ALLEN COMMUNITY COLLEGE
COMMON COURSE OUTLINE
BIO 257 HUMAN ANATOMY AND PHYSIOLOGY

I. COURSE INFORMATION
A. Biology 257 Human Anatomy and Physiology
B. 5 credit hours
D. Prerequisites: Completion of BIO 102 Principles of Biology or BIO 150 Biology I (Cellular) with a C grade or above
E. KRSN: BIO 2020 Anatomy & Physiology

The learning outcomes and competencies detailed in this course outline or syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups project for this course as approved by the Kansas Board of Regents.

II. COURSE DESCRIPTION
Human Anatomy and Physiology is an integrated lecture and laboratory course for biology, pre-nursing, pre-medicine, and pre-physical therapy students. This course covers the macroscopic and microscopic structures and functions of the cells, tissues, organs, and organ systems of the human body.

III. LEARNING OUTCOMES
A. Demonstrate measurable understanding of descriptive anatomical and directional terminology with body plan and organization
B. Demonstrate measurable understanding of the basic concept of homeostasis and how homeostatic mechanisms apply to body systems
C. Demonstrate measurable understanding of basic chemistry and cellular structures and function
D. Demonstrate measurable understanding of the basic tissues of the body, their location and functions
E. Demonstrate measurable understanding of major gross and microscopic anatomical components of the integumentary system and describe the functions of the system
F. Demonstrate measurable understanding of major gross and microscopic anatomical components of the skeletal system and explain their functional roles in osteogenesis, repair, and body movement
G. Demonstrate measurable understanding of major gross and microscopic anatomical components of the muscular system and explain their functional roles in body movement, maintenance of posture, and heat production
H. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the nervous system and explain their functional roles in communication, control, and integration
I. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the eye and ear and explain their functional roles in vision, hearing and equilibrium. Students should also be able to identify and locate the receptors responsible for olfaction and gustation and briefly describe the physiology of smell and taste
J. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the endocrine system and explain the functional roles of their respective hormones in communication, control, and integration
K. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the cardiovascular system and explain their functional roles in transport and hemodynamics
L. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the lymphatic system and explain their functional roles in fluid dynamics and immunity
M. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the respiratory system and explain their functional roles in breathing/ventilation and in the processes of external and internal respiration
N. Demonstrate measurable understanding of the major gross and microscopic anatomical components of the digestive system and explain their functional roles in digestion, absorption, excretion and elimination
O. Demonstrate measureable understanding of the functional relationship among cellular, tissue and organ level metabolism, the role nutrition plays in metabolism, and the mechanisms by which metabolic rate is regulated in the body
P. Demonstrate measureable understanding of the major gross and microscopic anatomical components of the urinary system and explain their functional roles
Q. Demonstrate measureable understanding of the physiology of the homeostatic mechanisms that control fluid/electrolyte and acid/base balance
R. Demonstrate measureable understanding of the major gross and microscopic anatomical components of the reproductive system and explain their functional roles in reproduction and inheritance

IV. MAJOR CONTENT AREAS
A. Anatomical terminology
B. Homeostasis
C. Chemistry
D. Cells
E. Tissues
F. Integumentary system
G. Skeletal system
H. Muscular system
I. Nervous system
J. Endocrine system
K. Cardiovascular system
L. Lymphatic system
M. Respiratory system
N. Digestive system
O. Metabolism
P. Urinary system
Q. Fluid and electrolyte balance
R. Reproductive systems

V. ASSIGNMENTS (may include but are not limited to)
A. Assignments
B. Laboratory activities
C. Quizzes
D. Exams

VI. EVALUATION METHODS (may include but are not limited to)
A. Lecture and lab exams
B. Projects and lab exercises
C. Assignments
D. Quizzes and exams