havens, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

## **Statement of Equal Opportunity/Non-Discrimination Statement**

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

Inquiries regarding the non-discrimination policies: Students and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs, Dr. Melissa Batten, VP Student Affairs, Title IX Coordinator, Building 1100, Room 107A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, [Melissa.Batten@hgtc.edu](mailto:Melissa.Batten@hgtc.edu). Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources, Jacquelyne Snyder, VP Human Resources, Section 504, Title II, and Title IX Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, [Jacquelyne.Snyder@hgtc.edu](mailto:Jacquelyne.Snyder@hgtc.edu).

## **Title IX Requirements**

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

<p><b>Inquiries regarding the non-discrimination policies:</b></p>	
<p>Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.</p>	<p>Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.</p>
<p><b>Dr. Melissa Batten, VP Student Affairs</b>  <i>Title IX Coordinator</i></p> <p>Building 1100, Room 107A, Conway  Campus  PO Box 261966, Conway, SC 29528-6066  843-349-5228  <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a></p>	<p><b>Jacquelyne Snyder, VP Human Resources</b>  <i>Section 504, Title II, and Title IX Coordinator</i></p> <p>Building 200, Room 212A, Conway Campus  PO Box 261966, Conway, SC 29528-6066  843-349-5212  <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a></p>