

Physiology & Disease (AS.360.101.61): Renal, Digestive, Immune, Endocrinology, and Reproduction

Discover Hopkins. 2 weeks, starting 10 July 2017. Weekdays 9:30-16:30, Room TBA. 0 Credits. Eligible for 1 Johns Hopkins credit.

Course Description: An understanding of physiology is an invaluable part of any budding physician's or scientist's repertoire. This course introduces classical physiology in the human body, and how it functions in both health and disease. Part II of Physiology and Disease is the last of a two-part course, and though students are NOT required to take Part I, it should be a consideration! Ultimately, knowledge of basic physiology should impact future research and serve as a foundation for all future scientific and biomedical endeavors.

There are no prerequisites for the course, but a background in biology is helpful. Students should be generally enthusiastic and uninhibited.

Instructor:

Chris Ciarleglio, Ph.D.

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Text (optional): *Human Physiology: From Cells to Systems*, 7th to 9th Edition, by Lauralee Sherwood (ISBN: 978-1285866932). Additional materials may include primary literature, reviews and internet sources, as well as much discussion.

Grading: Students must successfully complete (or contribute to, where appropriate) all assignments and exams (if applicable). Class participation is essential—student participation keeps it interesting.

Office Hours: Students are encouraged to contact Dr. Ciar with any questions/ comments/ concerns/ criticisms. He can be reached on Google Hangouts as **c.ciarleglio**, as well as by email or phone.

Regarding Our Learning Management Software: **Canvas** is an amazing online course tool created and distributed by Instructure, Inc., which was founded in 2008 with the purpose of disrupting the Learning Management System (LMS) market by setting a new, open standard for education technology. Canvas, like this course, is a work-in-progress: if you find any problems or bugs in either, please let your instructor know as soon as possible. Explore and enjoy!

Video Resources: All classes are filmed and posted on YouTube for current and past students of the course only. Video of student presentations helps them become more reflective presenters and communicators. All video and course materials are the property of their creators.

Modules: In addition to this Syllabus, be sure to check out the **Modules** page to see/understand the layout of the course.

SYLLABUS (*BREVIS*)

*Note: Many afternoon activities are determined *de novo* each year according to the students' interests.

- M 24 July 2017.* **Overview, Survey, Debate**
*Instructor and student introductions. Who are you, and what's your expertise? Canvas overview! What is Physiology? **What is life?***
Homeostasis and Levels of Organization
Pre-class Reading: *Human Physiology Chapter 1*
Afternoon Activity: **TBD**
- T 25 July 2017.* **Cellular Physiology Overview**
Pre-class Reading: *Human Physiology Chapter 2-4*
Afternoon Activity: **TBD**
- W 26 July 2017.* **Nervous System Overview**
Pre-class Reading: *Human Physiology Chapter 4-7*
Afternoon Activity: **TBD**
- R 27 July 2017.* **Immunology & Disease**
Pre-class Reading: *Human Physiology Chapter 12*
Afternoon Activity: **TBD**
- F 28 July 2017.* **Renal Physiology**
Pre-class Reading: *Human Physiology Chapter 14 (& 15 if you're interested)*
Afternoon Activity: **TBD**
- WE 29-30 July 2017* **Midterm Exam**
- M 31 July 2017.* **Digestive Physiology**
Pre-class Reading: *Human Physiology Chapter 16*
Afternoon Activity: **TBD**
- T 1 August 2017.* **Classical Homeostasis & Endocrinology (Thursday 2nd Session!)**
Pre-class Reading: *Human Physiology Chapter 17-19*
Afternoon Activity: **TBD**
- W 2 August 2017.* **Sex and Reproduction**
Pre-class Reading: *Human Physiology Chapter 20*

Afternoon Activity: **TBD**

R 3 August 2017.

Student Presentations

Afternoon Activity: **TBD**

F 4 August 2017

Catch-up, Summary, Review & Evaluation

Afternoon Activity: **TBD**