

**NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE
COURSE SYLLABUS**

Course Title: PRINCIPLES OF THE HUMAN BODY LAB **Course #:** BIO* 110L

Course Description: 1 semester hours (2 lab hours)

The laboratory to accompany BIO 110 Principles of the Human Body lecture. Laboratory activities supplement lecture content. Principles of animal cells and human body systems will be explored. This course cannot be used as the prerequisite for BIO 211 or BIO 235.

Pre-requisite/Co-requisite: ENG* 063 and ENG*073 or ENG 093 or satisfactory scores on the placement test. Computer skills, including email, word processing, and web navigation **are critical** for this course.

Goals:

The goal of this course is to provide students with

- An appreciation for the organization and function of human body.
- The ability to use the metric system to measure mass, volume and length
- An understanding of the structure and function of cells
- An understanding of the structure and function of the digestive system, cardiovascular system, respiratory system, skeletal system, muscular system, nervous system, urinary system and inheritance using slides, preserved specimens, ADAM interactive anatomy, models, diagnostic imaging and experimentation
- An understanding of the basic principles of genetic inheritance

Outcomes:

Upon the completion of this course, students should be able to describe:

- a. Recognize metric units and use the appropriate instruments to take accurate measurement of mass, length and volume.
- b. Convert mass measure from pounds to kilograms
- c. Use biochemical tests to recognize the presence of carbohydrates, protein, and lipids
- d. Use a microscope and identify its parts
- e. Recognize various types of cells under the microscope and compare plant cells to animal cells
- f. Use a dissecting microscope to view skin, hair and nails
- g. Describe the process of diffusion and osmosis and predict the results when a cell is placed into various solutions of different tonicity
- h. Use ADAM to identify various components of the digestive system and demonstrate the breakdown of starch in the presence of amylase
- i. Use ADAM interactive anatomy and models of the heart to identify anatomical features of the heart and major blood vessels
- j. Demonstrate the ability to record the blood pressure on their lab partner
- k. Recognize the effect of smoking on human lung tissue and compare the effects to those of nonsmokers using histology slides, models, ADAM interactive anatomy and chest x-rays
- l. Recognize major representative muscles and bones in the body

- m. Describe the importance of the sense of smell on taste, identify the parts of the ear using a model, and recognize the parts of the eye
- n. Locate the kidneys
- o. Demonstrate an understanding of the process of Mendelian genetics

College Policies:

Plagiarism: Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanction. Please refer to your “Student Handbook” under “Policy on Student Rights,” the Section entitled “Student Discipline,” or the College catalog for additional information.

Americans with Disabilities Act (ADA): The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Roseann Dennerlein, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6307 (V/TTY) and her email is rdennerlein@nwcc.commnet.edu.

School Cancellations: If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio stations. Students may also call the College directly at (860) 738-6464 to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.