CEDAR CREST COLLEGE
BIO 117/217, Human Anatomy and Physiology
Lecture Syllabus, Fall 2008

Instructor: Professor Judith Malitsch
Office: Room 23 - Miller Building**; Office Hours:** M 4-5 PM, W 1-4, R 1-2 and by appointment
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Meeting Times/Places/Important Dates:

Lectures (SCI 136): MWF 12:00-12:50,
Labs (SCI 102) T 1-4 (217); 7-10
W 4-7, 7-10
R 8-11, 1-4, 4-7, 7-10

Labor Day:	9/1- No Classes
Fall Break	10/13, 10/14
Withdrawal Date:	11/10 @ 4PM
Thanksgiving Holiday:	11/26-11/30
Classes End:	12/8
Reading Days:	12/9, 12/10
Final Exam:	TBA 12/11-12/15

From The Provost's Office: "Your obligations for this course include attendance at the final exam. Do not make travel arrangements until the final exam schedule is published; if you must make plans early, you should schedule your travel after the last final exam day."

BIO 117/217 Human Anatomy and Physiology I **4 credits (lecture and lab)**

This course is a comprehensive, medical study of the human body integrating structure and function with clinical applications and a problem-solving approach. It fulfills a *Natural Science requirement* for the Liberal Arts Curriculum and is a requirement or elective for majors in biology, neuroscience, nursing, nutrition, and dance in addition to pre-professional training and anyone else interested in an understanding of their own bodies. In addition to the assimilation of basic concepts and principles foundational to a study of the human body, the anatomy and physiology of the integumentary, skeletal, muscular, nervous and sensory systems will also be covered. Studies will include medical imaging, homeostasis, chemistry, cytology, histology, pathology, pathophysiology and pharmacology. *Prerequisites: BIO 117- None; BIO 217 - BIO 121/122; Lecture three hours, laboratory three hours.*

Our objectives in this course will be to:

1. Learn, understand, and appreciate the anatomical and physiological design of the human body.
2. Learn, understand, and appreciate the intimate relationship between structure and function.
3. Learn, understand and appreciate the interrelationships of the body systems.
4. Learn, understand and appreciate the concept of homeostasis, how it is achieved and keeps us functioning as normally as possible. Without homeostasis, our bodies experience a pathological condition.

These objectives will be accomplished in the following textbook chapters and lab exercises:

*** Textbook:** Chapters 1-15
*** Lab Book:** Exercises 1-26

Learning Outcomes/Assessment:

1. Students will demonstrate knowledge of anatomical and medical terminology and engage in direct applications to their health careers
   Assessment: Four exams with objective questions, diagrams and application essays.
2. Students will develop their critical thinking skills by relating function to structure for every aspect of the human body and asking the question, *"What is the purpose of the design"?*
   Assessment: Four exams with objective questions and application essays.
3. Students will use scientific reasoning to explore anatomical and physiological issues on the cellular level and the pathological and pharmaceutical applications arising from that cellular foundation.
   Assessment: Four exams with objective questions and application essays.
4. Students will develop the ability to communicate clearly the interrelationships among the body systems.
   Assessment: Exam essays and test diagrams.
5. Students will develop metabolic, physiological pathways.
   Assessment: Class participation, flowcharts and application essays.
6. Students will demonstrate competency in recognizing and outlining homeostatic relationships in the integumentary, skeletal, muscular and nervous systems.
   Assessment: Exam application essays.
7. Students will demonstrate application of acquired information, technological competency, information literacy and credible internet sites involving the human body.
   Assessment: Clinical Trials internet assignment.
8. Students will enhance their clinical knowledge of anatomy and physiology and personal health and wellness, especially of women's health issues.
   Assessment: Class discussion, Community/CCC seminars, workshops
9. Students will become familiar with the most recent technological advances and pharmaceutical therapies for managing pathophysiological states.
   Assessment: Handouts and four exams.
10. Students will appreciate and compare the normal anatomical and physiological design of the human body with the corresponding disease states.
    Assessment: Four exams
11. Students will relate their course knowledge in direct application to their majors, lifestyle and personal choices.
    Assessment: Class discussion, exam essays

General Course Outline:

1st Semester (BIO 117/217)	**2nd Semester (BIO 118/218)**
Introduction	Endocrine System
The Human Body	Cardiovascular System
Chemistry: Aspects of Metabolism	Lymphatic System
	Immune System
The Cell	Respiratory System
Tissues	Digestive System
The Integumentary System	Nutrition & Metabolism
The Skeletal System	Urinary System
The Muscular System	Fluids & Electrolyte Balance
The Nervous System	Reproduction
Special Senses	Development

Required Textbooks:

Marieb, Elaine N. (2007). *Human Anatomy and Physiology*, 7th Ed. San Francisco: Pearson/Benjamin Cummings.

Marieb, Elaine N., Mitchell, Susan J. (2008). *Human Anatomy and Physiology Laboratory Manual*. (Main 8th, Cat 9th Ed. Updates). San Francisco: Pearson Benjamin Cummings.

Rust, Thomas G., (1986). *A Guide to Anatomy and Physiology Lab.* 2nd Ed. Boerne, Texas: Southwest Educational Enterprises. **(BIO 117)**

Leboffe, Michael J. (2003). *A Photographic Atlas of Histology*. Englewood, CO: Morton Publishing Co. **(BIO 217)**

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

Medical Dictionary (optional)

POLICIES

Attendance:

You are expected to **attend lecture regularly**. Attendance will be documented in each lecture with a sign-in sheet. Please make an effort to be on time for class. Excessive, disturbing tardiness violates the classroom protocol code. Extended absences should be addressed through the Dean of Students office. Lecture attendance produces better grades!

Laboratory attendance is **MANDATORY** by departmental policy **(10% test grade reduction per absence; zero for missed practical tests).** Refer to your laboratory syllabus for specific policies and procedures.

Preparation for Class:
Preview the text material before class. Use the power point slides to follow the lecture along with the many diagrams. Suggested items to have for maintaining organization: (1) notebook, (2) folder for handouts, (3) colored pens/pencils (4) highlighter. *Keep lecture notes/handouts separate from lab notes/handouts.*
Lecture will be more physiologically (less anatomically) oriented. You will be responsible for material not presented in its entirety in class. You will be informed of this information.
You are also responsible for the following information:

- ✓ **Visiting www.cedarcrestonline.net for the eCompanion component of this course. All power point presentations can be found under *document sharing* and possible the *content* area. A brochure is being provided to help you navigate the website. I will use this website to communicate with you as a class.**
- ✓ Information covered in lecture
- ✓ Information brought out in discussions as noted
- ✓ Information in the text as indicated
- ✓ Information in assigned readings, articles and handouts
- ✓ Content of audiovisuals both in class and on assignment
- ✓ Anything missed as a result of tardiness and absences.

Tests/Assignment(s):
You must be present for all tests. Any adjustment/make-up must fulfill 3 requirements:
1. Notification is **on or before** the day of the exam
2. There is a documented reason as presented to the Dean of Student's office.
3. The test must be completed within one week of the absence.

Failure to comply with the above 3 requirements will result in a 'O' for the test. Make-ups may not necessarily correspond to the regular test format. They may also be scheduled during the week of Final Exams.

IF YOU ARRIVE LATE FOR A TEST, YOU FORFEIT THAT TIME IN TAKING THE TEST. Extra paper, food, cell phones and any other electronic devices and guests are not allowed during tests. Any infraction will result in a zero for the test. Any violation of *Test Etiquette*, which includes requests or comments, will be penalized.

FINAL EXAM TIMES CANNOT BE REARRANGED (Departmental Policy) UNLESS 3 OR MORE EXAMS OCCUR IN A 24 HOUR PERIOD. ANY EXCEPTION MUST BE PETITIONED AND WILL BE REVIEWED BY DEPARTMENT OF BIOLOGICAL SCIENCES. **FAILURE TO BE PRESENT FOR THE FINAL EXAM WILL RESULT IN AN AUTOMATIC ZERO FOR THE EXAM GRADE.**

All assignments must be word-processed, 12 font, Times New Roman, double-spaced, solid black ink, proper margins, collated/**stapled** in order (unless other directions are given) and on time. A printer low on ink is not an acceptable reason for a poorly printed assignment. If these prerequisites are not followed, penalties will be assessed. Late assignments (**handed in after the class period**) will be penalized 10% per day including weekends or by an indicated point system. Emailed assignments are not accepted.

Grading: You will receive a single grade for this course.
Your Grade* = 50% of your lecture grade+ 50% of your laboratory grade

*** Nuclear Medicine Nursing, Nutrition and the LAC require a minimum grade of 'C'. A minimum grade of C- is acceptable for majors in the Department of Biological Sciences**

1. **Lecture Component: Your lecture grade is an average of the following:**
   4 major lecture tests (not cumulative); Test #4 will occur during the final exam period. A test format document will precede each test.
   Quizzes averaging as a **lecture test grade**. All quizzes will occur on Wednesdays immediately at the beginning of class. Quiz dates and information are posted on eCompanion.
   Comprehensive Final Exam (Comprehensive exception with an A- lecture average)
   Clinical Trials Assignment: **= 1 test grade. DUE DATE: September 29, 2008.**
   Bonus Seminars/Opportunities will count as extra points added directly to your lecture grade. These Opportunities can be self designed, notifying me of your intent or attended through the CCC community or the Department of Biological Sciences. Points awarded will depend upon the opportunity, generally in the range of 1-3 points. **A maximum of 5 bonus points are allowed**. *Bonus points should never be substituted for course knowledge, you must continue to prepare for each test.*

2. **Laboratory Component: Your lab grade is an average of the following:**
   3 non-cumulative lab practical exams per laboratory instructions; 217 will have additional grades.

3. **Grading Scale: A-F (with +,-)***

A	93-100	C+	77-79
A-	90-92	C	73-76**
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	D	60-66
		F	Below 60

*Attendance and participation always considered, especially in borderline cases
**A minimum of 73% is required for majors in nuclear medicine, nursing, nutrition, and the LAC. Only one course overall is allowed to be repeated in the nursing curriculum.

Cedar Crest Policies: 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 loss of bonus points, removal from class and be formally addressed by the appropriate individuals: Dr. John Cigliano (Chair), Dr. Carol Pulham (Provost), Dr. Denise O'Neill (Dean of Students), Christine Nowik (Director of the Advising Center), and the Honor and Judicial Board. There will be zero tolerance 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. Based on the severity of the offense, students will be required to the redo an assignment or earn an F for the assignment. 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 two weeks of class. Students with disabilities who wish to request accommodations should contact the advising center.

Need to Know:

1. All students must have CCC email for course communication and it is your responsibility to check it regularly.

2. Promptness, respect and courtesy are expected in all aspects of the course.

3. Laboratory coats and closed-toe shoes are required in A&P laboratories. Food and beverages (including anything bottled) are not permitted in the laboratory. Please report all breakage to your lab professor.

   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.

4. Please silence all cell phones during class unless there is an impending situation. Guests, food, drinks, wrappers, cell phones, palm pilots, blackberries or any other electronic devices are not allowed during tests. It is highly recommended that students DO NOT sit close to each other during tests.

5. To insure greater security and safety for students at night who study in the Science Center:
   A. Always carry your college ID.
   B. Make an effort to come with a study partner.
   C. Notify Campus Security (dial 'O' on any campus phone) for any help or assistance.
   D. Use the "escort service" (Campus Security) if needed.

   The SC Building hours are: Sunday thru Friday 7 AM -10 PM, Saturday 7 AM - 6 PM

6. **Laura Christman** is the IA for the fall semester. Taking advantage of her knowledge and help will insure success. Tutors (free!!) are available through Academic Services, Curtis 109, and Ext. 3484. Sign up for a tutor ASAP! For your benefit, reference books are located in SCI 102. Feel free to use them but please do not remove them.

7. As you study, remember to organize, summarize, create the big picture and recite! Make sure you know the pathways! Write out the pathways- drawing helps! Study and review at every opportunity. **If you don't understand, ASK. When in doubt, ASK**.

Best Wishes for a Successful Semester in A&P!
-Mrs. Malitsch

BIO 117/217
HUMAN ANATOMY & PHYSIOLOGY I
LECTURE OUTLINE - FALL 2008

Test Dates: Friday, September 19
Friday, October 17
Friday, November 14
Final Exam: TBA

Weeks	**Topics**	**Text Chapters**
Aug. 25, Sept. 3, 8	Introduction to the Human Body Structural Organization/Life Processes Medical Imaging Homeostasis	1/ Lots of Notes
Sept. 15	A&P Chemistry, pH Imbalances & Metabolism	2, (25, 27 as referenced)
Sept. 19	**TEST I**	
Sept. 22	Cell Structure, Function Membrane Transport Protein Synthesis	3
Sept. 29	Histology Applications Integumentary System Applications	4, 5, Notes
Oct. 6	Cancer	4, 5, Notes
Oct. 15, 20	Skeletal System: Organization, Function, Calcium Homeostasis Bone Formation, Growth, Change	6, 7, 8
Oct. 17	**TEST II**	
Oct. 27	Osteoporosis/Clinical Applications Muscular System: Architecture, Function	**6**,7,8 **9**,10

Weeks (Test Dates)	**Topics**	**Text Chapters**
Nov. 3	Muscular Contraction, Metabolism, Fiber Types; Nervous System connection	10, (11, 12 as referenced)
Nov. 10	Nervous System Organization Autonomic Nervous System Nervous Tissue	11 – 14 as referenced
Nov. 14	**TEST III**	
Nov. 17	Nerve Impulse Transmission Synapses & Neurotransmitters	11
Nov. 24	CNS and PNS	12, 13
Dec. 1, 8	Nervous System Wrap-Up *Special Senses*	11-14 *15*
Dec. 11- 15 TBA	**Lecture Test #4 and Comprehensive Final Exam**	

This outline is a guideline for the order of topics and is not carved in stone. Tests, however, will occur on the designated dates. Information for the indicated test dates is not pre-determined but will depend upon how much we have covered. Since this course is a requirement for healthcare professions or a highly recommended elective for pre-professional programs, we must assimilate a certain amount of information. However, I do encourage a free exchange of questions and comments. Topics will include discussions of medical terminology, medical testing, homeostasis, clinical applications, pathological conditions and pharmaceuticals.