

# Alexandria Technical and Community College

## BIOL 1416: Essentials of Anatomy and Physiology

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

This course meets Minnesota Transfer Curriculum (MnTC) goal area 3 and studies the human body's structure and function by body systems. Units include basic chemistry; structure and functions of cells; tissues; the integumentary, skeletal, muscular, nervous systems; and special senses. Additional units of study include the structure and function of the endocrine, circulatory, lymphatic, respiratory, digestive, excretory, and reproductive systems. Lab experience is included.

**B. COURSE EFFECTIVE DATES:** 01/13/2014 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Identify anatomical terms, body cavities, regions, and planes.
2. Describe the structural organization from atoms to organisms.
3. Explain organ systems complementarity, control mechanisms, and homeostasis.
4. Describe the structural anatomy and physiological functions of the cell, body tissues, and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive organ systems.
5. Perform in-lab or online laboratory exercises to reinforce structural and/or functional principles explored in lecture.

### D. LEARNING OUTCOMES (General)

1. The learner will demonstrate knowledge of the foundational organization and function of the human organism.
2. The learner will demonstrate knowledge of the structure and function of the containment, support, movement and nervous organ systems.
3. The learner will demonstrate knowledge of the structure and function of the endocrine, cardio-circulatory, and immune organ systems.
4. The learner will demonstrate knowledge of the structure and function of the respiratory, digestive, urinary, and reproductive organ systems.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted