

# HUMAN PHYSIOLOGY - BIO 246

## Laboratory Syllabus

Spring 2008

**Instructor:**

Dr. William I. Lutterschmidt  
Department of Biological Sciences  
Lee Drain Building, Room 114A  
Email: lutterschmidt@shsu.edu

**Laboratory:**

Lab 01: Th 1200 - 1400 h  
Lab 02: Th 1400 - 1600 h  
LDB (Room 109)

**Required Textbook:**

Lutterschmidt, W.I. and D.I. Lutterschmidt. 2008. Laboratory Exercises in Human Physiology: A Clinical and Experimental Approach, 2<sup>nd</sup> Edition. McGraw-Hill Co. Pp. 224.

### Syllabus

| Week | Date        | Topic   | Laboratory Readings                        |
|------|-------------|---|--|
| 1    | 1-17        | No Laboratory   |  |
| 2    | 1-24        | Introduction to Ph.I.L.S.<br>Scientific Investigation     | Laboratory 1<br>(Evans Complex - Room 360) |
| 3    | 1-31        | Homeostasis   | Laboratory 2                               |
| 4    | 2-7         | Diffusion, Osmosis, and Tonicity                          | Laboratory 3                               |
| 5    | 2-14        | Enzyme Activity   | Laboratory 4                               |
| 6    | 2-21        | Action Potentials   | Laboratory 5                               |
| 7    | 2-28        | Reflexes  | Laboratory 6                               |
| 8    | 3-6         | Sensory Physiology  | Laboratory 7                               |
| 9    | <b>3-13</b> | <b>SPRING BREAK</b>                                       |  |
| 10   | 3-20        | Functional Anatomy of Muscle and Mechanics of Contraction | Laboratory 8                               |
| 11   | 3-27        | Physiology of Muscle Contraction                          | Laboratory 9                               |
| 12   | 4-3         | Endocrine Physiology                                      | Laboratory 10                              |
| 13   | 4-10        | Cardiovascular Physiology                                 | Laboratory 11                              |
| 14   | 4-17        | Physiology of Blood                                       | Laboratory 12                              |
| 15   | 4-24        | Respiratory Physiology                                    | Laboratory 13                              |
| 16   | 5-1         | Metabolic Rate  | Laboratory 15                              |

### LABORATORY GRADE

|   |   |
|---|---|
| Laboratory Quizzes (5 worth 20 points each) | 100 points                                |
| Laboratory Reports (2 worth 20 points each) | 40 points                                 |
| Group Laboratory Paper                      | 50 points                                 |
| Participation                               | 10 points                                 |
| <b>Total Laboratory Grade</b>               | <b>200 points</b> (25.0% of Course Grade) |