



Land Acknowledgement

We respectfully acknowledge the Syilx Okanagan Nation and their peoples, in whose traditional, ancestral, unceded territory UBC Okanagan is situated.

HES 111: Human Anatomy & Physiology II

Faculty: Faculty of Health and Social Development

Department: Health and Exercise Sciences

Instructor: Dr Gina Whitaker

Duration: Term 2, Winter 2022-2023

Delivery Modality: In-Person

Course Location: ASC 140 (lectures) and in UCH 010 (labs)

Course Days: Tues/Thurs lectures (lab days are Mon-Fri, depending on what time slot you registered for)

Class Hours: 5:00pm – 6:20pm

Office hours: Weekly office hours will be held in person (ART 159). Time will be posted on canvas at the beginning of the semester. Students can also make an appointment to meet with me (prof. Gina).

Course Description

An introduction to human physiology from the cellular to the systemic level. This course will examine the neuroendocrine system, cardiovascular system, respiratory system, gastrointestinal system, renal function, immune function and reproduction.

Course Format

We will meet together for class twice per week on Tuesdays and Thursdays 5-6:20pm in ASC 140. These sessions will also be recorded and posted on canvas after class. Weekly labs (8 in total) will begin in week 2. You must attend the lab day and timeslot that you registered for.

Course Overview, Content and Objectives

This course is the second of a two-semester series which will introduce the student to foundational concepts in human anatomy and physiology. HES 111 topics include: endocrine, cardiovascular, respiratory, gastrointestinal, urinary & reproductive systems; Function and integration of the endocrine, nervous, cardiovascular, respiratory and renal systems. In keeping with competency-based learning, concepts will be consistently applied to exercise and the field of health.

The content presented in this course is based on the following objectives:

1. Develop foundational knowledge of the anatomical and functional characteristics of cells, organs and organ systems relevant to human function and movement.

2. Understand the link between structure and function, and the application to integration and regulation of physiological function

3. Apply foundational knowledge of human anatomy and physiology to movement, exercise and the field of health

Learning Outcomes

Upon successful completion of this course, students will be able to...

1.	Define and apply anatomical terms to human body systems
2.	Explain foundational concepts in human physiology relating to: Homeostasis; Molecular and Cellular Biology; Energy Metabolism
3.	Identify and explain the structural and basic functional anatomy of the endocrine, cardiovascular, respiratory, gastrointestinal, urinary and reproductive systems
4.	Explain the basic function, regulation and integration of the endocrine, cardiovascular, respiratory, gastrointestinal, urinary and reproductive systems

Assessments of Learning

1	Weekly Canvas assignments	10%
2	Lab activities & quizzes	30%
3	Midterm 1 - Feb 8 th	10%
4	Midterm 2 – Mar 19 th	15%
5	Class participation (i-clicker)	5%
6	Final Exam (cumulative)	30%

Learning Activities

Weekly learning content, readings and activities will be posted the Friday before in canvas modules

- The weekly modules on canvas will direct students to various optional activities that will support the learning of material covered during lectures.
- Students are encouraged to attend all classes and participation will be assessed using i-clickers. In order to receive full participation marks, you must participate in 75% of the lectures via i-clicker. (Information on how to download the iclicker app is posted on canvas. This app is free for UBC students).
- Classes notes will be posted prior to class start and lectures recordings posted to canvas after class.
- Weekly review quizzes (open book) will be taken on canvas and based on the previous week's class material. These will always be due on Monday night.
- Lab activities will be completed during lab using LT software (online software can be accessed in lab and from home). There will be 8 lab activities to complete over the semester. Attending labs in person will allow the student to access anatomy models and collect real-time data, as well as work on their labs with other students and receive in person TA support. The first lab will take place in week 2.
- Midterms (closed book) will be taken in person during class time on the posted dates. Midterm 2 is non-cumulative (only tested on material covered in class in week 6-10).
- Final exam (closed book) will be cumulative (based on all course material covered over the semester) and must be taken in person during exam period (date and time is TBA).

Course Schedule & Readings

Please note: this schedule is subject to change and exact detailed content will be posted in the weekly modules on canvas. Midterm exam dates are final (not subject to change).

	Topics, labs & exams	Required Readings
Week 1 Jan 8 – 12	Intro to the course, Endocrine System	Ch 16.1 – 16.4
Week 2 Jan 15 – 19	Ch 17 – Cardiovascular System I Lab 1 – Intro, CV I anatomy	Ch 17.1-17.2
Week 3 Jan 22 – 26	Ch 17 – Cardiovascular System II Lab 2 – CV II Heart Sounds & ECG	Ch 17.3 – 17.5
Week 4 Jan 29 – Feb 2	Ch 18 – Cardiovascular System III Lab 3 – CV III Pulse & BP Measurements, Cardiac Cycle	Ch 18.1 – 18.5
Week 5 Feb 5 – 9	Practice & Review Session Midterm 1 Feb 8th (based on week 1 – 4 material) (no labs)	
Week 6 Feb 12 – 16	Ch 19& 20 – Blood & Lymphatic Ch 21 – Respiratory System Lab 4 – Blood Typing Lab	Ch 21.1 – 21.2
Feb 19 - 23	READING BREAK	
Week 7 Feb 26 – Mar 1	Ch 21 – Respiratory System Lab 5 – Respiratory I – Lung Anatomy, Breathing & Pulse Rate	Ch 21.3 – 21.7
Week 8 Mar 4 – 8	Ch 22 – GI System Lab 6 – Respiratory II – Lung Capacities & Flow Rates	Ch 22.1 – 22.6
Week 9 Mar 11 - 15	Ch 22 – GI System Practice & Review Session Lab 7 – Respiratory III – O2-Hb Binding curves	Ch 22.7 – 22.8
Week 10 Mar 18 – 22	Midterm 2 March 19 (based on week 6 – 9 Ch 23 – Metabolism I Lab 8 (Friday only) – Metabolism - Glucose Absorption	Ch 23.1 – 23.6
Week 11 Mar 25 – 29	Ch 24 – Urinary System Lab 8 (Mon-Thurs only) – Metabolism – Glucose Absorption	Ch 24.1 – 24.4
Week 12 April 1 - 5	Ch 25 – Fluid, Electrolyte & Acid-Base Homeostasis No labs (online lt lab 9)	Ch 24.5 – 24.10 Ch 25.1 – 25.5
Week 13 April 8 - 11	Ch 26 – Reproductive System Semester Review (no labs)	Ch 26 (selected sections)
April 15- 26	Final Exam period (HES 111 date is TBA and exam will be cumulative)	

Late policy

Lab and other class assignments are due at the specified due date and time indicated on Canvas.

There are certain extenuating circumstances that will allow of extension of a quiz or lab activity. These are: illness, family emergency, travel for team sports. Please note that the instructor will not make accommodations for work schedule or other extracurricular activities. Please reach out to your TA prior to the upcoming lab activity or quiz due date and the TA will work with Dr Whitaker to determine eligibility for extension on a case-by-case basis.

Missed exam policy

If you need to miss a midterm for an extenuating circumstance, **you must submit a self-declaration form PRIOR TO THE MIDTERM START**, to the School of Health & Exercise Sciences and once approved, together you and your instructor will arrange for an alternate exam sitting. Supporting documentation, such as a doctor's note may be requested. Please see the HES student policies (posted on the canvas course front page) for more detail and link to the self-declaration form. If you need to miss the final exam for an extenuating circumstance (medical or family emergencies only), you must apply for an out-of-time exam through the department, and provide valid documentation of the reason for the missed final exam

Missed Activity Policy:

Lab attendance is mandatory. There are certain extenuating circumstances that will allow for a missed lab. These are: illness, family emergency, travel for team sports. Please note that the instructor will not make accommodations for work schedule or other extracurricular activities. Please reach out to your TA BEFORE YOUR LAB TIME to let them know that you are missing a lab and why. They will determine whether your absence is excused and will consult with Dr Whitaker if needed. If you miss more than 1 lab for an excused reason, you will be put in contact with Dr Whitaker to set up a meeting to discuss a plan for making up these labs. **You are not permitted to miss more than 2 labs in total** over the semester for excused reasons.

Both the lowest weekly canvas review quiz and lowest lab activity mark will be dropped at the end of semester in order to accommodate for life circumstances that might cause you to miss one. **Please note that extensions will not be provided under any circumstances on weekly canvas review quizzes.**

Passing criteria

As per the HES Policies, you must pass both the lab and lecture components of a course to receive a passing grade in that course. If you happen to fail one of these components, yet your total grade is still above 50%, then your final grade will be 49%.

In addition, in this course you must obtain a passing grade on the combination of exams (midterm 1, 2 and final exam) in order to pass the course.

Learning Materials

- Course textbook package: Amerman, EC (2019) Human Anatomy & Physiology 2nd Edition with Mastering A&P and Active Learning Workbook. Pearson. This is to be purchased through the UBC Okanagan bookstore and can be purchased as a hard copy or e-text package.
- Lab Software: ADI Instruments LT lab software. (to be purchased through the UBC-Okanagan bookstore). Please note that the Lt software access that you activated last semester should last you until the end of this semester. You will require access until April 8th.

Other Course Policies

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. **For example, incidences of plagiarism or cheating usually result in a failing grade or mark of zero on the assignment or in the course.** Careful records are kept to monitor and prevent recidivism.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at: <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,54,111,0>

Final Examinations

Please ensure that you are available in person for the entirety final exam period. The final exam dates will be posted by mid-February. You can find the [Senate-approved term and examination dates here](#). Except in the case of examination clashes and hardships (three or more formal examinations scheduled within a 27-hour period) or unforeseen events, students will be permitted to apply for out-of-time final examinations only if they are representing the University, the province, or the country in a competition or performance; serving in the Canadian military; observing a religious rite; working to support themselves or their family; or caring for a family member. Unforeseen events include (but may not be limited to) the following: ill health or other personal challenges that arise during a term and changes in the requirements of an ongoing job.

Further information on Academic Concession can be found under Policies and Regulation in the Okanagan Academic Calendar <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,48,0,0>

Grading Practices

Faculties, departments, and schools reserve the right to scale grades in order to maintain equity among sections and conformity to University, faculty, department, or school norms. Students should therefore note that an unofficial grade given by an instructor might be changed by the faculty, department, or school. Grades are not official until they appear on a student's academic record.

<http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,41,90,1014>

Student Services Resources:

UBC Okanagan Disability Resource Centre

The DRC facilitates disability-related accommodations and programming initiatives to remove barriers for students with disabilities and ongoing medical conditions. If you require academic accommodations to achieve the objectives of a course please contact the DRC at:

UNC 215 250.807.8053

email: drc.questions@ubc.ca

Web: www.students.ok.ubc.ca/drc

UBC Okanagan Equity and Inclusion Office

Through leadership, vision, and collaborative action, the Equity & Inclusion Office (EIO) develops action strategies in support of efforts to embed equity and inclusion in the daily operations across the campus. The EIO provides education and training from cultivating respectful, inclusive spaces and communities to understanding unconscious/implicit bias and its operation within in campus environments. UBC Policy 3 prohibits discrimination and harassment on the basis of BC's Human Rights Code. If you require assistance related to an issue of equity, educational programs, discrimination or harassment please contact the EIO.

UNC 325H 250.807.9291

email: equity.ubco@ubc.ca

Web: www.equity.ok.ubc.ca

Student Wellness

At UBC Okanagan health services to students are provided by Student Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Student Wellness for more information or to book an appointment.

UNC 337 250.807.9270

email: healthwellness.okanagan@ubc.ca

Web: www.students.ok.ubc.ca/health-wellness

Student Learning Hub

The Student Learning Hub is your go-to resource for free math, science, writing, and language learning support. The Hub welcomes undergraduate students from all disciplines and year levels to access a range of supports that include **tutoring in math, sciences, languages, and writing, as well as help with study skills and learning strategies**. Students are encouraged to visit often and early to build the skills, strategies and behaviors that are essential to being a confident and independent learner. For more information, please visit the Hub's website.

LIB 237 250.807.8491

email: learning.hub@ubc.ca

Web: www.students.ok.ubc.ca/slh

Safewalk

*Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call Safewalk at **250-807-8076**.*

For more information, see: www.security.ok.ubc.ca