



UNIVERSITY of HAWAII®
WINDWARD
COMMUNITY COLLEGE

PHYL 142L: Human Anatomy & Physiology Lab II

1 Credit

T 11:30AM-2:15PM Imiloa 103 (CRN 64132)

INSTRUCTOR: Ross Langston, PhD
OFFICE: Imiloa 115
OFFICE HOURS: TBA
TELEPHONE: 808-429-6218 (cell) **EMAIL:** langston@hawaii.edu
EFFECTIVE DATE: Spring, 2023

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 142L is the laboratory course of PHYL 142 (Human Anatomy and Physiology II) and it provides a thorough introduction to the structure and function of the human body. PHYL 142L covers the gross anatomy, histology, and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, reproductive systems as well as basic concepts of inheritance and development. Students will be expected to learn details of anatomy and physiology through models, dissections, and physiological experimentations. Students will also apply those details in the broader context of whole body function and homeostasis. (3 hours laboratory)

Activities Required at Scheduled Times Other than Class Times:

None

STUDENT LEARNING OUTCOMES

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

1. Identify anatomical structures at the level of the cell, tissue, organ, and system through the use of models, computer images, observation, and dissections
2. Apply the scientific method to study, measure, analyze, and understand the physiological systems of the human body

COURSE TASKS

1. Attend class at scheduled times.
2. Participate in lab activities and submit assignments, as scheduled.
3. Complete required lab reports.
4. Complete weekly quizzes.
5. Complete two in-class practicums.

ASSESSMENT TASKS AND GRADING

QUIZZES (120 points total- 10 points for each quiz). Students will take a short quiz prior to or during each. Each quiz will be based on the material covered in the previous lab. The lowest two quiz grades will be dropped. Students who fail to take the quiz at the assigned time will receive a zero on the quiz. **(NO EXCEPTIONS!)**.

LAB REPORTS (50 points). Formal lab reports are required for activities indicated by an '*'. The reports will be graded for completeness, accuracy, clarity, and effort. The format for the lab reports will be discussed during the first laboratory session. Students are required to complete ONE lab report. Reports are due 1-2 weeks after the lab activity Lab reports must be uploaded to the course assignments page by 11:00 AM on the due date. I will subtract 10 points a day for late reports.

LAB PRACTICUMS (200 points total-100 points for each practicum). The student will take two lab practicums (non-cumulative) to demonstrate knowledge and understanding of information presented in lab activities. These practicums will cover anatomy (e.g., organ identification and histology) and physiology of major systems covered during lab and will be similar in content and scope to the lab quizzes.

ATTENDANCE & CLASS PARTICIPATION (130 points): Attendance and class participation are mandatory. Each student is allowed **one** absence without penalty. Each absence above one will result in a deduction of points. Students with more than two absences should strongly consider dropping the course. Participation in lab activities may be evaluated by worksheets or in-class assessments. Because most laboratory sessions require special equipment and preparation, make-up labs will NOT be given. Finally, students who arrive late, leave early, do not properly clean up their lab area, do not wear required attire (including face covering), or fail to turn in class data at the end of each lab will be counted as absent.

The table below reflects the *approximate* distribution of points for the class. Note that the total number of points in your class may be smaller or greater, depending on the number of assignments and quizzes. Rest assured that the calculation of final grades will always follow the percentage cutoffs below. The assignment of points will be according to the following:

Quizzes (12 x 10)	120 points
Lab Reports (1 x 50)	50 points
Practicums (2 x 100)	200 points
<u>Class Participation</u>	<u>130 points</u>
TOTAL	500 points

GRADING SCALE

90-100	A
80-89	B
70-79	C
60-69	D
<60	F

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. If you miss an examination because of an illness or legitimate documentable emergency, you must contact the instructor **within 24 hours** to arrange a time to take a make-up exam. The instructor may request that the student present evidence of the illness or emergency that caused the student to miss the exam. If the student misses an exam for any other reason, the student may be prohibited from taking a make-up exam, thus failing to receive any points for the missed exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. **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

Lab Manual: Smith, M. and R. Langston. 2019. Anatomy and Physiology II Laboratory Manual (Open Access). Windward Community College

Histology Manual: Smith, M. and R. Langston. 2019. Histology and Microscopy for Human Anatomy and Physiology (Open Access). Windward Community College

Textbooks: OpenStax College. (2013). Anatomy & physiology. Houston, TX: OpenStax CNX. Retrieved from <http://cnx.org/content/col11496/latest/>

Laulima: <https://laulima.hawaii.edu/portal> Contains links to lecture outlines, lab activities, and review materials. Students will need a UH email account and access to a computer to access the Laulima site.

ADDITIONAL INFORMATION

LAB ATTIRE, CONDUCT, AND HYGIENE

Because biology labs often involve working with chemicals or hazardous materials, students **MUST** wear close-toed shoes. In addition, some lab activities will require students to wear gloves and safety glasses (provided by the college). Several labs will involve body measurements (e.g., body fat), light exercise, or the placement of electrodes or sensors on the body. Students should therefore wear loose-fitting clothing that allows for a free range of movement (i.e. no tight-fitting pants or jeans). Students failing to dress appropriately for lab will not be permitted to participate in laboratory exercises and will be considered absent. Students engaged in conduct that threatens themselves or others in the lab will be refused access to the lab for the remainder of the semester and receive an “F” grade for the course.

LAB SUBJECT POLICY

Most labs involve non-invasive clinical measurements (e.g., skin-fold measurement, reflex tests, etc). **ALL** students are required to participate in these activities. If you have a health condition or other reason why you should not participate you should inform the instructor. Experiments involving invasive or semi-invasive procedures (e.g., finger sticks and urinalysis) will be performed on volunteers only.

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. Jodie Asato can be reached at (808) 235-7472, jodiaka@hawaii.edu, or you may stop by Hale Kāko‘o 105 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:

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

LAB SAFETY RULES

1. Be familiar with lab safety procedures and take appropriate precautions at all times to insure the safety of all lab students.
2. Follow all instructions carefully, especially when hazardous materials are being used.
3. Know the locations of important safety equipment: eyewash, safety shower, fire extinguisher, and first aid kit.
4. Report all injuries to the instructor immediately.
5. Dress appropriately for lab. Closed-toe shoes are required for ALL labs. Safety glasses and gloves are required for labs utilizing chemicals, bodily fluids, or hot-plates.
6. Report any hazardous conditions (e.g. chemical spills or broken glass) to the instructor immediately.
7. NO FOOD ALLOWED IN LAB
8. Chemicals used in lab may be poisonous, corrosive, or flammable. No chemicals, even those known to be safe, should be ingested or touched with un-gloved hands unless you are specifically directed to do so by your instructor.
9. Know how to safely operate all lab equipment and tools (e.g., microscopes, scalpels, and hematology supplies). Safe usage will be demonstrated by your instructor.
10. Clean all lab supplies and return them to their proper location before leaving lab.
11. Treat all organisms, living or dead, with care and respect. Use gloves when handling dissected specimens.
12. Place broken glass, sharps, and dissected specimens in the appropriate receptacles (NOT IN THE TRASH!)
13. Unless otherwise instructed, chemical wastes should NOT be disposed of down the drain.
14. Human tissues and bodily fluids (e.g., saliva and blood) must be disposed of in appropriate biohazard containers (NOT IN THE TRASH!).
15. Wash your hands immediately following each lab to reduce the possibility of contamination or infection.

COURSE SCHEDULE
PHYL 142L SPRING, 2023
 T 11:30AM-2:15PM (CRN 64132)

* Please note: this schedule is subject to change. Any changes will be announced in-class or on the course website.

Week	Date	Topics	Lab Manual	Histo Manual	Assignments Due
1	T 1/10	Course Introduction			Syllabus
2	T 1/17	Endocrine System	CH 1	CH 9	
3	T 1/24	Blood and Hematology*	CH2	CH 10	Q1: Endocrine System
4	T 1/31	Anatomy of the Heart	CH 3	CH 11-12	Q2: Blood
5	T 2/7	Blood Vessels	CH 3	CH 11-12	Q3: Heart
6	T 2/14	Electrocardiography*	CH 4		Q4: Blood Vessels Hematology Lab Report Due
7	T 2/21	CV Physiology*	CH 5		Q5: Electrocardiography
8	T 2/28	Respiratory Anatomy	CH 7	CH 14	Q6: CV Physiology EKG Lab Report Due
9	T 3/7	Lab Practicum #1	None		Q7: Practice Practicum
10	T 3/14	SPRING BREAK			
11	T 3/21	Respiratory Physiology*	CH 8		CV Physiology Report Due
12	T 3/28	Digestive Anatomy	CH 9	CH 15	Q8: Respiratory Physiology
13	T 4/4	Urinary Anatomy	CH 11	CH 16	Q9: Digestive Anatomy
14	T 4/11	Urinalysis*	CH 12		Q10: Urinary Anatomy Resp Physiology Report Due
15	T 4/18	Reproduction	CH 13	CH 17	Q11: Urinalysis
16	T 4/25	Development	CH 14		Q12: Reproduction Q13: Development Urinalysis Report Due
15	T 5/2	Lab Practicum #2			Q14: Practice Practicum II

Important Dates:

- Last day for 100% Refund: January 17th
- Last day for 50% Refund: February 1st
- Last day to drop without "W" grade: February 1st
- Last day to Withdraw ("W" entered on transcript): March 24th