

<b>SCHOOL</b>	ENVIRONMENT		
<b>ACADEMIC UNIT</b>	FOOD SCIENCE & TECHNOLOGY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	<b>FST102</b>	<b>SEMESTER</b>	1
<b>COURSE TITLE</b>	<b>BIOLOGY</b>		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercise, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Lectures		3	5
<b>Total</b>		3	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>General background, special background, specialised general knowledge, skills development</i>	Specialised general knowledge		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>			

## LEARNING OUTCOMES

### Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

**The aim of Biology** course is for students to develop an understanding of the basic concepts of living organisms such as interdependence of organisms, the molecular and cellular basis of certain characteristics, energy transfer in organisms and cell growth and heredity.

**Upon successful completion of the course students will have knowledge to:**

- identify and classify micro-organisms
- describe the metabolism of micro-organisms
- define the relationship between genetics and heredity
- explain the morphology and function of animals and plants
- develop the necessary background to understand the content of relevant courses in subsequent semesters

## General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology  
Adapting to new situations  
Decision-making  
Working independently  
Team work  
Working in an international environment  
Working in an interdisciplinary environment  
Production of new research ideas

Project planning and management  
Respect for difference and multiculturalism  
Respect for the natural environment  
Showing social, professional and ethical responsibility and sensitivity to gender issues  
Criticism and self-criticism  
Production of free, creative and inductive thinking  
.....  
Others...  
.....

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Team work
- Criticism and self-criticism
- Respect for the natural environment
- Production of free, creative and inductive thinking

## SYLLABUS

- The chemistry of life
  - Chemical compounds in living organisms
  - Water and environment
  - Carbon and the molecular diversity of life
  - Structure and function of large biological molecules
- The cell
  - Cell structure & function
  - Cell membrane structure & function
  - Metabolism
  - Cellular respiration - energy
  - Photosynthesis
  - Cell-cell communication
  - Cell cycle
- Genetics
  - Gene
  - Inheritance - chromosomes
  - From gene to protein
  - Regulation of gene expression
- Evolution
  - Biological populations' evolution
  - Bacteria and Archaea
  - Protists
  - Fungi
  - Viruses
- Plant and animal structure and function  
Ecology

## TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	In teaching class	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Power point presentation, Whiteboard writing	
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	117
	<b>Total contact hours and training</b>	<b>117</b>
<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure  Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other  Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<b>Language of evaluation: Greek</b> <b>Final written examination in theory and in laboratory that includes:</b>  Midterm and final exams (fill-in the blanks questions, short answer questions, multiple choice questions)	

#### ATTACHED BIBLIOGRAPHY

1. CAMPBELL N., REECE J., Biology
2. Alberts B., Bray D., Hopkin K., Johnson A., Lewis J., Raff M., Roberts K., Walter P. Molecular Biology of the Cell

Performance Statistics of the last 2years			
Grade (descending order)	absolute frequency	relative frequency %	sum of success rates per class
<b>BIOLOGY (1st time on 2020-21)</b>			
10	11	13%	13%
9	7	9%	22%
8	16	20%	41%
7	13	16%	57%
6	35	43%	100%
	82	100%	