ALLEN COMMUNITY COLLEGE
COMMON COURSE OUTLINE
PSC114 COLLEGE PHYSICS I

Allen COMMUNITY COLLEGE
www.allencc.edu

I. COURSE INFORMATION

A. Physical Science 114 College Physics I
B. 5 credit hours
C. Giordano. *Physics: Reasoning and Relationships.* 2nd ed. Kentucky: Cengage Learning. 2013
D. Prerequisites: Student must be eligible for the following courses: MAT105 College Algebra, COL101 English Composition I
E. KRSN: PHY1010 Physics I with Lab

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

College Physics I is an integrated lecture and laboratory course that introduces classical physics to general education students. The material of this course will include the study of translational and rotational motion, force, work, mechanical and thermal energy, linear and angular momentum, and fluid mechanics using the tools of algebra and trigonometry. This course is designed to meet the requirements for pre-professional students entering health related and science programs.

III. LEARNING OUTCOMES

A. The student will be able to evaluate situations involving Physics I topics by choosing the appropriate conceptual frameworks
B. The student will be able to recall relevant physical models and to successfully apply these models using techniques of symbolic and numerical analysis in order to generate solutions to problems in Physics I topics
C. The student will be able to think critically by utilizing problem solving techniques to evaluate and analyze context rich, multi-step problems in Physics I topics, selecting relevant information, selecting an approach to solving the problem and carrying out the analysis needed to generate and communicate solution(s)
D. The student will be able to perform measurements using physical apparatus, analyze the collected data including appropriate treatment of errors and uncertainties, generate and communicate conclusions based on the data and analysis for experimental investigations in Physics I topics

IV. MAJOR CONTENT AREAS

A. Motion
B. Force
C. Energy
D. Momentum
E. Mechanics
F. Fluids
G. Thermodynamics

V. ASSIGNMENTS (may include but are not limited to)

A. Assignments
B. Laboratory activities
C. Quizzes and 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