

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Anatomy and Physiology II Lab **Course #:** BIO* 212 Lab - Human

Course Description: Laboratory to accompany BIO* 212. This laboratory section presents a study of the anatomy and physiology of humans. Histology slides, animal dissections, computer dissection, diagnostic imaging, laboratory medical test results and experimentation will be used as needed. Much of the dissection experience will be provided through the use of ADAM INTERACTIVE ANATOMY and the accompanying student lab dissection guide to give students a virtual human dissection experience.

Pre-requisite/Co-requisite: Prerequisite: BIO* 211 Co-requisite: BIO* 212 Lecture

Goals: To provide a learning environment that will demonstrate and support lecture content dealing with the Nervous, Endocrine, Cardiovascular, Lymphatic, Respiratory, Digestive, Urinary and Reproductive Systems.

Outcomes: At the conclusion of this course students should be able to:

- Test spinal and cranial reflexes and explain causes of testing abnormalities
- Perform other diagnostic tests for vision, hearing, equilibrium, and other
- Identify structure of the nervous system using models, dissected specimens, prepared slides, drawings, computer programs, and diagnostic imaging
- Demonstrate and explain the concept of stereognosis
- Demonstrate and understanding of common nervous system pathologies including but not limited to ALS, CVA, Trauma, Alzheimer's Disease, Poliomyelitis, Multiple Sclerosis, Parkinsonism, and various brain tumors
- Recognize histology slides for the major endocrine organs and identify specific histological feature of each
- Use laboratory medicine values to recognize specific endocrine pathologies
- Explain how and why a glucose tolerance test is performed and relate blood glucose levels to insulin production
- Perform, explain and recognize the different major blood types – A, B, O and Rh – and determine the blood type when shown a test result
- Explain and recognize different blood pathologies when given specific laboratory test results and/or microscope slides
- Recognize major blood vessels and anatomical features of the heart using models, dissection specimens, histology slides and computer simulations
- Recognize the components of an ECG and identify selected pathologies
- Take a pulse, blood pressure and pulse oximetry readings and explain the significance of the results
- Describe the significance of the lymphatic system
- Recognize lymphatic structures
- Recognize and explain selected lymphatic pathologies using lab test results
- Explain diagnostic testing procedures for blood vessels, heart, and lymphatic disorders

- Identify components of the respiratory system using models, histology slides, dissection specimens, and computer simulations
- Use a spirometer to demonstrate lung function
- Recognize and explain selected respiratory pathologies
- Identify components of the digestive system using models, specimens, and histology slides
- Discuss common digestive pathologies
- Explain the role of nutrition in treating selected disorders including diabetes mellitus type I and type II
- Identify urinary system anatomy and recognize selected urinary system pathology
- Use blood test results to recognize metabolic disturbances including acidosis and alkalosis and their causes when given ABG results
- Recognize, identify, and explain the role of the major reproductive organs for males and females
- Recognize the role of specific placental components
- Recognize selected reproductive system abnormalities

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.