BIO 8S — INTRODUCTION TO HUMAN PHYSIOLOGY
Tentative Course Syllabus

This document is tentative and subject to change.
An official course syllabus will be released when the quarter begins.

Instructor:
Christina Goeders (*cgoeders@stanford.edu*), Office Hours (OHs): TBA

Teaching Assistants (TAs):
TBA

Lectures:
Tuesdays at 6:00pm–8:30pm in Sapp Center for Science Teaching and Learning (STLC), Room 114 (Lecture Hall)

Discussion Sections:
Mondays at 1:30pm–2:45pm, 3:00pm–4:15pm, 4:30pm–5:45pm, and 6:00pm–7:15pm
Sections will begin during the second week of class (on Monday, 6/29). Weekly attendance at one discussion section is required.

Grading Option: Letter Grade or Credit/No Credit
Units: 4

TEXTBOOK (RECOMMENDED)
Guyton and Hall Textbook of Medical Physiology, 14th Edition
ISBN: 978-0-323-59712-8

COURSE DESCRIPTION
Normal functioning and pathophysiology of major organ systems: nervous, respiratory, cardiovascular, renal, digestive, and endocrine. Additional topics include integrative physiology, clinical case studies, and applications in genomics-based personalized medicine. **Course prerequisites:** AP Biology and Chemistry.

EVALUATION
Course grading is based on performance in the following areas:

Discussion Section Attendance……5%
Problem Sets…… 10%
Quizzes…….. 25%
Final Exam…… 60%

FINAL EXAM
All students must take the Final Exam in-person at the date/time scheduled by the University — on **Saturday, August 15, 2026**, **at 7–10pm** (location TBA). The Final is a closed-book, closed-resource exam that must be completed individually. Further instructions will be provided via lecture. An optional review session will be offered prior to the Final Exam to aid in preparation.

HONOR CODE
All students are required to abide by Stanford University's Honor Code in their completion of this course. All submitted work must be completed individually, and all responses (e.g., on PSETs, quizzes, exams) **must** be written in your own words.

ILLNESS POLICY
All course participants must abide by Stanford's current policies regarding infectious illnesses (e.g., COVID and other respiratory illnesses). For this course, masking is **strongly recommended** in class. In the event that course completion may be impacted by illness, students must communicate concerns to the instructor in writing. Where feasible and appropriate, accommodations and/or options for future course completion may be explored.

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Tentative Lecture Schedule

DATE	DAY	TOPIC	READING
06.23.26	**Tu**	**Course Introduction** **Autonomic Nervous System:** Functional Anatomy, Toxidromes, Pharmacology	Ch. 1, 4, 5 Ch. 61
06.30.26	**Tu**	**Skeletal Muscle** **Cardio I:** Hemostasis, Cardiac Anatomy, Electrophysiology	Ch. 6 Ch. 9-11, 37
07.07.26	**Tu**	**Cardio II:** Blood Pressure Regulation, CV Mechanics, Contractility **Respiratory I:** Functional Anatomy, Gas Exchange	Ch. 9, 14, 15, 18, 20 Ch. 38-40
07.14.26	**Tu**	**Respiratory II:** Gas Exchange (cont'd), Regulation of Respiration **Renal I:** Functional Anatomy, Renal Processes	Ch. 41, 42 Ch. 25-28
07.21.26	**Tu**	**Renal II:** Renal Processes (cont'd), Electrolyte and Volume Regulation	Ch. 19, 29
07.28.26	**Tu**	**Renal III:** Quantitative Renal Physiology, Acid-Base Regulation **GI I:** Functional Anatomy, Digestion	Ch. 28, 31 Ch. 63-65
08.04.26	**Tu**	**GI II:** Absorption, Lipid Metabolism, Liver	Ch. 66, 69, 71
08.11.26	**Tu**	**Endocrine:** Hormones, Glucose Regulation **Clinical Applications:** Genomics-Based Personalized Medicine	Ch. 75-77, 79
08.15.26	**Sa**	**FINAL EXAM in-person at 7pm–10pm (**Location TBA)	N/A