

Anatomy and Physiology I BI 13001

Summer Session 08; 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 1st. NO EXCEPTIONS to this, even if you ordered books on-line, you need to have all of the following texts for class July 1st.

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

Course Description:

A survey of the human body that stresses biological principles, chemical interpretations, and physiological applications at the various levels of anatomical organization. Introduction to correlating the structure and function of the human body, treating the integumentary, skeletal, muscular and endocrine systems are discussed in lectures. Laboratory is highly recommended. Satisfies nursing and other health-care requirements.

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. the meanings of the title of the course in terms of general biology.
2. the levels of organization of the body from chemical to organ system and show how the different levels influence each other.
3. the relationship of the chief biochemicals of the human body to their functions at various levels of organization.
4. how various types of materials enter and leave the human cell..
5. the role of the human integumentary system and its organs.

6. the cellular makeup of the epidermis, the dermis, and the hypodermis and their roles.
7. the organs and functions of the human skeletal system.
8. the significance of some aspects of the histology of bone and cartilage.
9. the development of the bones from before birth well into maturity.
10. the electrolyte composition of intracellular and extra-cellular fluid.
11. what a cellular electric potential is, and what are local potentials, resting potentials, action potentials, and hyper-potentials.
12. the histological characteristics and locations of the three categories of muscle tissues, with special emphasis on the skeletal.
13. how muscles contract and relax, from stimulation through innervation.
14. what are the maintenance nutritional demands of muscle tissue.
15. the parts and functions of the chief kinds of neurons.
16. the contributions of different kinds of glial cells to the general operation of the nervous system.
17. how to trace an action potential in a reflex arc from stimulus receptor to effector organ.
18. the location, parts, and functions of the central nervous system.
19. how to distinguish among the afferent, somatic motor, and autonomic portions of the peripheral nervous system.
20. the origin, functions, and reabsorption of cerebrospinal fluid.
21. how to distinguish between exocrine and endocrine glands, and demonstrate how endocrine organs control and are controlled by other organs and systems of the human body

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 instructor's 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 1 – Introduction; Chapter 2 – Chemistry; Chapter 3 - Cell Function; Chapter 4 - Tissues; Chapter 5 – The Integumentary System

July 1st QUIZ # 1

July 3rd Exam I and Homework 1 due

Week 2: Chapter 6 – Bones and Skeletal Tissue; Chapter 7 – The Skeleton; Chapter 8 – Joints; Chapter 9 – Muscles and Muscle Tissue

July 8th QUIZ #2

July 10th Exam II and Homework 2 due

Week 3: Chapter 10 – The Muscular System; Chapter 11 – Fundamentals of the Nervous System and Nervous Tissue; Chapter 12 – The Central Nervous System; Chapter 13 – The Peripheral Nervous System; Chapter 14 – The Autonomic Nervous System; Chapter 16 – The Special Senses;

July 15th QUIZ #3

July 17th Exam III and Homework 3 due