VERNON COLLEGE
SYLLABUS

DIVISION: Mathematics and Sciences DATE: 2014-2015

COURSE NUMBER AND TITLE: BIOL 2401 Anatomy & Physiology I

CREDIT HRS: 4 HRS/WK LEC: 3 HRS/WK LAB: 3 LEC/LAB COMB: 6

I. VERNON COLLEGE GENERAL EDUCATION PHILOSOPHY STATEMENT

General education at Vernon College reflects the institution's deep conviction that successful, satisfying lives require a wide range of skills and knowledge. Through the Texas Core Curriculum and through support and reinforcement in all non-core courses, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

CORE OBJECTIVES (GENERAL EDUCATION OUTCOMES)

- Critical Thinking Skills – to include creative thinking, innovation, inquiry and analysis, evaluation and synthesis of information
- Communication Skills – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
- Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- Personal Responsibility – to include the ability to connect choices, actions and consequences to ethical decision making
- Social Responsibility – to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

II. CATALOG DESCRIPTION:

Prerequisite: Texas Success Initiative complete in Reading and Writing. Highly recommended: BIOL 1406 and/or CHEM 1406. Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Lab Fee: $24.00; Special Fee: $12.00

III. REQUIRED BACKGROUND:

Prerequisite: Texas Success Initiative complete in Reading and Writing. Highly recommended: BIOL 1406 and/or CHEM 1406

IV. REQUIRED TEXTS, OTHER REFERENCE MATERIALS:

- Marieb, Elaine, Human Anatomy & Physiology. 9th Edition. Benjamin Cummings Publishing Co., 2012
- The Pearson Custom Library for Anatomy and Physiology. Second Edition. Benjamin Cummings Publishing Co., 2014
- Internet access code for above text (comes prepackaged with text or bought separately)

- Dissection Set

Optional Texts:

- Marieb, Elaine. Anatomy & Physiology Coloring Workbook . Eighth Edition. Benjamin Cummings Publishing Co., 2006
- Garrett, Lori. Get Ready for A&P. Pearson Benjamin Cummings Publishing Co., 2007

V. METHOD OF INSTRUCTION:

Internet and Lecture Formats:

1. Lecture and/or reading of text and notes available online
2. Discussions and/or papers on relevant or controversial subjects
3. Audio-visual and interactive aids
4. If by internet, weekly contact with instructor (more often if necessary)

Laboratory sessions are also required each week with emphasis placed on selected vertebrate dissections and laboratory exercises to reinforce the learning process.

Students desiring auxiliary aids and services for this course should make their requests to the instructor and the Special Services Director.

VI. COURSE CONTENT:

1. Introduction to the Human Body
2. Inorganic Chemistry
3. Basic Biochemistry
4. Cell Structure & Function
5. Tissues
6. Integumentary System
7. Skeletal System
8. Muscular System
9. Digestive System
10. Metabolism

VII. COURSE OUTCOMES:

By the end of this course each student should be able to:

1. Discuss the composition of the human body at the atomic, molecular, cellular, tissue, and organ levels of organization.
2. Identify various structures of cells, tissues, and organs.
3. Discuss the physiology and anatomy of the human integumentary, skeletal, muscular, & digestive systems.
4. Discuss human disease including the etiology, physiological effects, and methods of control for the integumentary, muscular, skeletal, and digestive systems.
5. Demonstrate proper safety procedures associated with the laboratory, and with the dissection and identification of prepared specimens.

VIII. ASSESSMENT:

Course Outcomes are evaluated in both lecture and laboratory settings. Evaluation will be based on testing, classroom or internet participation, evidence of preparation, attendance, or any combination of the above. In addition, students may be required to prepare a project requiring use of the library and their writing skills.