

Course information in English

General course information:

Course title:	Computer Programming	Course code:	ΓK0304
Credits:	5	Work load (hours):	140
Course level:	Undergraduate <input checked="" type="checkbox"/>	Graduate <input type="checkbox"/>	
Course type:	Mandatory <input checked="" type="checkbox"/>	Selective <input type="checkbox"/>	
Course category:	Basic <input checked="" type="checkbox"/>	Orientation <input type="checkbox"/>	
Semester:	1 th	Hours per week:	4
Course objectives (capabilities pursued and learning results):			
Introduction to Information Technology, operation of computers and use of networks and Internet. Microsoft Excel and programming with Visual Basic for Applications for solving engineering problems			
Prerequisites:			
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Instructor's data:

Name:	Dr Marios Spiliotopoulos, Dr Athanasios Fragkou
Level:	Laboratory Teaching Staff
Office:	
Tel. – email:	24210 74177– 74363 spilioto@uth.gr, fthanos@uth.gr
Other tutors:	

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	History of Computers. Introduction to Computer Science. Network working and Internet.	4	3
2	Introduction to Microsoft Excel. Basic Operations. Usual problems-solutions. Exercises.	4	3
3	Using Microsoft Excel for graphs. Conditional functions. Exercises.	4	4
4	Introduction to Visual Basic for Applications. Macros και Buttons. Developer toolbar. Basic properties (offset, resize...).	4	4
5	Visual Basic for Applications (VBA) Programming Variables. Mathematical functions.	4	4
6	Conditional Logic. Analysis. Exercises	4	4
7	Strings and strings functions.	4	4
8	Programming Loops.	4	4
9	Programming Arrays.	4	4
10	Subs and functions. Working with worksheets.	4	4
11	Introduction to MATLAB, Basic Operations. Command History.	4	4
12	Programming Variables with MATLAB. Mathematical expressions. Graphs and diagrams.	4	4
13	Conditional Logic with MATLAB. Exercises.	4	4
14	Programming Loops with MATLAB. Exercises.	4	4

Additional hours for:			
Class project	Examinations	Preparation for examinations	Educational visit
		30	-

Suggested literature:

- Τεχνικές προγραμματισμού & χρήση λογισμικού Η/Υ στις κατασκευές, Αναστάσιος Γ. Σέξτος, Ευάγγελος Η. Κατσάνο.ς
- Προγραμματισμός με τη Χρήση Matlab, Γραβάνης Γιώργος, Γιαννουτάκης Κωνσταντίνος.
- Αλγόριθμοι προγράμματα εφαρμογές με FORTRAN & Visual BASIC,

Τσοῦρος Κλαῦδιος-Κωνσταντῖνος.
 • Microsoft Visual Basic 2008. Author(s) Patrice Pelland. Microsoft Press.

Teaching method (<i>select and describe if necessary - weight</i>):		
Teaching	<input checked="" type="checkbox"/>	80 %
Seminars	<input type="checkbox"/>	
Demonstrations	<input type="checkbox"/>	
Laboratory	<input checked="" type="checkbox"/>	20 %
Exercises	<input type="checkbox"/>	
Visits at facilities	<input type="checkbox"/>	
Other (<i>describe</i>):	<input type="checkbox"/>	
Total		100%

Evaluation method (<i>select</i>)- weight :				
	<u>written</u>	<u>%</u>	<u>Oral</u>	<u>%</u>
Homework	<input type="checkbox"/>		<input type="checkbox"/>	
Class project	<input type="checkbox"/>		<input type="checkbox"/>	
Interim examination	<input type="checkbox"/>		<input type="checkbox"/>	
Final examinations	<input checked="" type="checkbox"/>	100%	<input type="checkbox"/>	
Other (<i>describe</i>):	<input type="checkbox"/>		<input type="checkbox"/>	