



Fall 2017
Whitaker Hall Room 243
M/W 4:30 – 7:15pm

PCB3703C – Human Physiology
Department of Biological Sciences
CRN80997

Professor: Caroline Clark Rivera, MA, MS, PhD

Office: Library 461A
Office Hours: TBD

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Course Description: Students will study the organs and organ systems of the human body as they operate individually and how they integrate together. Special attention is devoted to the body systems, including cardiovascular, respiratory, neuromuscular, endocrine, digestive, renal and reproductive physiology. The curriculum is inquiry based and fully integrated with activities, which emphasize active learning strategies and collaboration.

Required Text(s):

Sherwood, L. (2016). *Human Physiology: From Cells to Systems*, 9th ed.

- ⇒ You may purchase an older edition.
- ⇒ I may assign additional readings and/or web pages to supplement the text, and will post to CANVAS.

The Cengage website has great activities and resources for you, please use them. The following link will take you to the Cengage course I have created:

- ⇒ Course Link URL: <https://studentdashboard.cengagebrain.com/#/course-confirmation/MTPPSVJPHZKK/initial-course-confirmation>

Course Link Instructions: [Print instructions](#)

Course Key: **MTPP-SVJP-HZKK**

Student Learning Outcomes (LO): PHYSIOLOGY is defined as “the study of the function of and the processes underlying the functions of organ systems.” In this course students will be introduced to both the structure and function of the various organ systems in humans. At the completion of the course, students should be able to:

- 1) Understand the molecular events associated with cell physiology.
- 2) Explain plasma membrane functions and electrophysiology of the excitable tissues.
- 3) Understand how electrical signals are transmitted through the nerves and between different organ systems.
- 4) Describe the functions of specific regions within the central nervous system.
- 5) Identify the structure and functions of the afferent and efferent divisions of the peripheral nervous system.
- 6) Describe excitation contraction coupling as the key to muscle physiology. Describe muscle mechanics and metabolism.
- 7) Understand the electromechanical physiology of the cardiac muscle.

- 8) Describe the circulatory system functions in maintaining blood pressure and fluid balance. Describe the functions of blood components.
- 9) Understand the mechanisms and cell types associated with innate and adaptive immunity.
- 10) Understand O₂ / CO₂ transport and exchange, respiratory movements and lung control of blood pH.
- 11) Describe the different structures and cells associated with the steps of urine formation and the renal control of fluid and electrolyte balance.
- 12) Describe hormonal regulation of fluid and electrolyte balance.
- 13) Explain the components and functions of the digestive system.
- 14) Identify the regulatory mechanisms and centers for energy balance and temperature regulation.
- 15) Describe the main endocrine glands and the hormonal contribution to homeostasis.
- 16) Explain the reproductive system and the hormonal regulation of gonadal and extragonadal reproductive functions.

Preparing for Class: Please *read the chapters* before coming to the lecture. This will significantly improve your understanding of the material. It is not important to understand the details and the complex paradigms prior to the class. But by familiarizing yourself with the terminology and the chapter concept will enable you to focus at class on understanding rather than trying to make sense of something you are completely unfamiliar with.

Course Communication: We will be using CANVAS extensively in this course, as a means to provide course related information to you and as a way for you to engage certain assignments. Email using the email address at the top of the syllabus from within CANVAS (do not send "comments" to me through CANVAS, I do not see these). Additionally, I will correspond with you ONLY through your FGCU student email account so it is very important for you to have your student email activated. If you need assistance with this, please review the FGCU instructions for activating, forwarding, and getting help with your email at <http://eagle.fgcu.edu/ts.html>.

Evaluation & Grading: There are a total of 1500 points available during the course and are distributed in the following manner:

1. Module Exams* - Four exams each worth 150 points (4 x 150 = 600pts) | 40%
2. Chapter Quizzes - 19 chapter quizzes each worth 20 points (19 x 20 = 380pts) | 25%
3. Laboratory Activities - 9 activities worth varying points total = 370pts | 25%
4. Comprehensive Final Exam - One comprehensive final exam worth 150 points | 10%

See the course schedule for the due dates of the assignments.

* There are no make-up exams. Missing a scheduled exam will result in zero credit. If you do have a legitimate excuse, you must notify me prior to missing the exam.

Course Policies:

Lecture Exams, Lab Practical Exams, & Assignments:

- ⇒ Exams begin at the start of class and penalties will be assessed to students that do not arrive on time for the exam. If a student arrives 10 minutes late they will automatically lose 10 points from their final score, 20 minutes late will result in losing 20 points from their final score, and 30 minutes late will result in losing 50% of points earned on the exam.
- ⇒ Once you begin an exam you cannot leave the room until you hand in your exam.
- ⇒ All exam materials remain the property of the course instructors and may not be taken from the exam room or instructor offices under any circumstances.
- ⇒ Exams will only be given on the date scheduled.
- ⇒ No electronic devices are to be on or used during exams.
- ⇒ All incidents of suspected cheating will be referred to appropriate university authorities.
- ⇒ Tardiness, leaving class early or failure to come to class minimizes your opportunity to learn. If you are not in class at the time assignments are given or begin, you forfeit the opportunity to take part in that assignment or laboratory. You are still responsible for all notes, assignments, announcements and schedule changes.
- ⇒ All assignments are due on the dates specified. Work may be turned in earlier than the due date, but will not be accepted after the due date.
- ⇒ Due to time and scheduling constraints, no make-up laboratories can be offered.
- ⇒ Unusual circumstances resulting in tardiness or class absence will be evaluated on a case-by-case basis. The circumstances must be communicated as soon as possible and not at the end of the semester.
- ⇒ If you experience a catastrophic event in your life that precludes you from completing course requirements, you may elect to petition for an incomplete grade provided that you are passing the course.
- ⇒ All safety guidelines set forth in student laboratory activities will be strictly adhered to and most importantly there will be no food or drink during lab activities.
- ⇒ *Faculty adhere to the FGCU policies provided in the Florida Gulf Coast University Student Guidebook and include but are not limited to Code of Conduct, academic integrity including dishonesty/cheating, plagiarism, authorized absence, and absences due to other causes. Violations may result in a failing grade on the assignment, in the course, or dismissal from the class or from the University, depending on the severity of the incident.*
- ⇒ *The faculty reserves the right to modify the syllabus as needed to accommodate situations that may arise during the semester.*
- ⇒ You must participate in the laboratory exercises for your lab quiz grade to be counted. Students that take a quiz but did not participate in the laboratory activity will receive a zero regardless of the grade that was achieved on the quiz for non-completion of the lab.
- ⇒ If a student removes any exam materials from the classroom they will receive a zero on the exam.
- ⇒ The instructor(s) reserve(s) the right to administer a written or oral make up exam for any test not taken at the times specified on the syllabus. This only applies to students that have been excused from the scheduled exam by their instructor. Instructor reserves the right to grade a select portion of the daily assignment rather than the entire assignment. Instructor reserves the right to modify the lecture schedule when necessary.
- ⇒ Syllabus Statement for Center for Academic Achievement
- ⇒ The Center for Academic Achievement (CAA) provides academic support services to all FGCU students. Students can take advantage of our free peer tutoring and Supplemental Instruction

sessions for lower-level math and science courses, as well as workshops to facilitate the development of skills necessary for college success. If you would like to participate in any of our programs, learn about tutoring services, or meet with an Academic Retention Coordinator, please visit the CAA in Library 103 or call us at (239) 590-7906. The CAA website is www.fgcu.edu/caa.

University Policies:

Academic Behavior Standards and Academic Dishonesty: All students are expected to demonstrate honesty in their academic pursuits. The university policies regarding issues of honesty can be found in the FGCU Student Guidebook under the Student Code of Conduct and Policies and Procedures sections. All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student Guidebook is available online at <http://studentservices.fgcu.edu/judicialaffairs/new.html>.

Disability Accommodations Services: Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is located in the Wellness Building. The phone number is 239-590-7956 or Video Phone (VP) 239-243-9453. In addition to classroom and campus accommodations, individuals with disabilities are encouraged to create their personal emergency evacuation plan and FGCU is committed to providing information on emergency notification procedures. You can find information on the emergency exits and Areas of Rescue Assistance for each building, as well as other emergency preparedness materials on the Environmental Health and Safety and University Police Department websites. If you will need assistance in the event of an emergency due to a disability, please contact Adaptive Services for available services and information.

Student Observance of Religious Holidays: All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

University Resources:

General Education: Information on General Education program requirements is available online at http://www.fgcu.edu/General_Education/index.html.

CANVAS Learning Management System and Demonstration Site: Information on CANVAS is available online at <http://elearning.fgcu.edu/frames.aspx> and <http://elearning.fgcu.edu/section/default.asp?id=xxxDemoonlinecoursestudent>.

Testing:

- [Testing Services](#)
- [Final Exam Schedule](#)

Assistance and Tutoring:

- [Adaptive Services](#)
- [Center for Academic Achievement](#)
- [Technology Tutorials](#)
- [The Writing Center](#)
- [Tutoring - Math and Science](#)

Absence Documentation Form:

If you have a valid excuse for missing class, please print out and fill out two copies of this document. This document should be turned into the instructor before the date of absence. Each case will be evaluated by the instructor and excused absences will be granted on a case by case basis.

Name

Date(s) you will not be
in attendance

Assignment(s) missed
during absence

Reason for
absence

- ✓ Please attach documentation supporting reason for absence to this form
- ✓ Submit two copies of this form to instructor

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