



# Lincoln University

## Sci 10 Physical Science

### COURSE SYLLABUS

Department of Allied Health Studies

Fall, 2011

**Lecture Schedule:** Tuesday, 12:30 PM – 3:15 PM  
**Credit:** 3 units (45 in-class hours)  
**Instructor:** Prof. Sergey Aityan  
**Office Hours:** Tuesday, 11:00 AM – 12:00 PM  
Thursday, 2:00 PM – 3:00 PM  
Students are advised to schedule appointments by signing their names on the appointment list which is located on the information board next to the professor's office that will ensure exact appointment time without waiting.  
**e-mail:** [aityan@lincolnuca.edu](mailto:aityan@lincolnuca.edu)  
**☎:** (510) 628-8016

**Textbook:**                   **1. Main Textbook:**  
James T. Shipman, Jerry D. Wilson, and Aaron W. Todd (2009), An Introduction to Physical Science, 12th Edition, Cengage Learning, 720 p.  
ISBN-13: 978-0-538-49362-8  
ISBN-10: 0-538-49362-3  
\*\*\* previous editions of this book are okay too \*\*\*

**Last Revision:** August 20, 2011

### CATALOG DESCRIPTION

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

### COURSE OBJECTIVES

To introduce students to the foundations of Physical Science, its major concepts, facts, phenomena, and measurements.

### PROCEDURES AND METHODOLOGY

Lecture method is used in combination with a supervised exercises and business case study. The emphasis will be on learning by doing. Every student must participate in an intensive

classroom activity, must complete home tasks and course projects, and take quizzes and exams.

**REQUIREMENTS**

All students are required to attend classes. Continuous assessment is emphasized. Written or oral quizzes will be given every week. Reading, writing, home tasks, and “business case study” assignments will be made throughout the course. Students must complete all assignments and take all quizzes, mid-term exam and final exam on the **dates due**. Plagiarism will result in the grade “F” and a report to the administration.

**ATTENDANCE**

Students are expected to attend each class session. If you cannot attend a class due to a valid reason, please notify the instructor prior to the class.

**EXAMS**

Both, midterm and final exams are structured as written essay to answer the given questions. The essay must be written structurally with clear logical presentation of the answers. Graphs, charts, tables, and other supporting illustrations are required if needed. Examples to illustrate the answers are required. Exams will cover all assigned chapters, any additional readings or supplementary materials covered in class. The exams are neither “open book” nor “open notes.”

**GRADING AND SCORING**

Activity	Time	Percent
Quizzes, home tasks, and classroom activities	Every week	30%
Mid-term exam	Second part of March	35%
Final exam	Last week of the course	35%

All results of written test will employ a numerical scoring system that is convertible to grades as indicated below.

94-100	A
90-93	A-
87-89	B+
83-86	B
80-82	B-

77-79	C+
73-76	C
70-72	C-
66-69	D+
60-65	D
0-59	F

**MAKE-UP WORK**

Assignments are to be completed on time during the course. Late assignments will result in a reduced grade. Mid-term and final exams and group presentations cannot be made up if missed unless there is a documented emergency.

**COURSE SCHEDULE**

Lectures	Topic	Chapters
1	(a) About the Course (b) Measurements	Ch. 1
2	(a) Motion	Ch. 2

	(b) Force and Motion	Ch. 3
3	(a) Work and Energy	Ch. 4
	(b) Temperature and Heat	Ch. 5
4	Waves	Ch. 6
5	Optics and Wave Effects	Ch. 7
6	Electricity and Magnetism	Ch. 8
7	Atomic and Nuclear Physics	Ch. 9, 10
8	(a) Course Review	
	(b) Midterm Exam	Ch. 1 - 10
9	(a) The Chemical Elements	Ch. 11
	(b) Chemical Reaction	Ch. 12
10	(a) Chemical Bonding	Ch. 13
	(b) Organic Chemistry	Ch. 14
11	(a) Place and Time	Ch. 15
	(b) The Solar System	Ch. 16
12	(a) Moons and Small Solar System Bodies	Ch. 17
	(b) The Universe	Ch. 18
13	(a) The Atmosphere	Ch. 19
	(b) Atmospheric Effects	Ch. 20
14	(a) Structural Geology and Plate Tectonics	Ch. 21
	(b) Geologic Time	Ch. 24
15	(a) Course Review	
	(b) Comprehensive Final Exam	Ch. 1–21, 24

### OTHER COMMENTS

- Please participate. What you put into the class will determine what you get out of it – and what others get out of it.
- Please come on time. Late arrivals disturb everyone else.
- If you miss a class, you are responsible for getting notes/slide printouts on the material covered from a classmate or the instructor.
- To avoid distracting noise in class, cellular phones must be turned off or the ringing mode silenced.
- Questions and comments during the class are welcome. Do not hesitate to ask questions – do not leave anything unclear for you.

### MODIFICATION OF THE SYLLABUS

The instructor reserves the right to modify this syllabus at any time during the semester. Announcements of any changes will be made in a classroom.