



# UNIVERSITY OF NICOSIA ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

University of Nicosia, Cyprus

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

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

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