

**PHYSIOLOGY (ABIO 242 -- 4 Credit Hours)  
Summer II Semester 2005**

Instructor: Norris L. O'Dell, DMD, PhD

Office: Room 209  
Department of Biology and Geology

Lecture Room: Science Bldg. Room 200

Laboratory: Science Bldg. Room 100

Textbook: ***Human Physiology***, 3rd Ed., Silverthorn

Lab Manual: ***PhysioEx for Human Physiology 6.0***, Stabler et al.

Laboratories: The laboratory sessions are mandatory and will rely heavily upon computer simulations. You will use the Laboratory Text as a notebook that will be handed in at the conclusion of each laboratory session. At the end of this course, the lab book will not be returned, but the CD that accompanies this text will be returned to you.

Course Description: A survey of the functions of many of the human organ systems is the focus of this course. A combination of lectures and laboratory experiences will be used to emphasize many of the major tenets in physiology.

Course Objective: This course is designed to introduce students to the functional organization of the human body through a study of cells, tissues, organs and organ systems.

Evaluation: Four Weekly Tests 80%  
Laboratory Exercises (Notebook) 20%

Grading Model:  
90 - 100 A  
80 - 89 B  
70 - 79 C  
60 - 69 D  
59 and below F

Additional Comments:

- Due to the short time period that this course spans, you will need to read the assigned textbook and laboratory materials before class.
- **Attendance at all laboratories is required.** Missing a laboratory session will not be excused without prior notice or the appropriate documentation. Bring your laboratory manual and textbook to each laboratory session.
- Endorse the following Honor Pledge on every test/exam: “On my honor as a University of South Carolina at Aiken student, I have neither given nor received unauthorized aid on the assignment/examination. To the best of my knowledge, I am not in violation of academic honesty.”
- No make-up examinations will be given for the lecture tests/examination except under some extreme situations (see Student Handbook).
- If you have any questions, problems or other concerns that I might be able to help you with, then please see me directly in Room 209, or arrange to see me through Ms. Cutsinger in Room 201. I consider it a privilege to teach, and will try to help you in any way that I can.
- If you have a physical or learning disability that might affect your performance, 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.
- We will use the machine-graded Scantron sheets for all of the Lecture Examinations. Please be sure that you have the 100 question Scantron Sheets and a #2 pencil on the day of each scheduled test/examination.

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**CLASS SCHEDULE**

**(Monday through Thursday -- Room 200)**

| <b>Date</b> | <b>Topic</b>                                                                     | <b>Reference</b>                |
|-------------|----------------------------------------------------------------------------------|---------------------------------|
| June 30     | Introduction - Cells & Tissues<br>Membrane Dynamics                              | CH 3<br>CH 5                    |
| July 04     | Holiday                                                                          |                                 |
| 05          | Lab: Cell Transport & Permeability                                               | Lab Manual(1)                   |
| 06          | Communication, Integration & Homeostasis<br>Introduction to the Endocrine System | CH 6<br>CH 7                    |
| 07          | Neurons: Cellular & Network Properties<br>Lab: Neurophysiology of Nerve Impulses | CH 8<br>Lab Manual(3)           |
| 11          | <b>Test # 1</b> (Covers June 30-July 7)<br>The Central Nervous System            | CH 9                            |
| 12          | Sensory Physiology                                                               | CH 10                           |
| 13          | Autonomic & Somatic Motor Control                                                | CH 11                           |
| 14          | Muscles<br>Control of Body Movement<br>Lab: Skeletal Muscle Physiology           | CH 12<br>CH 13<br>Lab Manual(2) |
| 18          | <b>Test # 2</b> (Covers July 11-14)<br>Cardiovascular Physiology                 | CH 14                           |
| 19          | Lab: Cardiovascular Physiology                                                   | Lab Manual(6)                   |
| 20          | Blood Flow & Control of BP<br>Lab: Cardiovascular Dynamics                       | CH 15<br>Lab Manual(5)          |
| 21          | Blood<br>The Immune System                                                       | CH 16<br>CH 24                  |
| 25          | <b>Test # 3</b> (Covers July 18-21)<br>Mechanics of Breathing                    | CH 17                           |
| 26          | Gas Exchange & Transport<br>Lab: Respiratory Mechanics                           | CH 18<br>Lab Manual(7)          |
| 27          | The Kidneys<br>Renal System Physiology                                           | CH 19<br>Lab Manual(9)          |
| 28          | Fluid & Electrolyte Balance<br>Lab: Acid-Base Balance                            | CH 20<br>Lab Manual(10)         |
| August 01   | Digestion                                                                        | CH 21                           |
| 02          | Lab: Chemical & Physical Processes of Digestion                                  | Lab Manual(8)                   |
| August 03   | <b>Test #4</b> (Covers July 25- Aug 2)                                           |                                 |