



UNIVERSITY of HAWAII®
WINDWARD
COMMUNITY COLLEGE

PHYL 142: Human Anatomy & Physiology

3 Credits

Online, Asynchronous

INSTRUCTOR: Ken Longenecker, PhD
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TELEPHONE: N/A (contact me via email)
EFFECTIVE DATE: Spring, 2024

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

PHYL 142 is the second semester of a comprehensive two-semester course which provides a thorough introduction to the structure and function of the human body. PHYL 142 covers the gross anatomy, histology, and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, reproduction systems as well as basic concepts of inheritance and development. Students will be expected to learn details of anatomy and physiology as well as applying those details in the broader context of whole-body function and homeostasis (3 hours lecture)

Activities Required at Scheduled Times Other than Class Times

Successful completion of this course will generally require six to nine hours of independent study each week. For more information, see p. 4 of this syllabus.

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

1. Identify required anatomical structures of the covered systems
2. Identify required physiological functions of the covered systems
3. Describe metabolic processes of covered systems and relate them to everyday activities such as eating, sleeping, and exercise
4. Explain the concepts of positive/negative feedback and homeostasis and relate them to physiological processes covered in the course

COURSE TASKS

1. Visit the course website a minimum of three times a week
2. Check UH email daily
3. View lectures and read chapters as assigned
4. Complete weekly online quizzes and practice exams
5. Complete three class examinations at a pre-approved UH testing center (ID required).

ASSESSMENT TASKS AND GRADING

EXAMINATIONS (600 points total-200 points for each exam). The student will take **THREE** exams (non-cumulative) to demonstrate knowledge and understanding of information presented in the lectures, lecture outlines, text readings, and study guide activities. **Exams must be taken at a pre-approved UH Testing Center by the published deadline (4 pm because of testing center hours).** **You must make an appointment to take an exam.** You will be required to show a school- or government-issued ID at before beginning of the exam. You will also need to know your Laulima username and password. Exams will be timed (typically one minute/question) and may consist of multiple-choice, short answer, or essay questions. You will be allowed to take the exam one time only. Make-up exams will not be given for any reason.

Students will be asked to choose their testing center during the first week of class.

QUIZZES (120 points- 10 points for each quiz). The student will take 14 online quizzes which will cover material from the lecture and reading. **Quizzes may be taken from home, but they MUST be taken by the published deadline (11:00 PM each Friday).** The Friday deadline includes holidays. You can preserve your holidays by taking the quizzes early. Each quiz can be taken up to FIVE times; only the highest score will be saved. Please note that quizzes cannot be made up for any reason, including network problems or personal emergencies. The lowest TWO quiz grades will be dropped at the end of the semester. As with exams, quizzes will be timed (typically 30 s to 1 min per question, depending on difficulty). Quizzes may be taken open-book but be warned that if you do not study beforehand, you will not be able to complete the quiz before the deadline lapses.

EXAM REVIEWS (30 points). Students will complete a practice exam prior to each unit exam. The practice exam will consist of exam questions from previous semesters and quiz bank questions. Students are allowed to take the exam review two times and only the highest grade will be saved.

METHOD OF GRADING

| | |
|--------------|-------------------|
| Exams | 600 points |
| Quizzes | 120 points |
| Exam Reviews | 30 points |
| TOTAL | 750 points |

Please note that I do not offer extra credit.

GRADING SCALE

| Percentage Points | Grade |
|-------------------|-------|
| 90-100 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | D |
| 0- 59 | F |

Please not that “N” grades are not given for this course.

Grades may be curved at the instructor’s discretion; however, the student should use the above grading scale to evaluate their performance throughout the class. Exams may be taken any time until the deadline, therefore **no make-up exams will be given for any reason.** I highly recommend taking exams early.

No retests will be given for any reason.

COURSE CONTENT

Concepts or Topics

The student will describe and integrate basic biological principles and define basic biological terms presented in lecture, required texts, and other instructional materials. These principles include the following areas:

- Anatomy of the endocrine systems and physiology of hormone actions
- Functions and components of blood
- Anatomy of the heart and regulation of heart rate and cardiac output
- Anatomy of blood vessels and regulation of blood pressure and blood flow
- Mechanisms of general and specific resistance
- Anatomy and physiology of the respiratory system
- Digestive anatomy, processes, nutrition, and metabolism
- Anatomy of the urinary system, renal physiology, and fluid & electrolyte homeostasis
- Anatomy and physiology of male and female reproductive systems
- Physiology of pregnancy and fetal development
- Genetics and inheritance

LEARNING RESOURCES

Textbooks: Namba et al. (2023). Anatomy & physiology. University of Hawaii, Honolulu: Creative Commons. A link to this free, online text is provided on the course Laulima site.

Lecture Outlines: PowerPoint outlines for course lectures are available on the course website.

Laulima: Your instructor has created a [laulima website](#) to accompany this course. This website contains links to lectures, lecture outlines, review materials, quizzes, and exams. All students enrolled in the class are automatically granted access to the course website. You will need a UH email account to access the Laulima site.

Adobe Reader: You will need to download a recent copy of adobe reader to view the lecture files. A copy is available at: <http://get.adobe.com/reader/>

ADDITIONAL INFORMATION

STUDENT RESPONSIBILITIES

You are expected to view all course lectures, read assigned material, complete weekly quizzes, and complete exams as outlined in the course schedule. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced via email and/or the course website. It is your responsibility to be informed of these changes. It is also your responsibility to be informed about deadlines critical to making registration changes (e.g., last day for making an official withdrawal).

HOW TO SUCCEED IN THIS CLASS

Although you will be given lecture outlines, you will not succeed in this class without viewing lectures and taking detailed notes on the corresponding material in the textbook. Merely reading the chapter will not suffice. Science courses at WCC generally require a minimum of two to three hours of independent study time for each hour in class. It is your responsibility to allocate the appropriate amount of time needed for study and be realistic about all personal and professional commitments that may infringe on your study time.

As part of your studies, you will need to understand a veritable *mountain* of medical and anatomical terms, most of which will probably be foreign to you. In this course, most important vocabulary words appear in **boldface** throughout your textbook. One way to learn these vocabulary words is to make flash cards to quiz yourself. Answering the matching and fill-in-the-blank questions located in the back of each text chapter can also be a helpful way to learn new terms. Be warned: Merely knowing the *definitions* of vocabulary words will be of little use if you do not know how the anatomy of the structures they represent.

In addition to vocabulary, you will be expected to have a detailed understanding of the mechanisms regulating human body systems. In many cases, these systems are regulated by negative feedback loops. **Knowledge of negative feedback mechanisms is absolutely crucial to understanding how the human body maintains homeostasis.** One way to do this is to make a diagram of how the feedback loop works. Most negative feedback loops have 3 parts. 1) a **receptor**, which monitors the condition (in this case, blood calcium levels) 2) a **control center** which “decides” when the condition has exceeded optimal set point values 3) and an **effector** which modifies the values of a controlled condition as directed by the control center. Once you have created your diagram (and labeled the above parts) you should ask yourself what types of **stimuli** may cause the controlled condition to drop below or exceed the setpoint and then trace the steps necessary to bring the controlled condition back into homeostasis (back to the setpoint).

My #1 Suggestion for success in this class: Take all five possible attempts for each quiz. The quizzes are designed to help you prepare for exams and only your highest score is used to calculate your final grade.

My #2 Suggestion for success in this class: Take weekly quizzes EARLY, even if you have not had a chance to properly study for the quiz. This will prevent you from receiving a “zero” score should you forget to take the quiz by the deadline. It will also help you to better direct your studying so you can do better on future attempts for the same quiz. Remember, only your **HIGHEST** score is saved for each quiz. You will only be able to take each exam once. This

means you should study diligently before going to the testing center to take the exam. NO RETESTS WILL BE GIVEN!

MySUCCESS: Students may be referred for extra help or advising through MySuccess. Students can also explore resources at MySuccess.Hawaii.edu and windward.hawaii.edu/MySuccess

DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, royinouy@hawaii.edu, or you may stop by Hale Kāko‘o 106 for more information.

SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Jojo Miller, Confidential Advocate
Phone: (808) 348-0663
Email: advocate@hawaii.edu
Office: Hale Kāko‘o 110

Desrae Kahale, Mental Health Counselor & Confidential Resource
Phone: (808) 235-7393
Email: dkahale3@hawaii.edu
Office: Hale Kāko‘o 101

Karla K. Silva-Park, Title IX Coordinator
Phone: (808) 235-7468
Email: karlas@hawaii.edu
Office: Hale ‘Ākoakoa 220

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University’s Title IX resources and the University’s Policy, Interim EP 1.204, go to manoa.hawaii.edu/titleix/

ACADEMIC INTEGRITY

Students involved in academic dishonesty will receive an "F" grade for the course. Academic dishonesty includes cheating and plagiarism. All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs. See the most recent course catalog for a description of the College's policies and procedures concerning academic dishonesty.

ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alaka'i 121
- Phone: (808) 235-7422

PHYSIOLOGY 142

Schedule of Topics

Note that Exam 2 is due on a Thursday because of the Good Friday holiday

| Week | Date | Topics | Text | Assignment Due FRIDAY* |
|------|-----------|--------------------------------|---|--|
| 1 | 1/8-1/12 | Course Intro/Endocrine System | CH 17 | 1/12: Chapter 17 Quiz |
| 2 | 1/15-1/19 | Blood | CH 18 | 1/19: Chapter 18 Quiz |
| 3 | 1/22-1/26 | The Heart | CH 19 | 1/26: Chapter 19 Quiz |
| 4 | 1/29-2/2 | Blood Vessels and Hemodynamics | CH 20 | 2/2: Chapter 20 Quiz |
| 5 | 2/5-2/9 | Exam #1 Review | | 2/9: Exam 1 Review |
| 6 | 2/12-2/16 | Lymphatic System Immunity | CH 22 | 2/16: EXAM 1 (CH 17-20) |
| 7 | 2/19-2/23 | Respiratory System | CH 21 | 2/23: Chapter 22A Quiz Chapter 22B Quiz |
| 8 | 2/26-3/1 | Digestive System | CH 23 | 3/1: Chapter 21 Quiz |
| 9 | 3/4 -3/8 | Nutrition and Metabolism | CH 24 | 3/8: Chapter 23 Quiz |
| 10 | 3/11-3/15 | Exam #2 Review | | 3/17: Chapter 24 Quiz Exam 2 Review |
| | 3/18-3/22 | SPRING BREAK | | |
| 11 | 3/25-3/29 | Urinary System | CH 25 | 3/28 (*THURSDAY): EXAM 2 (CH 21-24) |
| 12 | 4/1-4/5 | Fluid and Electrolyte Balance | CH 26 | 4/5: Chapter 25 Quiz |
| 13 | 4/8-4/12 | Reproductive System | CH 27 | 4/12: Chapter 26 Quiz |
| 14 | 4/15-4/19 | Pregnancy and Development | CH 28 excluding Patterns of Inheritance | 4/19: Chapter 27 Quiz |
| 15 | 4/22-4/26 | Genetics and Heredity | CH 28 Patterns of Inheritance | 4/26: Chapter 28A Quiz |
| 16 | 4/29-5/3 | Exam #3 Review | | 5/3: Chapter 28B Quiz Exam #3 Review |
| 17 | 5/6-5/10 | None | | 5/10: EXAM 3 (CH 25-28) |

Important Dates:

- Last day to drop without “W” grade: January 31
- Last day to Withdraw (“W” entered on transcript): March 22
- **Final (3rd) Exam: Due by 4 PM Friday May 10th**