

COURSE SYLLABUS

Course Number:	SCI 10
Course Title:	Physical Science
Course Credit:	3 Units (45 hours of lectures)
Class Hours:	Wednesday, 9:00 AM to 11:45 AM
Instructor:	Chris T. 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. (3 units)

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 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 related to topics such as Motions, Solids, Fluids, Gases, Electricity and Magnetism, Heat, Sound, Light, Atomic Structure...

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 Instructor 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. Weekly Homework and Quiz: Written homework assignments will be given, and additionally unannounced Review Quizzes will be given during class time.
2. Class attendance and participation
3. Mid-Term Exam and Final Exam.

GRADING SCALE:

Class Attendance	10%
Homework & Quizzes	25%
Mid-Term Exam	25%
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 regularly the Lecture, pass the Quiz, Homework and Final Exam portions with a total score of 70% or higher.

RESOURCE MATERIALS

Textbook:

College Physics by Frederick J. Bueche, Ph.D., and Eugene Hecht, Ph.D.,
Schaum's Outline Series – McGraw-Hill, 11th edition (2011)
ISBN-10: **0071754873**, ISBN-13: **978-0071754873**

Additional Materials:

Handouts to be provided in class

CONTACT: cnguyen@lincolnuca.edu or chinguyen39@gmail.com
Home Phone: 510-489-8727 or Cell. Phone: 498-439-3448

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

(*) INSTRUCTOR AFFILIATIONS

- Member of AIUM (American Institute of Ultrasound in Medicine)
- ASE (American Society of Echocardiography)
- HMS-PGA (Harvard Medical School Postgraduate Association)
- SDMS (Society of Diagnostic Medical Sonography)
- ISEECG (International Society of Electrocardiography)
- Member of CFA (California Faculty Association)
- A Reviewer for "Journal Ultrasound in Medicine". Nominated Distinguished Reviewer in 2011
- A Reviewer for "Journal Ultrasound in Medicine and Biology" since 2006

(Updated in August 2012)