Biol 3343– Physiology Lecture

Course Syllabus – **Spring 2026**

T/Th 12:30 pm-1:50 pm in RBS 1031

INSTRUCTOR Sara Rumbelow, M.S.
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Office hours: T/Th 9:30 am-12 pm, or by appointment

COURSE MATERIAL

Textbooks: Pearson's Mastering A&P with e-Text - Human Physiology: An Integrated Approach, 9/e, Dee Unglaub Silverthorn. Access code available in the campus bookstore or purchase through the Access Pearson link in your Canvas course.

COURSE DESCRIPTION

This course will provide advanced knowledge on the principles of human and animal physiology at the cellular and organ systems level. Current topics include the major organ systems structure and their functions in maintaining homeostasis essential for cell survival.

SPECIFIC OBJECTIVES

1. Review the structure and function of the various cell and tissue types
2. Explain the structure and function of the major organ systems and regulatory mechanisms involved
3. Decode contribution of each system to whole body homeostasis
4. Interconnect scientific concepts to real world physiology case studies, including those in the biomedical field

EVALUATION

Attendance: 10%
Paper: 20%
Midterm exams: 45%
Final exam: 25%

Exams will be a mix of multiple choice and short answer. Midterm exams will be conducted during class time. Midterm exams are NOT cumulative; the final exam IS cumulative. There will be three midterm exams, with the lowest exam will be dropped so that the highest two midterm exam will be worth 22.5% each towards of your final grade. Details of the paper will be provided in class.

Attendance will count for 10% of your grade; attendance will be taken at random during the semester. Only valid medical or emergency excuses for absences will be accepted. You are responsible for signing the sheet!

No make-up exams will be given unless arranged ahead of time with a valid excuse (e.g. athletic tournament, hospitalization, etc). I do not curve or round grades – do not ask please.

TENTATIVE CLASS SCHEDULE

Week	Topic	Chapter in Silverthorn, 9e
1: JAN 13	Intro to Physiology	1
	Molecular Interactions	2
2: JAN 20	Compartmentation: Cells and Tissues	3
	Energy and Cellular Metabolism	4
3: JAN 27	Membrane Dynamics	5
	Communication, Integration, and Homeostasis	6
4: FEB 3	Communication, Integration, and Homeostasis	6
FEB 5	MIDTERM 1	Ch's. 1-6
5: FEB 10	Immune System	7
	Intro. to Endocrine System	8
6: FEB 17	Nervous System	9-12
	Nervous System	9-12
7: FEB 24	Nervous System	9-12
	Muscles	13
8: MARCH 3	Control of Body Movement	14
MARCH 5	MIDTERM 2	Ch's. 7-14
9: MARCH 9	**SPRING BREAK ☺ (No Classes)**	
10: MARCH 17	Cardiovascular System	15-17
	Cardiovascular System	15-17
11: MARCH 24	Cardiovascular System	15-17
	Respiratory System	18-19
12: MARCH 31	Respiratory System	18-19
	Urinary System/Fluid and Electrolyte Balance	20-21
13: APR 7	Urinary System/Fluid and Electrolyte Balance	
APR 9	MIDTERM 3	Ch's. 15-21
14: APR 14	Digestive System	22
	Metabolism and Endocrine Control of Growth	23-24
15: APR 21	Metabolism and Endocrine Control of Growth	23-24
	Reproduction and Development	26
16: APR 30	FINAL EXAM – 12:30 pm – 2:30 pm	Cumulative with focus on Ch's. 22-26

Important Dates:

Mar 9-13 – Spring break (no class)

Mar 30 – Final date for dropping with a W

April 27 – May 1 – Final exam period

***** I reserve the right to make changes to this schedule throughout the semester but I will inform you of any changes in a timely fashion *****

Midterm 1: Intro to physiology; molecular interactions; cells and tissues; metabolism, membrane and homeostasis

Midterm 2: Immune system; endocrine system; nervous system; muscles and body movement

Midterm 3: Cardiovascular system; respiratory system; urinary system and fluid/electrolyte balance

Final: Cumulative but will include additional focus on digestive system, growth, and reproduction

Letter grades will be assigned according to the following scale:
A: >90; B: 80-89.9; C: 70-79.9; D: 60-69.9, F: <60.

CLASS EXPECTATIONS AND ACADEMIC MISCONDUCT:
Students will be expected to follow the University of Texas at Tyler Honor Code.
Submitting plagiarized work to meet academic requirements including the representation of another's work or ideas as one's own; the unacknowledged work for word use of another person's ideas; and/or the falsification, or dishonesty in reporting research results shall be grounds for charges of academic misconduct. Any cheating or other types of academic misconduct will be reported to the university administration and at minimum will result in automatic failure of the course.
Use of electronic devices (e.g. phones, tablets, smart watches, etc) during exams is strictly forbidden.