

ANATOMY & PHYSIOLOGY I

Professor: Dr.Priftakis

Email: DPriftakis@citytech.cuny.edu

Course title: Anatomy & Physiology I (Lecture and Laboratory)

Course code: BIO2311 and BIO2311L

Credit hours: 4 credit hours

Prerequisite: BIO1101, or equivalent, and CUNY certification in reading & writing. **Corequisite:** BIO2311L

Required materials:

Lecture: Online A&P Textbook - Openstax.org

Laboratory: Lab Manual - *Laboratory Manual (Fetal Pig)*, 12th ed., by E. Marieb; Benjamin Cummings Pub., Lab coat, nitrile gloves, dissecting instruments

Course technology requirements: CityTech email account and OpenLab account

Course Description: This is the first part of a two semester course. It covers the anatomy and physiology of the cell, tissues, skeletal, muscular and nervous systems.

Course-Based Learning Outcomes:

- Describe the biological levels of organization of multicellular organisms
- Define and explain basic medical terminology as related to anatomy and physiology
- Understand, identify, and describe the various regions, sections, positions and directions of the body

- Identify and describe the major body cavities and their subdivisions
- Understand and describe the anatomy and physiology of the cell, tissues, skeletal, muscular, nervous, and integumentary system
- Define and describe the mechanisms involved in homeostatic regulation of the body
- Develop basic laboratory techniques relevant to the field of physiology

City Tech General Education Common Core Learning Outcomes:

- Value knowledge and learning
- Use the sciences as a forum for the study of values, ethical principles, and the physical world
- Engage in an in-depth, focused, and sustained program of study
- Employ scientific reasoning and logical thinking
- Communicate in diverse settings and groups using written (both reading and writing), oral (both speaking and listening), and visual means
- Derive meaning from experience as well as gather information from observation
- Understand and employ both quantitative and qualitative analysis to describe and solve problems both independently and cooperatively
- Understand and navigate systems
- Demonstrate intellectual honesty and personal responsibility

LECTURE SCHEDULE

- WEEK 1: Chapter 1 - An Introduction to the Human Body
- WEEK 2: Chapter 2 - The Chemical Level of Organization
- WEEK 3: Chapter 3 - The Cellular Level of Organization
- WEEK 4: Chapter 4 - The Tissue Level of Organization
- WEEK 5: Chapter 5 - The Integumentary System

WEEK 6: Chapter 6 - Bone Tissue and the Skeletal System
WEEK 7: Chapter 7 - Axial Skeleton
WEEK 8: Chapter 8 - The Appendicular Skeleton
WEEK 9: Chapter 9 - Joints
WEEK 10: Chapter 10 - Muscle Tissue
WEEK 11: Chapter 11 - The Muscular System
WEEK 12: Chapter 12 - The Nervous System and Nervous Tissue
WEEK 13: Chapter 13 - Anatomy of the Nervous System
WEEK 14: Chapter 14 - The Somatic Nervous System . .
WEEK 15: Chapter 15 - The Autonomic Nervous System

LABORATORY SCHEDULE

WEEK 1: Organization of the Human Body: Review Metric system; The Language of Anatomy Anatomic Position; Body Orientation and Direction; Body Planes and Sections; Surface Anatomy; Body Cavities; Serous Membranes; Organ Systems Overview

WEEK 2: The Microscope and Its Uses

WEEK 3: The Skeletal System I - Bone Classification and Structure, Bone Markings and Classification, Gross Anatomy of a Typical Long Bone, Microscopic Structure of Compound Bone, Chemical Composition of Bone, The Appendicular Skeleton

WEEK 4: The Skeletal System II - The Axial Skeleton, The Fetal Skull

WEEK 5: The Skeletal System III - Articulations, Body Movements, Review for Bone Practicum

WEEK 6: Cell Structure and Division

WEEK 7: Transport Mechanisms - Passive Transport, Diffusion, Filtration

WEEK 8: Basic Tissues of the Body

WEEK 9: Histology of Muscle and Nerve Histology of Muscle and Nerve Nervous Tissue, Neuron Anatomy;. Classification; Structure of a nerve

WEEK 10: Organization and Activity of Muscle Tissue
Microscopic Anatomy, Organization and Classification of Skeletal

Muscle, Use of physiograph and preparation of frog muscle; drug action, Use the Physio-EX CD.

WEEK 11: The Nervous System - The Spinal Cord and Nerves, Use the Physio-EX CD, Human Reflexes

WEEK 12: General Sensation, Sensory Receptors, Distribution and Localization of Receptors, Adaptation to Touch and Temp.

WEEK 13: The Brain and Cranial Nerves - Gross Anatomy, Dissection of the Sheep Brain

WEEK 14: Special Senses – Vision, Anatomy of the Eye, Dissection of Cow (sheep) eye

WEEK 15: Special Senses - Hearing and Equilibrium, Anatomy of the Ear, Taste and Olfaction

CLASSROOM POLICIES FOR LECTURE AND LAB

- Be on time
- NO TEST MAKE-UPS! A missed exam = 0%
- No food in classroom or lab
- VERY STRICT NO CELL PHONE POLICY!!! Cell phones should be switched off or on silent (NOT vibrate!)

ADDITIONAL POLICIES FOR LAB ONLY: LAB COATS ARE MANDATORY TO ENTER THE CLASSROOM. NO LAB COAT=NO ENTRY INTO LAB=ABSENCE!

GRADING POLICY

Lecture (60%):

- 4 exams (lowest dropped) = 25% each
- Class presentation = 25%
- Grade is adjusted based on tardiness. If student has 1 more absence than the maximum allowed, grade will be dropped half a letter grade. If student has 2 more absences than the maximum allowed, grade will be dropped a full letter grade. After that, a WU (Unofficial Withdrawal) will be assigned.
- 2 LATENESSES = 1 ABSENCE
- Cell phone use = 5 points off test grades (cannot be dropped)

Lab (40%):

- 4 written tests (lowest dropped) = 20% each
- 2 lab practicals = 20% each
- Homework assignments are mandatory. If not handed in at the beginning of class and ON TIME, points will be deducted. After 3 missed assignments, 2 points will be deducted off of final grade.
- Grade is adjusted based on tardiness. If student has 1 more absence than the maximum allowed, grade will be dropped half a letter grade. If student has 2 more absences than the maximum allowed, grade will be dropped a full letter grade. After that, a WU (Unofficial Withdrawal) will be assigned.
- 2 LATENESSES = 1 ABSENCE
- Cell phone use = 5 points off highest test grades (cannot be dropped)

COLLEGE POLICY ON ABSENCE/LATENESS

A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester as follows:

Class Meets	Allowable Absence
1 time/week	2 classes
2 times/week	3 classes
3 times/week	4 classes

Students are responsible for making up any missed work on days that they are absent. If a student's class absences exceeds this limit the instructor will alert the student that a grade of WU may be assigned. Unless otherwise indicated by the instructor, two times late is treated as one absence.

ACADEMIC INTEGRITY POLICY STATEMENT

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for

providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

LETTER GRADE WITH PERCENTAGE POINT CORRELATION

- A: 93-100**
- A-: 90-92.9**
- B+: 87-89.9**
- B: 83-86.9**
- B-: 80-82.9**
- C+: 77-79.9**
- C: 70-76.9**
- D: 60-69.9**
- F: Below 60**