Course unit title:	**Programming Principles**		
Course unit code:	AEEE195		
Type of course unit:	Compulsory		
Level of course unit:	Bachelor (1st Cycle)		
Year of study:	1		
Semester when the unit is delivered:	1		
Number of ECTS credits allocated :	5		
Name of lecturer(s):	Dr. Haris Haralambous		
Learning outcomes of the course unit:	1. Identify and differentiate data types, variables and constants. Recognise and interpret precedence rules. 2. Analyse and decompose a problem into parts. Translate problem into flow-charts and pseudo-code design methods. 3. Develop and apply correct syntax in programs. 4. Identify syntax and logic errors in a program. 5. Identify when decision and repetition structures have to be used and choose the appropriate one for each case. 6. Apply standard search algorithms. 7. Demonstrate user-friendliness in program development and determine test procedures.		
Mode of delivery:	Face-to-face		
Prerequisites:	None	Co-requisites:	None
Recommended optional program components:	None		
Course contents:	• Basic concepts of imperative programming. • Program development through data representation and construction of algorithms using selection, iteration, and sequence. • Information representation in programs (types and variables). • Statements, assignments and operations. • Conditional and repetitive statements. • Principles of algorithmic design. • Composite data type (arrays, structures), • Data input/output.		
Recommended and/or required reading:			
Textbooks:	J.R. Hanly and E.B. Koffman, *Problem Solving and Program Design in C*, 5th Edition, Addison Wesley.		
References:	M. Deitel, Paul J. Deitel, *C: How to Program*, 3rd Edition, Prentice Hall, 2000.		
Planned learning activities and teaching methods:	The taught part of course is delivered to the students by means of lectures, conducted with the help of computer presentations. Lecture notes and presentations are available through the web for students to use in combination with the textbooks. Time is also allocated in computer labs where students can develop their programming skills under the guidance of the lecturer.		
Assessment methods and criteria:	• Assignments 20% • Tests: 20%		

	• Final Exam 60%
Language of instruction:	English
Work placement(s):	No