

**NORTHEASTERN TECHNICAL COLLEGE
COURSE OUTLINE**

COURSE: Biology	PREFIX NO. BIO 210	EFFECTIVE DATE August 2010	NEXT REVIEW DATE August 2011		
TITLE: Anatomy and Physiology I		CREDITS 4	CONTACTS		
			CLASS	LAB	TOTAL
			3	3	4

PREREQUISITES: BIO 112, 101 with a "C" or better or high school biology within ten years

DESCRIPTION: This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied.

TEXTBOOK(S) OR ALTERNATIVE: Hole's Human Anatomy and Physiology by Shier, Butler, and Lewis, 12th edition, McGraw-Hill. 2009.

LAB MANUAL: Photomanual and Dissection Guide to the Cat, by Bohensky; Handouts used in lab will be provided by the instructor electronically or by distribution in class.

MATERIALS (specifying those to be purchased by student): Latex gloves are recommended for lab and should be furnished by the student. Students may bring a lab coat if they wish. The dissection kits, safety glasses, and animals will be supplied by NETC.

COLLATERAL READING: Students may be asked to review periodical or online resources.

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):

Academic Dishonesty: As stated in the Policy and Procedures Manual, any student that plagiarizes or is caught cheating on any assessment in a course will receive a zero for that assignment. The documentation will be collected and reported to the Dean of Student Services.

Attendance: According to college policy, a student may miss 20% of the scheduled class periods. When a student exceeds this limit, he or she will be dropped for excessive absences, with the resulting grade of "F". If the student initiates the withdrawal before midterm, a grade of "W" will be used. After midterm, the grade of "W" will only be used for students who are passing the course; if a student who is not passing initiates a drop after midterm, he or she will receive a grade of "WF".

Tardies: A student is considered tardy if he or she arrives for class after the scheduled time. Three tardies constitute one hour of absence.

Electronic Devices in the Classroom: To minimize classroom disruptions and to protect the integrity of testing, activated electronic communication devices such as pagers, beepers, and telephones are not permitted in classrooms at NETC. The only exception is for on-call emergency personnel (police, fire, EMS); these students are required to notify the instructor of

their need for such devices with documentation verifying employment. This information must be provided at the beginning of the term and at the beginning of each applicable class session.

Student ID: It is mandatory that every student wear his or her student ID at all times. Students will be dismissed from class if not wearing their ID. The student may get his/her ID and return to class before the mid-point of the class. If the student cannot get his/her ID and return to class by the midpoint, the instructor will record the absence.

DISABILITIES STATEMENT:

Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See *College Catalog*)

RESOURCES (A-V, persons, tools/equipment): The following equipment may be used in lecture or lab settings: overhead projector, TV/VCR/DVD, computer, XGA or LCD projector, microscopes, various biological lab equipment as specified in individual labs.

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

Topics may be covered by use of lecture, lab exercises, filmstrips, videos, or computer simulations.

<u>CHAPTER</u>	<u>TOPIC</u>
1	Introduction to Anatomy & Physiology (1 WEEK)
2	Chemical Basis of Life (2 WEEKS)
3	Cells (2 WEEKS)
5	Tissues (2½ WEEKS)
6	Skin and Integumentary System (2 WEEKS)
7	Skeletal System (1½ WEEKS)
8	Joints (1 WEEK)
9	Muscular System (1½ WEEKS)
10	Nervous System I (1 WEEK)
11	Nervous System II (½ WEEK)

Each student will receive a copy of the syllabus with a weekly calendar and testing information on the first day of class.

TENTATIVE TOPICAL LAB SCHEDULE:

Orientation to Websites and/or Library Orientation

Lab Safety video & contract; Scientific Method Lab

Body Organization & Anatomical Terminology; DNA Extraction

Possibly Biochemistry lab

Microscopy & Cells

Diffusion & Osmosis

Possibly Genetics or Cell Division

Introduction to the Skeleton & the Skull

Axial Skeleton (Vertebral Column & Thoracic Cage)

Appendicular Skeleton

Introduction to Cat

Superficial Muscles of Head, Torso & Extremities

Deep Muscles

Cranial Nerves & Brain

Eye & Ear

COURSE OBJECTIVES:

1. The student will be able to use the scientific method to solve problems.
2. Name the primary organs and functions of each system of the body as part of an introduction to anatomy and physiology.
3. Describe the primary inorganic and organic substances in the body and their uses.
4. Describe the parts and functions of animal cell organelles.
5. Describe the appearance and major functions of the body tissue groups.
6. Describe the organs, functions, and selected clinical conditions of the
 - A. integumentary system
 - B. skeletal system, including joints
 - C. muscular system
7. The student will use basic biological lab equipment, such as scalpels, glassware, pipettes, etc. for various lab experiments.

COLLEGE WIDE COMPETENCIES AND ASSESSMENT:

Reinforcement of college wide competencies will occur in the areas of communication, information, mathematical/computational, and interpersonal skills.

1. Collect information needed for a given application.
2. Analyze information.
3. Evaluate information to determine usefulness.
4. Apply knowledge to make a decision and solve problems.

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES: Lectures, laboratory work, videos, and slides on topics in anatomy & physiology may be used. Science projects and reports may also be used to supplement instruction.

EVALUATIVE METHODS TO APPRAISE OBJECTIVES: Course assignments may include tests, lab reports, and other activities as outlined in the syllabus or by handouts. A comprehensive final exam will be given. No lecture test grades will be dropped. Practical tests, objective tests, and/or lab reports may be used in lab as assessments, with one lab test/assignment being dropped before final averaging.

CLASS AVERAGE: The final average will be based on the following:

Lecture tests average	= 50%
Lab average	= 25%
Comprehensive final exam	= 20%
Projects, homework or online activities	= 5%

GRADING SCALE:

92 - 100	= A
83 - 91	= B
74 - 82	= C
65 - 73	= D
BELOW 65	= F