INTRODUCTION TO COMPUTER PROGRAMMING

1	Course Title:	INTRODUCTION TO COMPUTER PROGRAMMING
2	Course Code:	CEV1025
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	1.00
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:	Öğr. Gör. Dr. Yusuf Alptekin TÜRKKAN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Dr.Öğr.Üyesi Kenan TÜFEKCİ Bursa Uludağ Üniversitesi Mühendislik Fakültesi Makina Mühendisliği Bölümü tel: 0224 2942794 email: kenantufekci@uludag.edu.tr
17	Website:	
18	Objective of the Course:	It aims to provide students with an understanding of the role computation can play in solving problems and to help students, regardless of their major, feel justifiably confident of their ability to write small programs that allow them to accomplish useful goals. The class uses the C# programming language.
19	Contribution of the Course to Professional Development:	The course provides coding of engineering calculations made in other courses in computer programming language, thus preventing loss of time in professional life.
20	Learning Outcomes:	
	1	Be able write a computer program about basic engineering problems
	2	Be able to gain the ability to use theoretical data correctly in professional activities and develop potential skills,
	3	Be able to gain the ability to identify environmental engineering problems, develop algorithms, formulate and solve them, he / she makes the most of computer facilities.
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21	Course Content:	

Course Content:

Week	Theoretical	Practice

1	Introduction to computer programming, hardware, software, operating systems, algorithm concept	Recognizing and communicating with the basic input-output units of the computer.
2	Problem solution steps, algorithm and flow diagrams with computer, loop concept	Creating an algorithm that finds fibonacci numbers.
3	Examples of algorithms and flow charts	Create a flowchart that finds the roots of a quadratic equation
4	Determining the limits of variables used in C #.	Determining the limits of variables used in C #.
5	Comparison Structures. Nested if-else statements.	Writing a C program that finds the roots of a quadratic equation.
6	Loops: While, Do-While Structures	Finding odd and even numbers between two given numbers.
7	For loop - nested for loops	Determination of prime numbers in a certain range.
8	One-dimensional arrays	Finding the average of grades in a class
9	Two-dimensional arrays	Calculating the average of a class given midterm and final grades
10	Operations with two dimensional arrays. Matrix addition, subtraction.	sum of two matrices
11	Binary method in one dimensional matrices	Sort the number of randomly entered 50 pieces.
12	Defining functions, sending parameters.	Faktöriyel, kombinasyon ve permütasyon hesapları
13	Conditional work with the Switch-Case command.	Creating letter grades in a calculated average class
14	General review and sample programs.	Numerically solving optimization problems.

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	0	0.00	0.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	8.00	8.00
Others	0	0.00	0.00
Final Exams	1	10.00	10.00
Total Work Load			60.00
Total work load/ 30 hr			2.00
ECTS Credit of the Course			2.00

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	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	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