Human Physiology

**HHD 1033**

Fall 2024

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Course Description

This course will provide a basic appreciation of the fundamental functions of the human body and serve as a foundation to future study within the movement and health sciences. In order comprehend physiological principles, we will promote conceptual understanding rather than rote memorization of facts. Health and exercise applications are included throughout the book to heighten interest and deepen understanding of physiological concepts and help students relate the material to their individual career goals.

"***Lack of activity destroys the good condition of every human being, while movement and methodical physical exercise saves and preserves it" – Plato***

Course Objectives

1. Define, identify, and explain functions of the human body systems including the nervous, cardiovascular, respiratory, renal, and metabolic systems
2. Understand concepts of homeostasis and control mechanisms and to study the functions of body systems- with emphasis on clinical relevance.
3. Understand how these separate systems interact to yield integrated physiological responses to homeostatic challenges such as exercise, fasting, or environmental changes

Class Times: Tuesday, Thursday 11:00- 12:15 pm/ 1:00-2:15 pm

Location: 129 Trees Hall

Office hours: TBA

Course Materials: 16th Edition – Fundamentals of Human Physiology by Stuart Ira Fox; McGraw Hill. Boston 2024; Connect Online Learning

You will be required to have materials from McGraw-Hill Education which include the textbook content and Connect (which includes , your adaptive online study tool, and SmartBook, your adaptive eBook). This course is participating in the “Inclusive Access” model where the cost of these resources has been included in your tuition statement at a lower rate to save you money and ensure that you have what you need to be successful in this course. You will not need to purchase anything out of pocket unless you choose to purchase a print copy of the book in addition to the digital copy. Contact Mr. John Burns ) [jburns@bc.pitt.edu](mailto:jburns@bc.pitt.edu)at the Pitt bookstore to order a loose leaf copy ($25).

Learning Approach

* **This course is a modified “flip” format. This will work ONLY if**  **you prepare outside of class**.
* The aim for Human Physiology is to be highly interactive. This class is about **PREPARATION**, **TEAMWORK, and ENGAGEMENT**.. There will be some lecture from Dr. Nagle. As part of a group, you will work through class content and concepts and present them to class as a team.
* BETTER preparation outside of class→BETTER Group Contribution→BETTER Class Contribution→BETTER scores on exams!!

“**Great things come from working hard and perseverance. No**

**excuses**”

―*Kobe Bryant*

Hints for Success

* This course requires the student to master and recall a large amount of information in 14 weeks. Come to class prepared
* If you start to struggle, reach out to Dr. Nagle ASAP. Help is on the way!
* Help create a supportive and encouraging class environment. Mistakes are expected!
* Make a study schedule. Cramming doesn’t work in this class
* Regard the study of physiology as an opportunity to learn the fundamental function of the entity that you live and take care of daily, your body. This information will translate to your professional career!

Course Requirements and Grading

LearnSmart (Connect online) – 15 assignments, 2-6 points each (80 pts)\*

\*\*^A Learn Smart online Homework assignment corresponding to weekly lecture will be due every Sunday evening by 11:59 pm. (Due dates posted on Connect and Canvas in Assignments folder)

Laboratory Assignments – 5 assignments, 5 points each (25 pts)

Online simulated interactive laboratories will be used to help demonstrate course concepts. Virtual lab assignments are due prior to exams on a Sunday evening (See Canvas Assignments folder)

Exams - 4 exams, 50 points each\*\*(200 pts)

In person or online multiple choice question exams. See course outline

Individual Contribution (20 pts)

You will be awarded 20 pts for your ability to contribute to group work , answer and ask questions, and contribute to class discussions. Scoring \*\*Rubric posted in Canvas Syllabus folder.

Current Event Share (5 pts)(Optional Bonus)

Earn up to 5 additional points presenting a 5 min current event related to exam material. Goal -To use physiology learning for an article critique on current event topic. Sign up on Discussion board (limited spots/directions in Assignment folder)

**Total points possible: 325\***

**\*Points in your Canvas gradebook are raw totaled points and will not include Individual Contribution or Current Event score till end of term.**

*\*\*All will be “closed-book” evaluations. The questions will be primarily objective. Test content will be condensed from the materials presented in class and in the related text chapters. Final grading will also be dependent on your test scores, ability to be at class on time, participate (ask questions), seek extra help if needed, and show an upward trend in test grades.* ***There is no “curve” in this class****.*

*Learn Smart assignments and virtual labs will not be accepted after the assigned due dates.*

*You are expected to be present and on time on exam days to facilitate the testing process and lecture. Failure to be present on exam day without contacting Dr. Nagle prior will result in a* ***zero*** *exam grade. You will be excused from a scheduled exam only under extreme extenuating circumstances—you must contact your professor* ***prior*** *to the exam to do this. Make-up exams would then be scheduled at our discretion, and with a different test format.*

* + *Exams can be made-up under the following conditions for absences that are considered excusable:* 
    - *Medical Emergency or Sickness – Must have a note from medical doctor documenting medical visit (must correspond with and list dates of absence).*
    - *Mandatory Academic Event – Must have a note from advisor/professor documenting attendance (must correspond with and list dates of absence).*
    - *Personal or Family Emergency – Must communicate with Dr. Nagle prior to missing class so it can be determined if this is a reasonable reason for missing and alternative arrangements can be made immediately.*

Class Etiquette

* Phones should be turned off for class
* Use of cell phones, tablets, and laptops is not permitted during exams. – There are no exceptions and you will be asked to leave class
* The instructor reserves the right to alter the grade assignment algorithm in a systematic manner.
* Compliance with Department of Health and Human Development

Academic Integrity policies/procedure-Located on Canvas in Syllabus and Course Information folder

* Class attendance is expected!. Please be on time! If you miss a class, it’s your responsibility, not the professor’s, to obtain the material which was discussed in class. If you miss a class, please get the notes from a classmate. A significant portion of the class material may not be written in lecture slides.

Disability Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodation for this course.

### Academic Integrity

Students in this course will be expected to comply with the [University of Pittsburgh’s Policy on Academic Integrity](https://www.provost.pitt.edu/info/ai1.html). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

To learn more about Academic Integrity, visit the [Academic Integrity Guide](http://pitt.libguides.com/academicintegrity/) for an overview of the topic. For hands- on practice, complete the [Academic Integrity Modules](http://pitt.libguides.com/academicintegrity/plagiarism).

#### No Use of Generative AI Permitted

Intellectual integrity is vital to an academic community and for my fair evaluation of your work. All work completed and/or submitted for this course must be your own, completed in accordance with the University’s Guidelines on Academic Integrity. You may not engage in unauthorized collaboration or make use of ChatGPT or any other generative AI applications at any time.

Diversity and Inclusion

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University’s Title IX policy.

Health, Wellness and Safety

It is extremely important that you abide by the [public health regulations](https://www.alleghenycounty.us/Health-Department/Resources/COVID-19/COVID-19.aspx) , the University of Pittsburgh’s [health standards and guidelines](https://www.policy.pitt.edu/university-policies-and-procedures/covid-19-standards-and-guidelines), and [Pitt’s Health Rules](https://www.coronavirus.pitt.edu/healthy-community/pitts-health-rules). These rules have been developed to protect the health and safety of all of us.

If you or anyone you know experiences overwhelming academic stress, persistent difficult feelings and/or challenging life events, you are strongly encouraged to seek support. In addition to reaching out to friends and loved ones, consider connecting with a faculty member you trust for assistance connecting to helpful resources. The [University Counseling Center](http://www.counseling.pitt.edu/) is also here for you. You can call 412-648-7930 at any time to connect with a clinician.

**Schedule for HHD 1033**

\*Subject to change\*

University of Pittsburgh, Fall Term 2024

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| **8/27** | Course Housekeeping  Biology Review, BIOENERGETICS  (Ch 4.3) | **8/29** | METABOLISM (Ch 5) |
| **9/3** | CELL SIGNALS (Ch 6) | **9/5** | NERVOUS SYSTEM (Ch7) |
| **9/10** | CENTRAL NERVOUS SYSTEM (Ch 8) | **9/12** | CENTRAL NERVOUS SYSTEM (Ch 8) |
| **9/17** | CENTRAL NERVOUS SYSTEM (Ch 8) | **9/19** | **EXAM 1** |
| **9/24** | AUTONOMIC NERVOUS SYSTEM (Ch 9) | **9/26** | AUTONOMIC NERVOUS SYSTEM (Ch 9) |
| **10/1** | AUTONOMIC NERVOUS SYSTEM (Ch 9) | **10/3** | ENDOCRINE SYSTEM (Ch11) |
| **10/8** | ENDOCRINE SYSTEM (Ch11) | **10/10** | ENDOCRINE SYSTEM (Ch11)  SENSORY SYSTEM (Ch10) |
| **10/15** | Fall Break- NO CLASS | **10/17** | ENDOCRINE SYSTEM (Ch11)  SENSORY SYSTEM (Ch10) |
| **10/22** | **EXAM 2** | **10/24** | MUSCLE PHYSIOLOGY (Ch12) |
| **10/29** | MUSCLE PHYSIOLOGY (Ch12)  CARDIOVASCULAR (Ch 13/14) | **10/31** | HALLOWEEN TRIVIA  CARDIOVASCULAR (Ch 13/14) |
| **11/5** | CARDIOVASCULAR (Ch 13/14) | **11/7** | CARDIOVASCULAR (Ch 13/14) |
| **11/12** | CARDIOVASCULAR (Ch 13/14) | **11/14** | **EXAM** |
| **11/19** | RESPIRATORY SYSTEM (Ch 16) | **11/21** | RESPIRATORY SYSTEM (Ch 16) |
| **11/26** | No Class Happy Thanksgiving | **11/28** | No Class Happy Thanksgiving |
| **12/3** | RESPIRATORY SYSTEM (Ch 16)  Kidney Physiology (Ch 17) | **12/5** | KIDNEY PHYSIOLOGY (CH 17) |
| **12/10** | KIDNEY PHYSIOLOGY (CH 17)  review | **12/12** | **EXAM 4** |

\*\***^A Learn Smart online Homework assignment corresponding to weekly lecture will be due every Sunday evening by 11:59 pm. Virtual lab assignments are due prior to exams on a Sunday evening also (See Canvas Assignments folder)**