COLLEGEWIDE COURSE OUTLINE OF RECORD
APHY 204, HUMAN ANATOMY AND PHYSIOLOGY II

COURSE TITLE: Human Anatomy and Physiology II
COURSE NUMBER: APHY 204
PREREQUISITES: APHY 203 Human Anatomy and Physiology I
SCHOOL: Liberal Arts and Sciences
PROGRAM: Liberal Arts
CREDIT HOURS: 5
CONTACT HOURS: Lecture: 3 Lab: 4
DATE OF REVISION: Summer, 2011
EFFECTIVE DATE OF THIS REVISION: Fall, 2011

CATALOG DESCRIPTION: Provides the remaining comprehensive study of the inter-
relationship between anatomy and physiology from chemical to cellular to organ interactions.
Provides an in-depth study of each system of the body from a viewpoint of structure as well as
function: endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive
systems.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the
student will be expected to:

1. List the basic differences between anatomy and physiology.
2. Identify and describe the basic requirements of the human body to sustain life.
3. Communicate in anatomical, directional and medical terminology.
4. Describe the structure, function, location, and secretions of the endocrine system.
5. Describe the formation, composition, functions, and types of blood.
6. Identify and describe the structure, function, and location of the heart and major blood
   vessels.
7. Identify and describe the structure, pathways, and function of the lymphatic system.
8. Identify and describe the structure and function of the respiratory system and its role in
gas transport.
9. Identify and describe the structure and function of the digestive system, including the
   processes of nutrient digestion, absorption and utilization.
10. Describe how nutrients function in metabolism, energy balance, and hormone control.
11. Identify and describe the structure and function of the urinary system and its maintenance
    and regulation of the composition of extracellular fluid.
12. Describe water and acid/base balance and the organs involved with maintaining critical
    levels of each.
13. Identify and describe the structure and function of the reproductive system.
COURSE CONTENT: Topical areas of study include -

Lecture Content:
Endocrine system structure and function
Blood
Lymphatic system and immunity
Cardiovascular system anatomy
Cardiac physiology including cardiac conduction and EKG
Circulation physics of pressure, flow, and resistance
Respiratory system anatomy
Respiratory physiology: ventilation and respiration
Digestive system anatomy
Digestive physiology
Urinary system anatomy
Renal physiology with discussion of acid/base balance, fluid, and blood pressure regulation
Reproductive system
Discussion of clinical conditions
Regulatory mechanisms of the nervous and endocrine system

Lab Content:
Suggested Topics/Activities:

Scientific method/research components
Structure and location of endocrine glands
Hormone activities
Blood cell identification
Blood typing
Electrocardiography and heart rate
Blood pressure response
Cardiac cycle
Anatomy of the heart, including heart dissection
Identification of major arteries and veins
Histology and models of lymphatic system
Critical thinking questions related to immunity
Anatomy and histology of the respiratory system using models, slides, and/or dissection
Lung volumes/pulmonary function testing
Urinalysis
Anatomy and histology of the urinary system, including kidney dissection
Anatomy and histology of the digestive system using models, slides, and/or dissection
Enzyme activities
Nutritional analysis
Exercise physiology
Anatomy and histology of the reproductive system using models, slides and/or dissection
Case studies/Critical thinking applications
Integration of body systems
Computer simulations
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