

**PHYSIOLOGY ABIO 242 (4 credit hours)
SUMMER II 2001**

- INSTRUCTOR:** Dr. Buck Pridgen (Contact through Ms. Cutsinger, Dept Administrative Assistant, Room 201)
- LECTURE ROOM:** Science Bldg Room 108 & 200
- LABORATORY:** Science Bldg Room 108
- TEXTBOOK:** *Human Physiology: An Integrated Approach*, 2d Ed., Silverthorn
- LAB MANUAL:** *PhysioEx 2.0: Laboratory Simulations in Physiology*. Zao
(NOTE: At the end of the semester the lab book will not be returned to the student; you may, however, keep the CD-ROM)
- COURSE DESCRIPTION:** This is an introductory course to human physiology. Current concepts and teaching of cellular biology will be emphasized as the commonality of biochemical events which provide the foundation of function for the varied body systems.
- COURSE OBJECTIVES:**
- 1) To provide the student with an understanding of basic biochemical operations in the functional output of cells and systems.
 - 2) To survey the functions of individual organs and systems.
 - 3) To acquaint the student with the integration of systems function as the manifestation of ultimate body homeostasis.
 - 4) To expose the student to the constructs of scientific inquiry through laboratory experimentation with primary hands-on and simulation activities.
 - 5) To provide a brief introduction to abnormal function/pathophysiology/disease of selected organs/systems.
 - 6) To challenge the student to appreciate "the wonder of it all"!
- EVALUATION:**
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| Three (3) Lecture/Lab Tests | 45% |
| Laboratory exercises, reports | 20% |
| Written Critique on current literature | 10% |
| Final Comprehensive Exam | 25% |

ADDITIONAL COMMENTS:

- 1) You will be expected to have read the assigned material prior to lecture.
- 2) You will be expected to have read applicable lab manual exercises.
- 3) You must bring the laboratory manual to lab.
- 4) You will be expected to endorse the following **HONOR PLEDGE** on every quiz/exam:
On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on the assignment/examination. To the best of my knowledge, I am not in violation of academic honesty.
- 5) No makeup exams will be given for the laboratory portion of the quizzes. No makeup exams will be given for the lecture portion except under some extreme situations (see Student Handbook).
- 6) You are encouraged to make appointments with me **if you are having problems understanding the expectations and content of this course.**
- 7) If you have a physical, psychological, and/or learning disability that might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.
- 8) **We will be using the machine graded Scantron sheets for Lecture quizzes this semester!!!!!! Please insure that you have both the answer sheet and a #2 lead pencil on the day of the quiz!!!!!!**
- 9) **This will be a difficult course. I strongly advise each and every one to utilize your time judiciously and to prioritize your outside time in order to stay current on the assignments!!!!**

ABIO 242 Physiology - Summer II 2001 - Proposed Schedule

Jul 9	Mon	Housekeeping, Pre tests Introductory Topics	Chap 1: Esp. pp. 6-11
Jul 10	Tues	Membranes & (Molecular) Movements Simple Diffusion	Chap 5
Jul 11	Wed	LAB: Simple Diffusion Respiratory Gas Laws, O ₂ & CO ₂ diffusion O ₂ Transport Pulmonary Volumes & Mechanics Control of Respiration	PhysioEx 5B Chap 17
Jul 12	Thurs	LAB: Pulmonary Function Tests LAB: Pulmonary Mechanics Membranes & (Molecular) Movements Mediated Transport Facilitated diffusion Active transport	Handout PhysioEx 48B Chap 5
Jul 16	Mon	TEST #1 CO ₂ Transport (and THE H ⁺ ion)	Chap 17
Jul 17	Tues	LAB: Facilitated & Active Diffusion/Transport CLINICAL LAB: Diet and acid-base-water Acid-Base Balance Clinical Problems	PhysioEx 5B Chap 19
Jul 18	Wed	CLINICAL LAB: Diet and acid-base-water Communication: Signals Junctions, transmitters, hormones	Chap 6
Jul 19	Thurs	Endocrine Metabolism & Growth	Chap 7 Chap 20, 21
Jul 23	Mon	TEST #2 Wires & Engines Conducting Membranes Neurons	Chap 5 Chap 8
Jul 24	Tues	LAB: Neuro-Brain Neuro-Endocrine & Autonomic	NeuroSim Chap 9 Chap 11
Jul 25	Wed	Muscles: Striated & Smooth&Cardiac Heart: Electrical Pump	Chap 12 Chap 14
Jul 26	Thurs	LAB: EKG Cardiovascular: Pipes and Pressures LAB: Cardio Dynamics	PhysioEx 35B Chap 15 PhysioEx 33
Jul 30	Mon	TEST #3 Kidney: More water and processing and pressures	Chap 18
Jul 31	Tues	LAB: Renal Sensory	PhysioEx 49B Chap 10
Aug 1	Wed	LAB: Sight and Sound Blood & Immune	Chap 16 &22
Aug 2	Thurs	Reproductive Standardized Quiz	Chap 24, Appendix B
Aug 6	Mon	Review & Things	
Aug 7	Tues	FINAL EXAM	