

Prepared by the Department of Natural Sciences & Life Fitness

Date of Departmental Approval: February 28, 2014

Date Approved by Curriculum and Programs: March 12, 2014

Effective: Fall 2014

1. **Course Number:** BIO252 / BIO252L
Course Title: Human Anatomy and Physiology II
Human Anatomy and Physiology II Laboratory
2. **Description:** This course is a comprehensive systematic study of the human body emphasizing the structure and function of several organ systems. Human Anatomy & Physiology II covers the following organ systems: nervous, endocrine, circulatory, lymphatic, respiratory, digestive, and urinary. Lecture topics are correlated with laboratory work (3 class hours/ 2 laboratory hours).
3. **Student Learning Outcomes (instructional objectives; intellectual skills):**
Upon successful completion of this course, students are able to do the following.
 - Name and identify the parts of the nervous system
 - Describe the histology of nervous tissue
 - Explain the functioning of neurons including resting membrane potentials, graded potentials, and action potentials
 - Classify and describe the physiology of endocrine glands and hormones
 - Identify and describe the physiology of the formed elements and plasma of the blood
 - Label the parts of the heart
 - Explain the function of each part of the heart
 - Identify a selection of arteries and veins
 - Summarize the lymphatic vessels and describe the formation of lymph
 - Identify the functional anatomy of the respiratory system
 - Describe the transport of the respiratory gases
 - Identify the functional anatomy of the digestive system
 - Describe the mechanical and chemical activities of the digestive system
 - Name and identify the parts of the urinary system
 - Describe the formation of urine
 - Explain water balance and the importance of electrolytes in controlling fluid movement
4. **Credits:** Four credits
5. **Satisfies General Education Requirement:** No
6. **Prerequisite:** A grade of C or better in BIO107 or BIO251
7. **Semesters Offered:** Fall, Spring, Summer
8. **Suggested General Guidelines for Evaluation:** Course grading procedures and make-up policies are detailed in a student handout. The course grade evaluation is based on quizzes, hour-exams, the final examination, practical examinations, lab reports and written quizzes.
9. **General Topical Outline (Optional):** See attached.

BIO252. Human Anatomy and Physiology II – Content Outline

CONTROL SYSTEMS OF THE HUMAN BODY

1. Nervous tissue
2. The Spinal Cord and the Spinal Nerves
3. The Brain and the Cranial Nerves
4. The Sensory, Motor and Integrative Systems
5. The Autonomic Nervous System
6. The Special Senses
7. The Endocrine System

MAINTENANCE OF THE HUMAN BODY

8. The Cardiovascular System: The Blood
9. The Cardiovascular System: The Heart
10. The Cardiovascular System: The Vessels and Routes
11. The Lymphatic System and Immunity
12. The Respiratory System
13. The Digestive System
14. The Urinary System