COMPUTER SYSTEMS AND INTRODUCTION TO ALGORITHMS

1	Course Title:	COMPUTER SYSTEMS AND INTRODUCTION TO ALGORITHMS
2	Course Code:	BMB1001
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	9.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	1.00
10	Laboratory (hour/week):	2
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi CENGİZ TOĞAY
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Tel: 02242942796 ctogay@uludag.edu.tr
17	Website:	
18	Objective of the Course:	1. To introduce Computer Engineering Program, courses offered in the program and related research areas 2. To inform students on Computer Engineering as a profession, problems in computer engineering and their solution methods, and application domains 3. To invite faculty members, assistants, graduates, employers, senior and graduate students as speakers to introduce Computer Engineering Program from different perspectives
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	Algorithmic thinking
	2	Programming
	3	Report
	4	Presentation
	5	Team Work
	6	Resarch
	7	Ethical behaviour
	8	An ability to use ofice tools(word/excel/powepoint)
	9	An ability to communicate effectively
	10	An ability to identify, formulate, and solve engineering problems

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Introduction. Definition of the Algorithm. Necessary Properties of the Algorithm. Flowcharts.	Laboratory study: HTML
2	Programming Concepts. Definition of the variables. Data Types. Assignment Statements	Laboratory study:HTML
3	Programming Concepts. Definition of the variables. Data Types. Assignment Statements	Laboratory study:HTML
4	Conditional evaluation. If/else/switch	Laboratory study : HTML+JavaScript
5	Conditional evaluation. If/else/switch	Laboratory study : HTML+JavaScript
6	Loop Structures:for/while/do while	Laboratory study : HTML+JavaScript
7	Loop Structures:for/while/do while	Laboratory study :HTML+ JavaScript
8	Function Definition.	Laboratory study : HTML+JavaScript
9	Function Definition.	Laboratory study : +HTMLJavaScript
10	Research and Presentation about Computer Science	Laboratory study : +HTMLJavaScript
11	Research and Presentation about Computer Science	Laboratory study : +HTMLJavaScript
12	Research and Presentation about Computer Science	Laboratory study : +HTMLJavaScript
13	Research and Presentation about Computer Science	Laboratory study : +HTMLJavaScript
14	Research and Presentation about Computer Science	Laboratory study : +HTMLJavaScript

22	Textbooks, References and/or Other Materials:	• J. Glenn Brookshear, Computer Science: An Overview (12th Edition),Addison Wesley; • Yrd.Doç.Dr. Birim Balcı Demir, Bilgisayar Bilimine Giriş, Çeviri: J. Glenn Brookshear , Computer Science: An Overview (12th Edition) • David I. Schneider, Introduction to Programming Using Python • How Computers Work, R. White, T.E. Downs, Que Publishing, 2007, ISBN 0-7897-3613-6
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	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		

24	**ECTS / WORK LOAD TABLE**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	3.00	42.00
Self study and preperation	14	7.00	98.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	40.00	40.00
Others	0	0.00	0.00
Final Exams	1	60.00	60.00
Total Work Load			268.00
Total work load/ 30 hr			8.93
ECTS Credit of the Course			9.00

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	4	3	4	2	4	5	4	0	0	0	0	0	0	0	0	0
ÖK2	2	4	3	5	4	4	3	0	0	0	0	0	0	0	0	0
ÖK3	3	3	3	3	4	3	5	0	0	0	0	0	0	0	0	0
ÖK4	4	3	4	3	5	3	3	0	0	0	0	0	0	0	0	0
ÖK5	3	4	3	3	4	4	5	0	0	0	0	0	0	0	0	0
ÖK6	3	4	3	5	2	2	3	0	0	0	0	0	0	0	0	0
ÖK7	3	3	5	2	2	3	3	0	0	0	0	0	0	0	0	0
ÖK8	2	2	3	3	3	2	4	0	0	0	0	0	0	0	0	0
ÖK9	3	3	4	5	1	3	3	0	0	0	0	0	0	0	0	0
ÖK10	4	3	4	4	4	4	4	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**		**4 High**			**5 Very High**						