

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF SCIENCES		
ACADEMIC UNIT	PHYSICS DEPARTMENT		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	25	SEMESTER	2
COURSE TITLE	PROGRAMMING LANGUAGES		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
	4	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	General background/skills development		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (Greek)		
COURSE WEBSITE (URL)	http://ecourse.uoi.gr/enrol/index.php?id=881		

(2) LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>This course is an introduction to programming languages. The student develops its skill in programming using the C programming language. During the course special emphasis is given to the use of the open source operating system Linux. The student during the laboratory part of the course develops programmes using a computer. After the successful completion of the course the student is in position:</p> <ul style="list-style-type: none"> • To use the operating system Linux • To develop and compile simple C programmes • To develop logic in his programmes using the C control statements • To design programmes using functions • To develop composite programmes using arrays and structures • To treat data files

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

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Others...

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Working independently.

Search for, analysis and synthesis of data and information, with the use of the necessary technology.

(3) SYLLABUS

Learning of C programming language.

- Introduction to Linux.
- Simple input-output command lines
- Data types, operators and expressions
- Control statements
- Functions and program structure
- Pointers and arrays
- Structures
- Data files

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face teaching	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	<ul style="list-style-type: none"> • A web page for notes and announcements is used. • Each student uses a computer during the laboratory part of the course. 	
TEACHING METHODS	<i>Activity</i>	<i>Semester workload</i>

