

COURSE SYLLABUS P BIO 376-Winter 2023

Welcome to P BIO 376. This course is the second course in a 2-quarter series about human physiology, building upon P BIO 375 from Autumn quarter. Topics this quarter include cardiovascular physiology, respiratory physiology, digestive physiology, metabolism, endocrine regulation, and reproductive physiology.

INSTRUCTORS

Anna E. Melby, course coordinator

Office: T-487

email: amelby@uw.edu

Linda Wordeman

email: worde@uw.edu

CANVAS PAGE

<https://canvas.uw.edu/courses/1697782>

COURSE WEB PAGE

<https://courses.washington.edu/pbio376/>

LECTURES

Lectures are scheduled for Monday, Wednesday, and Friday at 12:30-1:20 in room T-639 of the Health Sciences Building. Please note that the Health Sciences Building is locked and that you need your Husky card to gain access to the building.

ZOOM AND LECTURE RECORDING

Each lecture will also be scheduled as a Zoom meeting, allowing students to attend remotely if necessary. The Zoom meeting link can be found on the course Canvas page. Lectures will be recorded and posted to the course Canvas page later that day.

LECTURE SLIDES

The slides for each lecture will be made available before the lecture to use during class and for later study. Click on Modules on the Canvas page to see the lectures scheduled for that week and to find lecture slides.

LECTURE SCHEDULE

Readings: pages and chapter section numbers from Human Physiology: An Integrated Approach by Dee Silverthorn, (8th edition, 2019)

Lecturers: AM=Anna Melby, LW=Linda Wordeman

Class day	Date	Lecturer	Topic	Reading
1	1/3	AM	Overview; Structure of Heart and Valves	14.1 & p.440-446
2	1/5	AM	Cardiac Muscle, Cardiac Action Potentials, and Coordination of the Heartbeat	p.446-454
3	1/8	AM	Electrocardiogram and Cardiac Cycle	p.455-463
4	1/10	AM	Regulation of Cardiac Output	p.464-471
5	1/12	AM	Blood Pressure and Cardiovascular Regulation	15.2, 15.5, 791-3
	1/15		HOLIDAY	
6	1/17	AM	Respiratory System Structure and Function	p.533-540
7	1/19	AM	Ventilation; Compliance; Surfactant	p.544-553
8	1/22	AM	Gas Exchange and Transport	18.1 & 18.2
9	1/24	AM	Regulation of Breathing	18.3, 641-5, 789-91
10	1/26		MIDTERM 1	
11	1/29	AM	Digestive System Overview, Structure and Regulation	p.655-667
12	2/31	AM	Gastrointestinal Regulation: Stomach	p.667-673
13	2/2	AM	Gastrointestinal Regulation: Intestines	p.673-684
14	2/5	AM	Fat Absorption; Defecation	p.684-688
15	2/7	AM	Energy Balance and Metabolism	p.694-700
16	2/9	AM	Fasted and Fed States	p.700-706
17	2/12	AM	Hormonal Regulation of Metabolism	p.707-712
18	2/14	AM	Diabetes Mellitus	p.712-719
19	2/16		MIDTERM 2	
	2/19		HOLIDAY	
20	2/21	LW	Adrenal	p.729-734
21	2/23	LW	Thyroid	p.734-739
22	2/26	LW	Growth Hormone	p.739-741
23	2/28	LW	Bone Growth	p.741-751
24	3/1	LW	Reproduction: Sex Determination	p.801-807
25	3/4	LW	Reproduction: Puberty; Male	p.807-815
26	3/6	LW	Reproduction: Female	p.815-823
27	3/8	LW	Reproduction: Pregnancy	p.823-833
	3/14		FINAL EXAM 8:30am (Thursday)	

LECTURE PRACTICE QUIZZES

Each week, there will be a Canvas quiz based on the lecture material up to that point. Each quiz is worth 2 points. You can take the quiz as many times as you like, and your grade for the quiz will be your highest score. The quizzes will expose you to the type of questions you might encounter on a midterm or on the final exam.

These quizzes will always be posted on Friday afternoons and will close by Monday at midnight, with two exceptions before your midterms: LQ4 posted Monday 1/22 and due Friday 1/26 and LQ7 posted Monday 2/12 and due Friday 2/16.

The goal of the online quizzes is to challenge your understanding of the lectures and to provide practice answering exam-type questions. The time-limited assignment window is designed to make you do the quizzes in a timely manner so that you keep abreast of the lecture material. A copy of each quiz will be made available after the due date as an ungraded practice quiz that you can use to help study for your exams.

LECTURE EXAMINATIONS

The first midterm will cover the material presented in lectures on class days 1-9; the second midterm will cover the material presented in lectures on class days 11-18. 60 points of the final exam will cover the material presented in lectures on class days 20-27, with 40 points based on material covered in the two midterms. Old exams that can be used for practice questions are available on the course web page.

Exams will be multiple-choice; you will need to bring a purple Standard Answer Sheet (from the Office of Educational Assessment) to each exam. These purple answer sheets are available at the University Book Store.

The first midterm is scheduled for Friday, January 26th during the scheduled class time. The second midterm is scheduled for Friday, February 16th, also during class. The final exam is scheduled for 8:30 am on Thursday, March 14th. You are expected to attend class on those days (see TEST ATTENDANCE below).

QUIZ SECTIONS

The quiz sections are where we will study anatomy, histology, and clinical examples that are pertinent to the physiology being studied in lecture.

The quiz sections meet once a week on either Tuesdays or Thursdays. The quiz sections **WILL NOT MEET IN THE FIRST WEEK OF THE QUARTER (1/3-1/5)**.

QUIZ SECTION SCHEDULE

The colored shading indicates the topics tested on each quiz section test.

Topic (class meeting dates)	PQ quiz due	Quiz Section Test and Exam Dates
1. Structure of the Heart and Vessels, Heart Sounds and Valve Disorders (1/9 & 1/11)	1/16	
2. Vessel Histology, Dyslipidemia, Respiratory Anatomy and Histology (1/16 & 1/18)	1/22	
3. Midterm 1 Review; Digestive System Gross Anatomy; Bariatric Surgery (1/23 & 1/25)	1/29	Quiz Section Test 1 1/23 & 1/25
		Midterm 1--1/26
4. Digestive System Histology; Patient Case—Celiac Disease (1/30 & 2/1)	2/5	
5. Drug Treatments for Type 2 Diabetes Mellitus; Patient Case—Type 2 Diabetes (2/6 & 2/8)	2/12	Quiz Section Test 2 2/6 & 2/8
6. Midterm 2 Review; Endocrine System: Adrenal and Thyroid (2/13 & 2/15)	2/20	
		Midterm 2--2/16
7. Female Reproductive Anatomy; Hormonal Contraception; Polycystic Ovary Syndrome (2/20 & 2/22)	2/26	Quiz Section Test 3 2/20 & 2/22
8. Male Reproductive Anatomy (2/27 & 2/29)	3/4	
		Quiz Section Test 4 3/5 & 3/7
		Final Exam--3/14

MATERIAL TO STUDY AND PQ QUIZZES

For each quiz section week, there will be a link to a page at the bottom of the Canvas module. This page gathers all the sources of information for that quiz section. It will list the learning objectives for that week, provide quiz section lecture slides, lecture videos, and links to web pages on the course web site.

A graded quiz on each topic will be posted by Friday and due the following Monday at midnight. Like the lecture practice quizzes, you can take each quiz multiple times until you get full credit and Canvas will record your highest score. These quizzes are designed to help you prepare for the quiz section tests.

QUIZ SECTION TESTS

You will be evaluated on what you learn in the quiz section in four tests worth 20 points each. These tests will occur at the beginning of your scheduled quiz section time on the designated test day. Each quiz section test will cover only the block of material covered in the specified quiz sections leading up to that test (color coded in the quiz section schedule above).

TEXTBOOK

Human Physiology, An Integrated Approach, by Dee Silverthorn, 8th edition, 2019

TEST ATTENDANCE

You are expected to attend all lecture exams and quiz section tests **on the day and time assigned**. If you are too ill that day, or you have some other legitimate reason that makes it impossible for you to be present on test day, you must contact Dr. Melby BEFORE the test is scheduled to take place, or AS SOON AS POSSIBLE after the test begins. **Students who fail to attend a test on time without a legitimate excuse will lose 10 points for a lecture exam and 5 points for a quiz section test.** Under such circumstances, a make-up test will be arranged for the earliest reasonable time. Please use email (amelby@uw.edu) to contact me.

GRADING

The point values for all exams and quizzes are as follows:

Midterm 1	60
Midterm 2	60
Comprehensive Final Exam	100
4 Quiz Section Tests (20 pts. each)	80
10 Lecture Practice Quizzes (2 pts)	20
9 Quiz Section Practice Quizzes (2-2.5 pts)	20
TOTAL	340

Your final grade in the course will be based on the percentage of points received on all tests and quizzes. The minimum passing grade is 60%. The course is not graded on a curve.

Approximate Grading Scale (not all possible decimal grades are shown):

Percentage	95-100	90	85	80	75	70	60	< 60
Grade	4.0	3.7	3.2	2.7	2.2	1.7	0.7	0.0

ACCESSIBILITY AND ACCOMMODATIONS

DISABILITY RESOURCES FOR STUDENTS

Your experience in this class is important to me. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments.

If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to Dr. Melby at your earliest convenience so that we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations, you are welcome to contact DRS. Conditions include (but are not limited to): mental health, attention-related, learning, vision, hearing, physical, or health impacts.

Disability Resources for Students contact information:

phone: 206-543-8924

email: uwdrs@uw.edu

web site: <http://depts.washington.edu/uwdrs/>

RELIGIOUS ACCOMMODATION

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at

[Religious Accommodations Policy \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/)

Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form \(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/)