

Cedar Crest College
BIO 118, Human Anatomy and Physiology
Laboratory Syllabus and Operational Procedures
Summer 2009

Instructors: Mrs. Judith Malitsch

Office: Miller Bldg, Room 23; **Office Hours:** After lab and as needed.

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

- I. Description: Human Anatomy & Physiology II 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 involve the following systems: Endocrine, Cardiovascular, Lymphatic, Immune, Respiratory, Digestive, Urinary and Reproductive enhanced by microscopy, dissections, observations of human organs and models, clinical observations and physiological assessment. Aspects of metabolism and development will also be included. *Pre-requisite: BIO 117*
- 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, posters 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.
- III. Learning Outcomes/Assessment:**
- Students will demonstrate knowledge of physiology and the understanding that function follows structure.
 - Students will demonstrate knowledge of anatomical (medical) terminology and engage in direct applications to their health careers and their own health and wellness.
Assessment: Oral review, class discussion, lab practical tests.
 - Students will demonstrate anatomical knowledge of the endocrine glands, heart, blood vessels, and the lymphatic, respiratory, digestive, urinary and reproductive systems.
Assessment: Review of models, dissections (sheep heart, fetal pig, sheep pluck, pig kidney) human organs, cadaver photo study, lab practical exams.
 - Students will demonstrate knowledge of the cellular importance of the anatomical and physiological design of the human body and its relationship to disease/disorder states.
Assessment: Cytological, histological studies, lab practical tests.
Assessment: Review of models, dissections, class discussion, experiments, lab practical tests
 - Students will develop critical thinking, analytical skills.
Assessment: Physiological experiments, flowcharts of physiological pathways.

IV. Laboratory Course Topics:

- Endocrine System
- Cardiovascular System
- Lymphatic/Immune System
- Respiratory System
- Digestive System/Metabolism
- Urinary System
- Reproduction/Development

V. Required Books:

Marieb, E. and Hoehn, K. 2010. *Human Anatomy and Physiology*, 8th Ed.
Pearson Benjamin Cummings (Pearson Education Inc.)

Marieb, Elaine N., Mitchell, Susan J., 2009. *Human Anatomy and Physiology Laboratory Manual*. 8th Ed. Update (Main Version). 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.

Medical Dictionary: *Optional*

VI. Policies: Attendance:

Laboratory attendance is **MANDATORY** by College policy. Notification from the Dean's 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 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 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 tests. If necessary, violations should be brought to my attention. Violations may result in removal from lab and be formally addressed by the following individuals: Dr. Carol Pulham (Provost), Dr. John Cigliano (Chair), Dr. Denise O'Neill (Acting Dean of Students) and Christine Nowik (Director of the Advising Center). There will be zero tolerance during lab and 'open lab times' for disruptive, disrespectful behavior. Security will be called in the event such behavior occurs.

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. Check it often.
- ALWAYS bring your lab manual **and guides** to class.
- Lab equipment, specimens, slides, models, and microscopes must not be removed from SC 102.
- **Everyone must wear a lab coat**, not an oversized shirt or apron, and closed toed shoes. Wear gloves/goggles when necessary. Tie back long hair while in the lab. Using the spray bottles on the tables which contain a bleach solution, clean your lab tables after each exercise. **Wash your hands frequently.**
- 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.

- Cell phones, digital cameras and any other electronic devices are not allowed during lab. If there is an impending situation that warrants cell phone availability, please discuss this with me before lab begins. **The use of digital cameras for photography in lab during class time is prohibited.**
- 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 make you 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 chosen career path.

- The *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 118: LAB – SUMMER 2009

JULY

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1	2	3	4
5	6 Ex: 27 Endocrine System Ex. 28 (Video) Ex. 32 Blood Vessels	7 Ex: 28 Endocrine System Experiments (Video) Ex. 32 Blood Vessels Ex. 29 Hematology	8 Ex: 29 Hematology	9 Ex: 30 Heart Anatomy Dissection	10	11
12	13 Ex: 32/33A Blood Vessels Circulation Patterns Fetal Pig Dissections	14 Ex: 33A/35 CV Physiology Lymphatic System	15 Wrap-up/Study Day	16 Lab Test #1	17	18
19	20 Ex: 36 Respiratory	21 Ex: 36, 37 Respiratory	22 Ex. 37 Respiratory	23 Ex: 38 Digestive System	24	25

BIO 118: LAB – SUMMER 2009

AUGUST

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1
2	3 Ex. 40, 41 A Urinary System Urinalysis	4 Ex. 41A Urinalysis Ex. 42-43 Reproductive Systems	5 Ex. 42-43 Reproductive Systems	6 Ex. 44 Development	7	8
9	10 Wrap-Up/Study Day	11 Lab Test #3	12	13	14	15
16	17	18	19	20	21	22
23	24 FALL Classes Begin	25	26	27	28	29