

**Cedar Crest College**  
**BIO 117, Human Anatomy and Physiology I**  
**Laboratory Syllabus and Operational Procedures**  
**Summer 2008**

**Instructors:** Mrs. Judith Malitsch

**Office:** Miller Bldg, Room 23; **Office Hours:** After lab and by appointment

**Telephone:** 610-606-4666, Ext. 3605 Administrative Assistant, Dianne Molchany, Ext. 3378

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**Laboratories:** MTWR, 7:45 - 9:45, SCI 102

**I. Description: Human Anatomy & Physiology I Lab** 4 credits (lecture and lab)

The laboratory component is an experiential course integrating the structure and function of the human body with clinical applications. Laboratory exercises will provide foundational knowledge in anatomical terminology, a survey of the body systems, microscopy, the structure and function of the cell and cell transport, histology and the integumentary, skeletal, muscular, nervous and sensory systems.

*Prerequisites: None*

**II. Course Objectives:** In a hands-on approach of experiences, students will develop a coherent understanding of the human body through the use of slides, models, specimens, experiments and audiovisual aids in order to:

- Learn, understand and appreciate the anatomical and physiological design of the human body.
- Learn, understand and appreciate the intimate relationship between structure and function.
- Learn, understand and appreciate the interrelationships of the body systems.
- Learn, understand and appreciate the concept of homeostasis.
- Learn, understand and appreciate that A&P is a 'cell idea'.

**III. Learning Outcomes/Assessment:**

- Students will demonstrate knowledge of anatomical and medical terminology and engage in direct applications to their health careers and their own health and wellness.

**Assessment:** Oral review, lab practical tests.

- Students will demonstrate knowledge of physiology and the understanding that structure determines function.

**Assessment:** Experiments, lab practical tests, class discussion.

- Students will develop critical thinking and scientific reasoning skills in the analysis of physiological experiments and understanding the complementarity of structure and function.  
**Assessment:** Lab practical tests, class discussion.
- Students will demonstrate knowledge of the cellular importance of the anatomical/physiological design of the human body and develop microscopy skills. **Assessment:** Cytological and histological studies/microscopy; lab practical tests.
- Students will demonstrate anatomical knowledge of body systems, bones, muscles and our senses.  
**Assessment:** Skeletons, cat dissections, sheep brains, cow eyes, cadaver photos.

#### IV. **Laboratory Course Topics:**

- |                           |                        |
|---------------------------|------------------------|
| - Anatomical Terminology  | - Integumentary System |
| - Organ Systems           | - Skeletal System      |
| - Microscopy              | - Muscular System      |
| - Cell Structure/Function | - Nervous System       |
| - Tissues                 | - Senses               |

#### V. **Required Books:**

Marieb, Elaine N., 2007. Human Anatomy and Physiology, 7<sup>th</sup> Ed.  
Pearson Benjamin Cummings (Pearson Education Inc.)

Marieb, Elaine N., Mitchell, Susan J, 2009. Human Anatomy and Physiology Laboratory Manual. 8th Ed. Update (Main). Pearson Benjamin Cummings (Pearson Education Inc.)

Rust, Thomas, G., 1986. A Guide to Anatomy and Physiology Lab. 2nd Ed.  
Southwest Educational Enterprises

Yokochi, C., Rohen, J.W., Weinreb, E.L., 1989. Photographic Anatomy of the Human Body, 3rd Ed. EGAKU-SHOIN Medical Publishers, Inc., NY.

#### VI. **Policies: Attendance:**

Laboratory attendance is **MANDATORY** by College policy. Notification from the Dean of Students Office is the only acceptable documentation for an absence. **Undocumented lab absences on non-exam days will result in a 10% current test grade reduction for each absence. Undocumented lab absences on test days will result in a zero for the test.**

A documented absence on an exam day will result in an incomplete grade for the course providing you have completed 75% of the course with an overall minimum average of a C-. The test will then be completed in accordance with the College catalog and at my discretion.

Tardiness will be penalized at my discretion. If you arrive late for a test, you will forfeit that time for completion of the test.

### **Preparation for Class:**

Lab coats and closed-toed shoes are mandatory. Fingernail length must not interfere with lab skills. Bring your lab manual, supplemental guides, folder, notebook, highlighter and colored pens/pencils (optional) **to every lab**. Prepare for each lab by reading through the exercise. Since the labs are very comprehensive and thorough in design, it is imperative that you are prepared to work. Use all available class time for laboratory work either written work, or both.

### **While in LAB: Take notes!**

**Written Work:** You are expected to completely answer all questions and label diagrams in the lab exercise and the laboratory review sections (answer keys provided)

**Laboratory Work:** You are expected to complete each exercise that is assigned. You are also expected to contribute as a team member for lab exercises. In order to be successful in A&P lab, **YOU MUST COME INTO THE LAB TO STUDY!**

Plan your time for study/dissection review in the lab during the day and on the three-day weekends.

**When not in LAB:** Use the *PAL* (Practice Anatomy Lab) study tool linked to the [www.MyA&P.com](http://www.MyA&P.com) website. If you are not already registered, you must register using the access code in your lab manual. This site contains five modules that are excellent for reviewing lab. Be sure to use the Histology Module in addition to your lab book's CD Rom for the lab exams.

### **Evaluation/Grading Policies:**

- ◆ **There will be three non-cumulative practical exams.** Each *practical* will consist of stations with thought questions pertaining to a model, slide, specimen **and a handout** with multiple choice questions, pathways and short answer questions. The Honor Code must be followed during all lab work and on all exams.

- ◆ Your lab grade is then 50% of your final course grade.
- ◆ You are responsible for EVERYTHING discussed in lab. Take notes!

**Cedar Crest: The professors within the Department of Biological Sciences support the campus-wide policies as described in the *Student Handbook*.**

I fully support the **Cedar Crest College Honor Code, Academic Standards of Integrity and the Classroom Protocol Code** as stated in the *Student Handbook*. Cheating will result in a zero for exams. If necessary, violations should be brought to the attention of the instructor. Violations may result in removal from lab and be formally addressed by the appropriate individuals: Dr. Kent Fitzgerald (Chair), Dr. Carol Pulham (Provost), Joan Laffey (Dean of Students) and Christine Spindler (Director of the Advising Center). There will be zero tolerance during lab and ‘open lab times’ for disruptive, disrespectful, out of control behavior. Security will be called in the event such behavior occurs.

I fully support the College’s policy on plagiarism as described in the Student Handbook. Cases will be reported to the Provost as necessary.

Students with **documented** disabilities who may need academic accommodations should discuss these needs with their professors during the first week of class. Students with disabilities who wish to request accommodations should contact the advising center.

### **Miscellaneous:**

- All students must have CCC email and check it daily.
- ALWAYS bring your lab manual and guides to class.
- Lab dissection specimens and microscopes must not be removed from the lab.
- **Everyone must wear a lab coat**, not an oversized shirt or apron, and closed-toed shoes. Wear gloves/goggles when necessary. Tie back any long hair while in the lab. **Wash your hands frequently**. Using the spray bottles on the tables which contain a bleach solution, clean your lab tables after each exercise.
- Food and beverages (including anything bottled) are not permitted in the lab.

- Due to the hazards in lab and abiding by the classroom protocol code establishing a learning environment for all registered students, children are not permitted to be in the lab.
- Silence all cell phones during lab unless there is an impending situation that has been discussed with me. Cell phones and any other electronic device are NOT permitted during a lab test.
- If you don't understand instructions, **ASK**; whenever you are unsure, **ASK**.
- If you don't understand instructions, **ASK**; whenever you are unsure, **ASK**.  
With the evolving health care field and your chosen career paths, I have a responsibility to provide you with the highest quality course in A&P. To that end, you will be engaged in a rigorous and thoroughly comprehensive course designed to encourage you to observe, think and analyze. Therefore, it is important and in your best interest that you maintain a positive attitude to succeed and in the process realize that time, effort and perseverance are required and as a result, you will be knowledgeable, successful and qualified in your career path.
- Our *open lab policy* and philosophy provide you with an opportunity to complete/review lab exercises and prepare for tests. Whenever you are in the lab studying, SIGN IN and SIGN OUT on the clipboard in the lab and always bring your student ID. If you need assistance or help, use any campus telephone to dial "O" to reach a Safety & Security Officer. While off campus, call 610-437-4471 and ask for assistance.

*Science Center Hours: Monday-Friday 7:00-10:00 PM  
Saturday, Sunday Closed unless requested open.*

**If any lab equipment is found to be missing, or if lab materials are left in disarray, lab privileges will be terminated and the lab will always be locked over the weekends.**

BIO 117 LAB – SUMMER 2008

MAY

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				<b>1</b>	<b>2</b>	<b>3</b>
<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
<b>18</b>	<b>19</b> Ex: 1, 2 A&P Language Terminology Organ Systems	<b>20</b> Ex: 2, 3,4 Microscopy Cytology	<b>21</b> Ex: 4, 6 Cell Division Histology	<b>22</b> Ex: 6, 7 Histology Skin	<b>23</b>	<b>24</b>
<b>25</b>	<b>26</b> <b>Holiday – No Class</b>	<b>27</b> Ex: 5, 8 Membrane Transport Membranes	<b>28</b> Study Day	<b>29</b> <b>Lab Test #1 Ex: 1-8</b>	<b>30</b>	<b>31</b>

BIO 117 LAB – SUMMER 2008

JUNE

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
<b>1</b>	<b>2</b> Ex. 9, 10	<b>3</b> Ex. 10, 11	<b>4</b> Ex. 11, 12, 13	<b>5</b> Ex. 13, 14, 15	<b>6</b>	<b>7</b>
<b>8</b>	<b>9</b> Ex: 15 Muscles	<b>10</b> Ex: 15 Muscles	<b>11</b> Study Day	<b>12</b> <b>Lab Test #2</b> Ex: 9-15	<b>13</b>	<b>14</b>
<b>15</b>	<b>16</b> Ex: 17, 19 Nervous Tissue Slides Brain Dissection	<b>17</b> Ex: 19, 21 Brain Spinal Cord	<b>18</b> Ex: 22, 23, 24 Reflexes Sensation Vision	<b>19</b> Ex: 25, 26 Hearing Olfaction Taste	<b>20</b>	<b>21</b>
<b>22</b>	<b>23</b> Study Day	<b>24</b> <b>Lab Test #3</b> Ex: 17-26	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>
<b>29</b>	<b>30</b>	July 1	July 2	July 3	July 4	July 5
July 6	<b>July 7</b> <b>Summer Session II</b>					