FUNDAMENTALS OF COMPUTER PROGRAMMING

1	Course Title:	FUNDAMENTALS OF COMPUTER PROGRAMMING	
2	Course Code:	END1030	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	2	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Dr. Ögr. Üyesi BESİM TÜRKER ÖZALP	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	tozalp@uludag.edu.tr, 0-224-2942090, Endüstri Müh. Bölümü Oda No:302 Görükle Bursa	
17	Website:	http://www20.uludag.edu.tr/~tozalp	
18	Objective of the Course:	Introduction to computer programming with the impacts of computers on society and engineering. Emphasis will be placed on algorithms and logical problem solving methods.	
19	Contribution of the Course to Professional Development:	To be able to use basic computer applications. To be able to comprehend algorithm logic for solving basic mathematical problems. Ability to categorize computational problems and offer potential solutions. Being able to design algorithms and software within computer skills. To be able to follow the literature about programming and use international resources.	
20	Learning Outcomes:		
		1	To be able to use basic computer applications.
		2	To be able to comprehend the logic of the algorithms for the solution of basic mathematical problems.
		3	To be able to categorize computational problems and offer potential solutions to them.
		4	To be able to design algorithms and software within computer skills.
		5	To be able to follow the literature on programming and use international resources.
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21	Course Content:		
	Course Content:		

Week	Theoretical	Practice
1	Computers and introduction to Visual Basic.	Visual Studio introduction.
2	Visual Basic Development Environment, Introduction to Console Application. Arithmetic, equality and relation operators.	Visual Studio Integrated Development Environment (IDE) and Console applications.
3	Introduction to Control Statements. Algorithms, flow charts, pseudocode preparation.	Console applications regarding the theoretical lecture topic.
4	Control structures, If… Then selection statement, If...Then…Else selection statement.	Console applications regarding the theoretical lecture topic.
5	While loop statement, Do While…Loop statement. Do Until…Loop statement, compound assignment operators.	Console applications regarding the theoretical lecture topic.
6	Counter-controlled loops, sentinel-controlled loops.	Console applications regarding the theoretical lecture topic.
7	Nested control statements, nested loop statements.	Console applications regarding the theoretical lecture topic.
8	For… Next loop statement. Select ... Case multiple selection statement.	Console applications regarding the theoretical lecture topic.
9	Do…Loop While statement, Do...Loop Until statement.	Console applications regarding the theoretical lecture topic.
10	Using Exit and Continue in loops. Logical Operators.	Console applications regarding the theoretical lecture topic.
11	Introduction to methods: Modules and	Console applications regarding the theoretical lecture
12	Value. Functions. Methods that return a value.	Console applications regarding the theoretical lecture
13	Creating a method with multiple parameters.	Console applications regarding the theoretical lecture
14	Value types and reference types. Argument	Console applications regarding the theoretical lecture
15	reference. Recursion. Random number generation	Console applications regarding the theoretical lecture
16	Textbooks, References and/or Other Materials:	P.J. Deitel, Visual Basic 2008 – How to Program, Prentice Hall, 2008
23	Assessment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	3.00	42.00
Homeworks	2	10.00	20.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.50	1.50
Others	0	0.00	0.00
Final Exams	1	1.50	1.50
Total Work Load			122.50
Total work load/ 30 hr			4.03
ECTS Credit of the Course			4.00

TERM LEARNING ACTIVITIES	NUMBE	WEIGHT
Midterm Exam	1	20.00
Home work-project	1	20.00
Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		The proficiency of the students is measured and evaluated by homework, midterm and final exams.

24	**ECTS / WORK LOAD TABLE**

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	3	3	0	5	0	0	3	0	0	0	0	4	4	0	0	0
ÖK2	3	3	0	5	0	0	3	0	0	0	0	4	4	0	0	0
ÖK3	3	3	0	5	0	0	3	0	0	0	0	4	4	0	0	0
ÖK4	3	3	0	5	0	0	3	0	0	0	0	4	4	0	0	0
ÖK5	3	3	0	5	0	0	3	0	0	0	0	4	4	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**			**3 Medium**			**4 High**			**5 Very High**				