

<p style="text-align: center;"><b>Biology 122 – Human Anatomy and Physiology II</b> <b>Course Syllabus</b> <b>Spring 2005</b></p>
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**Faculty Information:** Dr. Nitya Jacob, *Office:* Room 104, Pierce Hall; *Phone:* 770-784-8346  
*Office Hours:* T 9:30-10:30 AM and Th 3:30-4:30 PM, or by appointment  
*Email:* njacob@learnlink.emory.edu

**Lecture:** MWF 11:45 AM - 12:35 PM, Room 101, Pierce Hall

**Laboratory:** Monday 2:00-5:00 PM, Room 123, Pierce Hall

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**Required Textbooks:** **1)** *Anatomy and Physiology*, by F. H. Martini. 2005. First Edition. Benjamin/Cummings Publishing Co., Inc.

**2)** Lab Text: *Human Anatomy and Physiology Lab Manual*, Cat version, by Elaine N. Marieb. 2005. Eighth edition. Benjamin/Cummings Publishing Co., Inc.

**Required lab tools:** Dissection Kit. Available in the bookstore.

**Optional Lab Text:** *A Guide to Anatomy and Physiology Lab* by T. G. Rust. Southwest Educational Ent. **Highly recommended.**

**Course objectives:** In Biology 122 you will continue to learn about the physical layout and the mechanisms of the human body – as you did in Biology 121, the prerequisite to this course. We will study the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems in detail. These seven organ systems will be examined at the microscopic and macroscopic levels, paying attention to the importance of each system to the body as a whole. You will be able to apply your knowledge by studying the anatomical and physiological basis of human diseases related to each organ system. In the laboratory, you will have the opportunity to have hands-on experience by observing specimens and conducting physiological analyses. You will learn techniques such as EKG recording and analysis and blood pressure measurement. Anatomical and physiological terms applicable to each organ system will be emphasized.

**Biology 122 - Lecture Schedule, Spring 2005****Dr. Nitya Jacob**

Date	Topic	Assigned Reading
W, Jan 19	Introduction to the Endocrine system	Chapter 16
F, Jan 21	Pituitary gland	Chapter 16
M, Jan 24	Thyroid and parathyroid	Chapter 16
W, Jan 26	Adrenal and pancreas	Chapter 16
F, Jan 28	Endocrine disorders	Chapter 16
M, Jan 31	Blood – composition and production	Chapter 17
W, Feb 2	Blood types and blood disorders	Chapter 17
F, Feb 4	Heart – Anatomy & Conduction	Chapter 18
M, Feb 7	Heart – Physiology & EKG	Chapter 18
W, Feb 9	Heart – Problems	Chapter 18
<b>Thurs, Feb 10</b>	<b>EXAM I – 8:00-9:30AM, covers through heart physiology</b>	
F, Feb 11	Heart – Eliminating risk factors	Chapter 18
M, Feb 14	Review & Catch up	
W, Feb 16	Blood vessels - organization	Chapter 19
F, Feb 18	Blood vessels - filtration and blood pressure	Chapter 19
M, Feb 21	Immune System – organs	Chapter 20
W, Feb 23	Non-specific and specific immunity	Chapter 20
F, Feb 25	AIDS and other immune disorders	Chapter 20
M, Feb. 28	Respiratory System - Introduction <i>Case study is due</i>	Chapter 21
W, Mar 2	Upper respiratory system	Chapter 21
F, Mar 4	Lower respiratory system	Chapter 21
M, Mar 7	Gas exchange	Chapter 21
W, Mar 9	Review & Catch up	
<b>Thurs, Mar 10</b>	<b>EXAM II – 8:00-9:30AM, covers through respiratory system</b>	
F, Mar 11	Digestive System - organization	Chapter 22
<b>Mar 14 –18</b>	<b>SPRING BREAK!</b>	
M, Mar 21	Pharynx, esophagus and stomach <i>Case study is due</i>	Chapter 22
W, Mar 23	Small intestine, pancreas and liver	Chapter 22
F, Mar 25	Large intestine, digestive disorders	Chapter 22

**Biology 122 - Lecture Schedule (continued)**

Date	Topic	Assigned Reading
M, Mar 28	Metabolism – general overview	Chapter 23
W, Mar 30	Review & Catch up	
F, Apr 1	Urinary System - overview	Chapter 24
M, Apr 4	Urinary System – kidneys	Chapter 24
W, Apr 6	Urinary System - physiology	Chapter 24
F, Apr 8	Urinary System - physiology <i>Case study is due</i>	Chapter 24
M, Apr 11	Urinary System – Disorders	Chapter 24
W, Apr 13	Reproductive system - overview	Chapter 26
<b>Thurs, Apr 14</b>	<b>EXAM III – 8:00-9:30AM, covers through digestive system</b>	
F, Apr 15	Male and female anatomy	Chapter 26
M, Apr 18	Sex hormone cycles	Chapter 26
W, Apr 20	Sex and sexual response	Chapter 26
F, Apr 22	Disorders of Reproductive System	Chapter 26
M, Apr 25	Conception	Chapter 27
W, Apr 27	Pregnancy and development	Chapter 27
F, Apr 29	Development and birth <i>Case study is due</i>	Chapter 27
M, May 2	Wrap-up	

**FINAL EXAMINATION – Friday, May 6, 9:00AM-12:00PM, comprehensive**

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***Syllabus continues on next page***

**Biology 122 - Laboratory Schedule, Spring 2005****Dr. Nitya Jacob**

<u>Date</u>	<u>Topic</u>	<u>Lab Exercise/Reading</u>
Jan 24	Endocrine system (bring Rust book)	Exercises 27 28A: p.305-306
Jan 31	Blood	Exercise 29A
Feb 7	Heart & EKG	Exercises 30, 31, 33A
Feb 14	Blood Vessels (dissection kit)	Exercise 32 Dissection Exercise #4
Feb 21	<b>LAB PRACTICAL #1</b>	
Feb 28	Blood Vessels (dissection kit)	Dissection Exercise #4
Mar 7	Respiratory System (dissection kit)	Exercise 36, 37A Dissection exercise #6
<b>Mar 14</b>	<b>SPRING BREAK</b>	
Mar 21	Review for practical	
<b>Mar 28</b>	<b>LAB PRACTICAL #2</b>	
Apr 4	Digestive System (dissection kit)	Exercise 38, 39A Dissection exercise #7
Apr 11	Urinary System (dissection kit)	Exercise 40, 41A
Apr 18	Trip to Emory Cadaver Lab	
Apr 25	Reproduction & Development	Exercise 42,43, 44 Dissection exercise #9
<b>May 2</b>	<b>LAB PRACTICAL #3</b>	

**Please bring all texts (Martini, Marieb and Rust) to the laboratory. We will use them for photographs and illustrations while observing specimens.**

## GUIDE TO BIOLOGY 122

Please read this syllabus carefully and please be sure to clarify any doubts. This handout is your map to Biology 122! Please pay full attention to the information contained in this syllabus. Information in this syllabus is also subject to change according to my discretion, so please pay attention to any changes made during the semester. Check the learnlink class conference regularly for announcements and changes.

**Honor Code:** All examinations and work for credit in this course come under the regulations of the Honor Code. Please uphold the Honor Code and include your signature on your work as your pledge.

**Attendance:** Attached to this syllabus is the Biology Department Absence Policy. Please read through this handout carefully for conditions on absences. Unexcused absences, tardiness or a failure to follow the procedures outlined in the handout will result in a reduction in your grade. Any questions about absences should be raised immediately. Attendance and tardiness is taken seriously.

**Examinations:** There will be three lecture exams, held on the dates specified in the syllabus. Lecture exams cover the topics indicated, which include textbook readings, lecture notes and concepts learned in lab. The final exam is cumulative. There are also three laboratory exams, which will involve recognition of structures and functions of materials encountered in the lab.

**Dissection:** Since this is an anatomy course, lab exercises will involve dissection of various materials. You will get to reunite with your friend, the cat. We will be using the cats to study cardiovascular, respiratory, digestive and reproductive systems. Please come prepared to lab with your dissection kit.

**Written assignments:** This semester your written assignments will be 4 case study reports. A case study is a sample practical situation, such as a medical case. You will have to answer the questions that accompany the case study. You may work on solving the case study with a partner, but case study reports must be written up individually. You will have to consult reference books such as your text, lab book or the medical books available in the lab and/or library. Due dates are Feb 28, Mar 21, Apr 8 and Apr 29.

**Class Participation and LearnLink Class Conference::** Biology 122 is an interactive course. Your curiosity about the subject is demonstrated by the questions you ask in the classroom and on the conference. You are already familiar with the class conference for Biology 121/122 on LearnLink. This semester I will be giving credit for class participation and active use of the conference. If you are curious about a particular topic during lecture, ask questions in class or post them on the conference. I encourage

you to post information about any interesting news articles or web postings regarding anatomy and physiology topics. Please be professional and respectful in your comments. Handouts for lab will be posted on the conference as well.

**Laboratory.** The laboratory exercises require learning and recognizing anatomical structures. Please be sure to ask for assistance. Jenna Walker will be helping out as the TA in lab. To be successful on the lab exams, I strongly recommend that you make a habit of returning to the lab a second time during each week. Review the specimens and slides on a regular basis so that you are well acquainted with them at the time of the lab practical. Aside from the scheduled lab period on Monday, the lab is open T, Th, and F from 8:30AM –5:00 PM. Open labs will be offered before the lab exams.

**Trip to Emory.** Towards the end of the semester we will take a field trip to visit the cadaver lab at Emory. This will give you a chance to review what you have learned between the two courses, this time observing an actual human body. Please mark the date on your schedule. The lab will require extra time for travel, so please be prepared to make the adjustment in your schedule. All students must travel together in the college van.

**Evaluation:** The point distribution given below will be used to evaluate your performance in Biology 122.

Lecture Exams	300 points
Lab Practical Exams	150 points
Written assignments	40 points
Class Participation	20 points
Final Exam	150 points
Total	<hr/> 660 points

Your letter grade will be determined on the standard scale of:

90-100 %	A
80-89 %	B
70-79 %	C
60-69 %	D
<60	F

Plus and minus grades will be given.

*Reminder:* A minimum grade of C- in this course is required for pre-nursing students.