

Global Learning Semesters

Course Syllabus

Course: CHEM-235A The Elements of Physical Chemistry

Department: Biomedical Sciences

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
CHEM-235A	The Elements of Physical Chemistry	3
Semester Offered	Contact Hours	Prerequisites
Fall, Spring	56	CHEM-160A or CHEM-160
Department	Level of Course	Language of Instruction
Biomedical Sciences	Lower Division	English

Course Description

The course offers an introduction to the fundamental principles of physical chemistry with emphasis on its applications to current research in biology, environmental sciences and engineering. Microscopic and molecular level phenomena are presented, discussed and tied to their physical bases. Theoretical concepts are examined and discussed as they apply in familiar topics from organic chemistry and biochemistry. Emphasis is placed on magnetic resonance and statistical thermodynamics.

Instructor

Dr. Photos Hajigeorgiou

Course Aims and Objectives

To give an appreciation for the basic principles of physical chemistry as applied to the health sciences.

Teaching Methods

The course is delivered through a mixture of lectures supported by transparencies, and includes tutorials on the analysis of experimental data in physical chemistry.

Course Teaching Hours

56 hours (42 hours lectures + 14 hours data analysis work)

Evaluation and Grading

Analysis Reports: 25%
Tests: 40%
Final Exam: 35%

Readings and Resources

Required Textbook

The Elements of Physical Chemistry: With Applications in Biology. By Peter W. Atkins, 2001, W H Freeman and Co.

Recommended Reading

Applied Mathematics for Physical Chemistry, by James R. Barrante, 2nd Edition, 1998, Prentice Hall