

Anatomy and Physiology II BI 13201

Summer Session 09; Lecture Schedule

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Meeting Times: Lecture: M, T, W, TH: 8:30am – 11:00am

Lab: M, T, W: 11:00am – 1:30pm

REQUIRED MATERIAL:

NOTE: All books must be available for class use no later than July 22. NO EXCEPTIONS to this, even if you ordered books on-line, you need to have all of the following texts for class July 22.

- *Seeley's Principles of Anatomy and Physiology*; Tate, Philip; McGraw Hill, 2009.
- *Anatomy and Physiology Laboratory Text, Intermediate Version, The Cat*; 9th Edition; Marieb, Elaine; Benjamin Cummings, 2007.

Course Description:

A continuation of Anatomy & Physiology I and Lab I in both lectures and lab work, which concentrates on the endocrine, circulatory, excretory, digestive, respiratory, and reproductive systems. In addition, lectures cover the subjects of fluid regulation and metabolism.

Course Lecture Competencies:

In this course, the successful *student will learn and be able to demonstrate through observation, manipulation, quizzes, exams, and laboratory work:*

1. that the human body as a living unit consists of contiguous fluid compartments separated by selectively permeable barriers.
2. the components of blood plasma by their name, chemical class, and function and how to identify the formed elements by their origin, appearance, and functions.
3. how to discuss the control of the rate of production of new erythrocytes and as well as how old ones are destroyed.
4. how to expound upon ways in which the circulatory system stems the sudden loss of blood.

5. how to describe in detail the anatomy and physiology of the human heart, and how intrinsic and extrinsic factors control its operation.
6. the various types of blood vessels with their distinctive characteristics, and the names of the main blood vessels and subsystems of peripheral circulation.
7. the manner of control of circulatory patterns, blood pressure, and blood volume as the body undergoes a variety of human experiences.
8. the details of the fetal and post-fetal circulatory systems.
9. the arrangement of lymph vessels starting with the capillaries and ending with the deposition of lymph in the subclavian veins.
10. why the structure and function of the lymph nodes, vessels, and ducts, and the spleen and thymus are inter-related.
11. how the human body defends itself against non-specific trauma.
12. the presently accepted theory to explain what specific or adaptive immunity is, and demonstrate how the process succeeds and sometimes fails.
13. the names, locations, descriptions, and interpretations of the organs and processes of the respiratory system.
14. the several meanings for the term, "respiration".
15. the several functions of the nasal and oral cavities, the pharynx, and the larynx.
16. how air enters and leaves the lungs and how the respiratory gases enter and leave the blood stream.
17. how the breathing rate and intensity of breathing is controlled.
18. how ingested food is converted to soluble nutrients as the food passes along the digestive tract.
19. how nutrients and water are gradually absorbed , and how they pass to the liver and beyond.
20. the names locations, descriptions and functions of the organs of the urinary system.
21. the roles of the micro-structures of the kidney and the hormones for water conservation and blood pressure homeostasis.
22. the explanation for the body's method for avoiding acidosis and alkalosis.
23. about human procreation, including descriptions of the structure and role of the sex organs.
24. how the female hormonal, ovarian, and uterine cycles are integrated.
25. the development of human organs.

GRADING:

Exam I = 15 points

Exam II = 20 points

Exam III = 25 points

Homework 1 = 10 points

Homework 2 = 10 points

Homework 3 = 10 points

Lecture Quizzes = 10 points

Exams are made up of a combination of multiple choice, matching, true/false, short answer and essay. They are GIVEN IN LECTURE, at the BEGINNING OF LECTURE, so DON'T BE LATE!!! Homework assignments are due the day of the exam, before the exam begins or will not be accepted. Exams and homework are to

be done BY YOURSELF. THEY ARE NOT CONSIDERED GROUP WORK. Working together or copying homework is considered cheating and will be punished as such!

INSTRUCTOR PHILOSOPHY

- **NO EXCEPTIONS** to the above grading system.
- **If you have any conflicts with exam dates, homework dates.... You must tell the instructor as soon as possible or at least 24 hours in advance. No communication with the instructor via e-mail, phone, or face-to-face results in a zero. Excuses must be legitimate which is up to the instructors decision.**
- **Missed exams are not allowed to be made up. All Exams are to be taken. This is not an excuse to just miss an exam! THE FINAL MUST BE TAKEN!!**
- **Cheating will not be tolerated whether it is on an exam, homework, or lab report. If cheating results, you will receive a zero and be asked to leave the class.**
- **Communication is key; not only with me, but also with your classmates. Form a study group it is to your benefit.**
- **You are expected to attend all Lecture meetings. Exams will be given at the beginning of Lecture, and once they have started you will not be able to take them.**
- **DO NOT BE LATE FOR LECTURE!!!! I take this very seriously because it disrupts everyone. LEAVE EARLY!! If you are late on a regular basis I will ask that you withdraw and take the class at a later time. Being late once or twice is understandable and there will be chairs reserved in the back of the class for those who are a bit late.**
- **NO FOOD, or BEVERAGES are allowed in the class. CELL PHONES and i-Pods must be turned off!**
- **The Boston College Student Handbook clearly states the code of conduct for all students on this campus. Please review it if there is any doubt about what is acceptable in the classroom.**
- **This is a VERY difficult course. You are required to do a large majority of the work yourself. Therefore you have to be disciplined enough to keep up with the assigned reading and exercises on a weekly basis. If you get behind you are setting yourself up for failure. To be successful in this course you have to put in a lot of time, not just in lecture, but reading and studying on your own and in groups!**

METHOD OF INSTRUCTION:

Your instructor will provide you with the information in the form of:

1. lecture content information
2. discussions
3. videos
4. homework
5. Assigned reading (pay special attention to selected figures and tables)

Students are encouraged to form study groups, and ask questions to be answered by the professor and other students in the class.

Tentative Lecture Schedule

Week 1: Chapter 17 – The Endocrine System; Chapter 18 – The Circulatory System: Blood; Chapter 19 – The Circulatory System: The Heart;

July 22nd QUIZ # 1

July 23rd Exam I and Homework 1 due

Week 2: Chapter 20 – Blood Vessels and Circulation; Chapter 22 – The Respiratory System; Chapter 25 – The Digestive System

July 29th QUIZ #2

July 33rd Exam II and Homework 2 due

Week 3: Chapter 23 – The Urinary System; Chapter 27 and 28 – The Reproductive System

Aug 5th QUIZ #3

Aug 6th Exam III and Homework 3 due