INTRODUCTION TO ALGORITHMS AND PROGRAMMING

1	Course Title:	INTRODUCTION TO ALGORITHMS AND PROGRAMMING
2	Course Code:	IYZ1202
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi MELİH ENGİN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Yrd. Doç. Dr. Melih ENGİN
17	Website:	
18	Objective of the Course:	Introduction to Algorithms, flowcharts, basic search and ranking algorithms, the basic concepts of programming, software language. The structure of a computer language, control statements, loops, Software Applications.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	Know the general concepts of Basic programming
	2	The algorithm logic, algorithms and understand how to create structured programming issues
	3	Structural features and use the main features of the C programming language with strong possibilities in relation to the concept of algorithm
	4	For the solution of problems with algorithms and flow diagrams, easy, understandable and effective program design
	5	Problem finds and corrects errors in the solutions and programs
	6	Defines the data hierarchy
	7	Defines and uses structured programming unit
	8	
	9	
	10	

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	The concept and design of algorithms	
2	Flow diagrams and design	

3	Programming, programming language and structured programming concept	
4	The basic concepts of the C programming language	
5	Decision-making (Condition) structure	
6	Repeat (Loop) structures	
7	Array (vector) concept	
8	Array (vector in) search and ranking algorithms	
9	Multi-dimensional arrays (matrices)	
10	Mathematical operations on multi-dimensional arrays	
11	The concept of sub-program and sub-programmed examples	
12	The concept of recursion and recursive subroutine examples	
13		
14		

22	Textbooks, References and/or Other Materials:	
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	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	35.00	35.00
Others	0	0.00	0.00
Final Exams	1	55.00	55.00
Total Work Load			146.00
Total work load/ 30 hr			4.87
ECTS Credit of the Course			5.00

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	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	3	0	2	1	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	3	0	2	1	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	3	0	2	1	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	3	0	2	1	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**