**PHYSICS COURSE SYLLABUS**

SCI 1200
PHYSICS

I. COURSE DESCRIPTION

Physics (SCI 1200) is a general course intended to expose students to the physical and mathematical relationships that allow us to describe the world that God has created. The first semester of this course focuses on Newtonian Mechanics while the second semester covers a variety of topics including Electricity and Magnetism, Sound and Light Waves, and Modern Physics. The course incorporates a virtual laboratory component to expand the students understanding as well as provide real world applications. To successfully function in this physics course, students should have completed or be enrolled in Algebra II.

II. RATIONALE

Physics is a general course intended to expose students to the physical and mathematical relationships that allow us to describe the world that God has created. The first semester of this course focuses on Newtonian Mechanics, while the second semester covers a variety of topics including Electricity and Magnetism, Sound and Light Waves, and Modern Physics. It also further develops course concepts by helping students utilize the skills of experimentation, observation, and critical thinking.

III. PREREQUISITES

None.

IV. MATERIALS LIST

Microsoft Office or compatible software

V. MEASURABLE LEARNING OUTCOMES

The student will be able to:

A. Use scalars and vectors to visualize and calculate concepts of motion.
B. Articulate Newton’s and Kepler’s laws of motion.
C. Demonstrate an understanding of how energy is transferred and changed from one form to another.
D. Describe how sound and light waves act and react.

E. Differentiate between static and current electricity and describe each one.

F. Know the relationship between magnetism and electricity.

G. Have a general understanding of Atomic theory, including fusion and fission

VI. COURSE REQUIREMENTS AND ASSIGNMENTS
A. Individual lesson assessments (1 per lesson)
B. 2-3 Online Labs per Module
C. 3 Quizzes per Module
D. 1 Test per Module
E. 2 Research Papers
F. 2 Semester Exams

VII. COURSE GRADING AND POLICIES
A. Grading Weights
   Daily Work 25%
   Quizzes 35%
   Tests 40%

B. Scale
   A 90 – 100
   B 80 – 89
   C 70 – 79
   D 60 – 69
   F Below 60

VIII. Other Policies
A. Academic Misconduct
   See pages 32-35 of your Student Handbook
B. Repeating Assignments
   Students may repeat lesson twice. Quizzes and tests cannot be repeated to gain a higher grade. Quizzes and tests may be reset for technical issues,
but a new set of questions will be generated.