

# **LINCOLN UNIVERSITY**

## **SPRING 2012 COURSE SYLLABUS**

Course Number:       **SCI 10**  
Course Title:         **Physical Science**  
Course Credit:       **3 Units (45 lecture hours)**  
Pre-Requisite:       **By permission of the Instructor**  
Instructor:           **Chris Nguyen, Ph.D.**

### **COURSE DESCRIPTION**

The study of matter and energy; principles and practical applications in physics, chemistry, mechanics, heat, sound, electricity, electronics, geosciences and astronomy.

This course introduces the basic concepts, principles, laws, and formula of fundamental Physics. It covers various topics such as Mechanics, Electricity and Magnetism, Heat, Sound, Light, Atomic Structure, etc. Experiments and applications related to fundamental Physics, and additionally, as mathematical tools, basic functions such as Sin, Cos, Tan, Log and Exp are also be introduced.

### **COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of this course, the students will be able to:

- Understand simple physical phenomena happening around us
- Understand the basic concepts, principles, and laws of Physics related to the topics introduced in class
- Learn basic Mathematical Functions used in Physics
- Perform simple calculations using basic formula in fundamental Physics
- Understand simple experiments performed in fundamental Physics
- Understand simple applications based on concepts, principles and laws of fundamental Physics

### **INSTRUCTIONAL METHODS**

Instructional methods will include instructor lectures and educational material presentations. Classroom activities are collective – students may and should discuss with and help each other. The instructors will be available to help students with all tutorials, assignments, and exercises. Students are expected to attend 45 hours of Lecture and to actively participate in class discussions.

## EVALUATION

1. Homework and Quiz: Written homework assignments will be given, and additionally unannounced quizzes will be given during class time.
2. Final Examination

## GRADING SCALE

Class attendance	20%
Quizzes	20%
Homework	20%
Final Exam	<u>40%</u>
	100%

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

To successfully complete this course, the student must attend the lecture regularly, and pass the quizzes, homework, and final exam portions with a total score of 70% or higher.

## RESOURCE MATERIALS

### Textbook:

#### Theory and Problems of College Physics

Frederick J Bueche, Ph.D. and Eugene Hetch, Ph.D.

Schaum's Outline Series – McGraw-Hill

### Additional Materials:

Handouts to be provided in class

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**OFFICE HOURS:** Contact Dr. Chris T. Nguyen for appointment.

Revised: January 17, 2012