

PHYSIOLOGY FOR NURSING (ZOOL 2230-001) SYLLABUS
TR 12:30 – 1:45 pm; Room N322

Instructor: Dr. Katherine M. Schroeder

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Prerequisite: 1) BIOL 1010/1020 or BIOL 1050, *and* 2) Grade of C or better in ZOOL 2250, Human Anatomy for Nursing.

Scope of course:

The focus of this class is on the human body, its function and mechanisms. This course provides the scientific foundation for the field of medicine and all other technologies related to human health and physical performance. The scope of topics included in this course is wide-ranging. However, each topic is covered in sufficient detail to provide a firm basis for future expansion and application.

Course objectives:

1. Describe the topics studied in physiology and explain the importance of physiology in modern medicine.
2. Examine the role of the scientific method in the study of physiology as it relates to evaluating evidences and drawing logical conclusions.
3. Examine fundamental physiological principles, and the progression of structural levels of organization, and evaluate them as they apply to the homeostasis of human systems.
4. Investigate the chemical basis of life with emphasis on structure and function of macromolecules.
5. Describe the mechanisms of dehydration synthesis and hydrolysis reactions and their significance.
6. Examine the tissue level of organization and interpret the role of tissues in human systems.
7. Compare and contrast the location, organization and function of the four basic classifications of human tissues.
8. Define homeostasis and explain how this concept is used in physiology and medicine.
9. Describe the nature of negative and positive feedback loops and explain how these mechanisms act to maintain homeostasis.
10. Distinguish between intrinsic and extrinsic regulation and the roles of nervous and endocrine systems.
11. Examine and describe the major features and functions of the cardiovascular, respiratory, muscular, digestive, immune, reproductive, and renal systems and their contributions to homeostasis.

Required text and other materials:

- *Human Physiology*, 13th Ed. by Stuart Ira Fox
- Online access to ConnectPlus Anatomy and Physiology. Go to http://connect.mcgraw-hill.com/class/k_schroeder_spring_2015 and click on “register now”.
- Online access to BlackBoard; check at least weekly
- Four Scantron 882-E sheets, and no. 2 pencil for exams
- iclicker remote: Can buy, reuse, rent. Must register your iclicker, using your CSU student ID, at <http://www1.iclicker.com/register-clicker/>.

Grading

	Percent of final grade
Exam 1	15
Exam 2	15
Exam 3	15
Final Exam	30
iclicker	10
Assignments: LearnSmart	15

Midterm exams

- 3 midterm exams, 50 questions each; multiple choice, matching, true or false

Final exam

- 100 questions, 50 comprehensive, 50 on material covered since last exam; same format as midterm exams

Assignments: ConnectPlus LearnSmart

- one assignment per chapter; to be completed ideally *before* lecture; due by 11:59 pm day after lecture as specified on outline

iClicker

- Will use most days; two missed days will not affect your grade
- Points count toward grade after second week
- Each day used: three questions, up to three points earned—one for participation, two for correct answers (so if miss one of three questions, still get full points)
- Questions on material covered that same day

Final grade

93-100% = A	87-89% = B+	77-79% = C+	67-69% = D+
90-92% = A-	83-86% = B	73-76% = C	60-66% = D
	80-82% = B-	70-72% = C-	0-59% = F

Other

- Please check syllabus first if any questions; if still in doubt, then ask me
- No makeup exams. Exceptions may be made only under very special circumstances with valid excuse. For example, if you know you will have to miss an exam, I may let you take it before scheduled time, given enough notice.

Tentative Course Outline			
Week	Date	Lecture	Chapter
1	1/27	Overview of Course; The Study of Body Function	1
2	1/29	The Study of Body Function	1
	2/3	Chemical Composition of the Body	2
3	2/5	Cell Structure and Genetic Control	3
	2/10	Enzymes and Energy	4
4	2/12	Cell Respiration and Metabolism	5
	2/17	catch-up; review	
5	2/19	Exam 1 (chapters 1-5)	
	2/24	Interactions Between Cells and the Extracellular	6
6	2/26	The Nervous System: Neurons and Synapses	7
	3/3	The Central Nervous System	8
7	3/5	The Autonomic Nervous System	9
	3/10	Sensory Physiology	10
8	3/12	catch-up; review	
	3/17	Exam 2 (chapters 6-10)	
9	3/19	Endocrine Glands: Secretion and Action of Hormones	11
	3/24	Muscle: Mechanisms of Contraction and Neural Control	12
10	3/26	Blood, Heart, and Circulation	13
	3/31	Cesar Chavez Day; no classes	
11	4/2	Cardiac Output, Blood Flow, and Blood Pressure	14
	4/7	Spring Break!	
12	4/9	Spring Break!	
	4/14	The Immune System	15
13	4/16	catch-up; review	
	4/21	Exam 3 (chapters 11-15)	
14	4/23	Respiratory Physiology	16
	4/28	Physiology of the Kidneys	17
15	4/30	The Digestive System	18
	5/5	Regulation and Metabolism	19
16	5/7	Reproduction	20
	5/12	catch-up; review	
17	5/14	review chapters 1-15	
18	5/21	Final Exam (11:15-1:15pm)	