INTRODUCTION TO COMPUTER PROGRAMMING

1	Course Title:	INTRODUCTION TO COMPUTER PROGRAMMING
2	Course Code:	BMB1002
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. NECMETTIN KAYA
15	Course Lecturers:	Dr. Öğr. Üy. Erol Solmaz
16	Contact information of the Course Coordinator:	Prof.Dr. Necmettin Kaya necmi@uludag.edu.tr 224-2941979 U.Ü. Müh. Mim. Fak., Makine Mühendisliği Bölümü Bursa
17	Website:	http://homepage.uludag.edu.tr\~necmi\bpg.htm
18	Objective of the Course:	The purpose of this course is to give the student engineering problem solving skills to write programs in Python language and to develop algorithms.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Be able to write computer programs to solve mathematics, physics and engineering problems
	2	Be able to use theoretical knowledge on professional activities and develop own skills in this context,
	3	Identifying problems in mechanical engineering, algorithm development, gaining the ability to formulate and solve with computer facilities.
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Introduction to computers, hardware, software, operating systems, algorithms.	

2	Steps of solving problems with computer programming, algorithms and flow charts, loops.	
3	Examples of algorithms and flow charts.	
4	Introduction to Python language, structure of a Python program, naming of variables, data types, operators, data input	
5	Modules and built-in functions	
6	Condition commands	
7	Loops: While	
8	Loops: For	
9	Examples and Solutions	
10	Lists, Matrix	
11	Functions	
12	Files	
13	Graphics	
14	Examples and Solutions	

22	Textbooks, References and/or Other Materials:	1. Algoritma Geliştirme ve Programlamaya Giriş, Dr. Fahri Vatansever, Seçkin Yayınları 2. Herkes için Python, Bülent Çobanoğlu, Pusula Yayıncılık 3. A Primer on Scientific Programming with Python, Hans

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	1.00	14.00
Self study and preperation	14	1.00	14.00
Homeworks	7	4.00	28.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	15.00	15.00
Total Work Load			129.00
ECTS Credit of the Course			6.00

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Quiz	0	0.00
Final Exam	1	60.00
Midterm exams	1	40.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total work load/ 30 hr		3.97
Measurement and Evaluation Techniques Used in the		

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	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0
ÖK3	0	0	0	4	0	0	0	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