

HUMAN PHYSIOLOGY I
BIPN 100 (Summer, 2023)

INSTRUCTOR:

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Office Hours:

Tuesdays (not 7/18 or 8/1) and Thursdays 2:30 - 3:30 p.m.

INSTRUCTIONAL ASSISTANTS:

Section Time Location Office Hours

SEE SECTION/OFFICE HOURS LIST

This course covers the physiology of the nervous, muscular, endocrine, cardiovascular, and renal systems. There will be two lectures (York Hall 2622, Tuesdays/Thursdays 11:00 am - 1:50 pm) per week. Two midterms and a comprehensive final will be given.

	<u>Topics</u>	<u>Date</u>	<u>Grade</u>
Midterm #1	Nerves, Nervous Systems, Skeletal and Smooth Muscle	July 18 (11:00 - 12:30)	30% York 2622)
Midterm #2	Endocrine System, Cardiac Muscle, Circulatory System	August 1 (11:00 - 12:30)	30% York 2622)
Final	Renal System, Fluid Balance, and Everything Else	August 5 (11:30 - 2:30)	40% TBA

REQUIRED MATERIALS

- Text: Human Physiology, Silverthorn; 8th edition
A digital version of the textbook will be available to students through a link on Canvas. You have a limited time period to decide if you want to keep access or opt-out. If you don't opt-out you will be charged for access to the eBook.
- Materials on Canvas (syllabus, detailed course outline, class notes, problem sets, old exams, etc.)

DROP DATES: Check the Summer Session calendar

PROBLEM SETS: They consist of questions that will help you evaluate your understanding of the material covered in the lectures and the reading. In most cases they are similar to exam questions. Treat them like exams (answer the questions before looking at the answers). Those who work through the problem sets (and practice exams) are more likely to receive higher grades. These problems sets are to aid in studying and generate discussion. They are not turned in or graded.

NO CHEATING: You are not allowed to use cheat sheets or cell phones, look at other students' work, or use any kind of help during the exams. Students caught cheating will receive 0 points for that exam, an "F" in the course, and will be reported to the Academic Integrity Office further administrative action. I also consider it unethical to study from old exams that other students don't have access to (this includes materials from friends/fraternities/sororities/the internet/etc.).

BIPN 100 SCHEDULE (Summer, 2023)

<u>LECTURE</u>	<u>DATE</u>	<u>TOPICS</u>	<u>READINGS</u> <u>(Silverthorn 8th ed.)</u>
#1	July 6	Background Neuron Structure/Function Membrane Potentials Action Potentials Synaptic Transmission	(2-24, 121-152) (224-234) (152-159, 234-239) (239-249) (249-264, 368-370)
#2	July 7 (make-up lecture)	Central Nervous System Organization Spinal Cord Organization Somatic Motor System Somatic Sensory System	(272-302) (415-428) (368-370) (308-322)
#3	July 11	Autonomic Nervous System Skeletal Muscle Structure/Function Skeletal Muscle Biomechanics	(356-368) (375-395) (395-400)
#4	July 13	Smooth Muscle Endocrine/Receptor Basics	(400-408) (165-190)
#5	July 18	MIDTERM #1 (Nerves through Smooth Muscle) Control Theory Hypothalamus/Pituitary Axis	(13-18) (195-218)
#6	July 20	Other Systems (Thyroid, Pancreas, etc.) Blood Components Circulatory System	(707-719, 734-739) (511-522) (433-448, 477-492)
#7	July 25	Cardiac Electrophysiology/Control Electrocardiogram Cardiac Mechanics Blood Pressure Control	(448-462) (463-470) (492-495)
#8	July 27	Body Fluids Transport Across Capillaries	(495-500)
#9	August 1	MIDTERM #2 (Endocrine and Cardiovascular systems) Renal System	(588-613)
#10	August 3	Fluid Volume Control Electrolyte Control Diuretics	(619-641)
	August 5 (Saturday)	FINAL (Everything) Where - TBA	11:30 a.m. - 2:30 a.m.

BIPN 100

Human Physiology I

The best way to study for this class is to do the following:

- 1). Come to lecture and take notes (or write notes on the lecture slides).
- 2). Copy your notes. While you do this (or while reading through the lecture slides), use the textbook (or some kind of reference) to help fill in the details or clarify the concepts. The best time to do this is the same day as the lecture. You should also make summary tables (such as a table of receptors, their transduction pathways, locations, and functions) and draw out the transduction pathways/other important figures. Just reading the lecture slides is probably not going to be an effective way to study.
- 3). Make a list of questions while you study the lectures. Bring the list with you to office hours and sections so you can make sure to get answers to all of your questions.
- 4). Study before going to section.
- 5). First do the problem set questions without looking at the answers. This is the best way to practice problem solving and assess how well you know the material. Then check your answers against the answers that are provided. Make a list of questions about things that don't make sense or about how to do the problem solving.
- 6). The review sessions will be used to go over the practice exams. Do the practice exam questions before coming to the review sessions.

YOU ARE ALLOWED TO:

- 1). Make audio recordings of the lectures/review sessions and use the recordings for your own studying.

YOU ARE NOT ALLOWED TO:

- 1). Make video recordings of the lectures, sections, office hours, or review sessions (you should always ask someone before taking a video of them – and my answer will be “No”).
- 2). Post any class materials (including lectures, audio or video recordings, problem sets, exams, etc.) on the internet.

Any of these will be reported as a violation to the Academic Integrity Office