



University of Nicosia, Cyprus

Course Code BIOL-110	Course Title Elements of Biology	ECTS Credits 6
Department Life and Health Sciences	Semester Fall	Prerequisites None
Type of Course Major Requirement	Field Biology	Language of Instruction English
Level of Course 1 st Cycle	Year of Study 1 st	Lecturer(s) Dr Iris Charalambidou
Mode of Delivery face-to-face	Work Placement N/A	Co-requisites None

Objectives of the Course:

The purpose of the course is to give students an understanding of the basic principles of biology and to raise fundamental questions that will strengthen their interest in the science of life. Students get basic knowledge in the biology of the cell and in the field of human genetics. Topics include the basics of cell structure and functions, as well as the basics of heredity and reproduction.

Learning Outcomes:

Upon completion the students should be able to:

1. Describe the chemical structure of basic biological macro molecules
2. Describe the structure and function of cell-membrane and organelles and to identify the differences between prokaryotic and eukaryotic cells
3. Know the principles of cellular respiration and photosynthesis
4. Know the basic principles of Mitosis, Meiosis, and reproduction
5. Describe the basis of Mendelian genetics and the chromosomal basis of inheritance
6. Know the structure and function of DNA and be able to describe the basic steps involved in gene transcription and translation

Course Content:

1. Introduction, levels of organization, characteristics of life
2. Elements and biological compounds: sugars, nucleot

Teaching Methods:

Lectures, demonstrations, hands-on experience in the form of lab activities and homework assignments

Assessment Methods:

Assignments, mid-term exam, final exam

Required Textbooks:

Authors	Title	Publisher	Year	ISBN
R.T. Grauer et al.	<i>Exploring Microsoft Office 2010, Vol. 1</i>	Prentice Hall	2011	978-0-13-612232-6
