

COURSE LAYOUT

1. GENERAL

SCHOOL	FOOD, BIOTECHNOLOGY AND DEVELOPMENT		
DEPARTMENT	BIOTECHNOLOGY		
STUDY LEVEL	<i>Undergraduate</i>		
COURSE CODE	3330	SEMESTER	1 st
COURSE TITLE	INTRODUCTION TO INFORMATICS (OBLIGATORY)		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	ECTS
Theory: Lectures		2	
Laboratory: Use of Software Tools		3	
COURSE TYPE	General knowledge, Scientific Area, Skills development		
PREREQUISITES			
LANGUAGE	Greek		
IS THE COURSE OFFERED for ERASMUS STUDENTS?	Yes (in Greek)		
COURSE WEB PAGE	http://openeclass.aua.gr		

2. LEARNING OUTCOMES

Learning Outcomes
<p>Upon successful completion of the course the student will</p> <ul style="list-style-type: none"> - be able to distinguish the capabilities of the components of a computer and will be able to choose the synthesis of a computer system that satisfies the needs of his/her scientific field, - be able to exploit the capabilities of the Operating System of the computer and will be able to proceed to the desirable customization, - acquire the necessary knowledge for searching information at online libraries and knowledge repositories, - exploit the basic concepts of Computer Science with broader extensions to society, employment, scientific progress and philosophy , - acquire the necessary knowledge of Information and Communication Technology and of their interconnection with financial and business objectives, - be able to exploit dedicated software packages for the processing and analysis of data, for the evaluation of the results and for making decisions on issues of his/her specialization area, - be able to use the computer at a collaborative learning level with fellows, in the context of team work.
General Competenses
<ul style="list-style-type: none"> - Search, analysis and synthesis of data and information by use of the necessary information and communication technologies. - Adaptation to new situations. - Decision making. - Individual work. - Team work.

3. COURSE CONTENT

Theory

1. Data representation, storage and manipulation of data in a computer system, applications of Informatics.
2. Computer Hardware: Central Processing Unit, Main Memory, Peripheral Devices.
3. Algorithms – Programming Languages
4. Computer Software: Operating systems, Application Software.
5. Database Systems.
6. Artificial Intelligence
7. Information Systems: System Analysis and Design, Decision Support Systems.
8. Communication-Computer Networks: Internet Technology, Internet Services, Telematic Multimedia Applications.
9. Computer Security.
10. Recent developments and technological achievements .

Laboratory

1. Operating-System – Windows Environment
2. Email, Internet
3. Word processor
4. Spreadsheets
5. Software of Database Management System
6. Informatics Applications

4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	In classroom and in laboratory (face-to-face)	
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	Exploitation of Information and Communication Technologies in teaching, in laboratory training and in the communication with students. Use of dedicated software. Use of integrated e-learning system. Communication with students via open eclass platform and e-mail.	
TEACHING ORGANISATION	Δραστηριότητα	Φόρτος Εργασίας Εξαμήνου
	Lectures	26 hours
	Laboratory work	39 hours
	Individual study	60 hours
	Total contact hours and training	
STUDENTS EVALUATION	I. Theory Final Exam, written or oral, of increasing difficulty, which may include Multiple choice test, Questions of brief answer, Questions to develop a topic, Judgment questions and Exercise solving. Marking Scale: 0-10. Minimum Passing Mark: 5. II. Laboratory Final Exam, hands on computer, of the software tools taught. Marking Scale: 0-10.	

	<p>Minimum Passing Mark: 5.</p>
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The final Course mark is the average of the marks on Theory and Lab.

5. BIBLIOGRAPHY

-Proposed Literature:

1. INTRODUCTION TO INFORMATICS – THEORY AND PRACTICE, ALLAN EVANS, KENDALL MARTIN, MATY ANNE POASTY, KRITIKI PUB., 2014, ATHENS.
2. THE THEORY OF COMPUTERS - AN INTEGRATED PRESENTATION, J. GLENN BROOKSHEARR, KLIDARITHMOS PUB., 2009, ATHENS.
3. INTRODUCTION TO INFORMATICS, BEN BEEKMAN, GEORGE BEEKMAN, H. GIOURDAS AND CO. PUB., 2015, ATHENS.
4. INTRODUCTION TO THE SCIENCE OF COMPUTERS, A. B. SIDERIDIS, A. B. SIDERIDIS PUB., ATHENS.

-Related Scientific Journals:

1. Computers and Electronics in Agriculture.
2. Information Sciences.
3. Computers in Biology and Medicine.
4. BioSystems.