	DATA STRUC	CTURE	ES AND ALGORITHMS						
1	Course Title:	DATA ST	TRUCTURES AND ALGORITHMS						
2	Course Code:	BLPS12	12						
3	Type of Course:	Optional							
4	Level of Course:	Short Cy	cle						
5	Year of Study:	1							
6	Semester:	2							
7	ECTS Credits Allocated:	3.00							
8	Theoretical (hour/week):	2.00							
9	Practice (hour/week):	0.00							
10	Laboratory (hour/week):	0							
11	Prerequisites:	None							
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	ace						
14	Course Coordinator:	Öğr. Gör	. AYŞE BAŞTUĞ KOÇ						
15	Course Lecturers:								
16	Contact information of the Course Coordinator:	aysebast Bursa Ul Program	tugkoc@uludag.edu.tr, +902242942677, udağ Üniversitesi Gemlik Asım Kocabıyık MYO Bilgisayar cılığı-Gemlik/Bursa						
17	Website:								
18	Objective of the Course:	It is the a models a compute access th	analysis of algorithms needed in creating mathematical and any subject containing data, storing information in r memory and presenting basic data structures designed to his information.						
19	Contribution of the Course to Professional Development:	It makes processii quantitat	students aware of the structures used for storing and ng data during programming. On the importance of ive methods used in software design is settled.						
20	Learning Outcomes:								
		1	Learns algorithm development and analysis methods.						
		2	Knows how algorithms measure their performance.						
		3	Learns sorting and search methods.						
		4	Gains knowledge of data and basic data types.						
		5	Learns the basic data structures designed to store and access information in computer memory.						
		6	Can solve problems with stack, queue, list, linked list, tree, graph data structures.						
		7	It performs all the subjects using a programming language.						
		8							
		9							
		10							
21	Course Content:	_							
		Co	urse Content:						
Week	Theoretical		Practice						
1	Algorithm Development and Algorith Analysis	m							
2	Basic Data Types, Memory Manage Recursive Algorithms	ment and							

3	Search Algorithms																			
4	Sorti	ing A	lgorit	nms																
5	Lists																			
6	One-Way and Two-Way Linked Lists																			
7	Stac	ks																		
8	An C	Overv	view a	nd Mi	dterm															
9	Que	ues																		
10	Grap Navi	oh De igatin	efinitiong Alg	on and orithm	Repr s	esenta	tion, C	Graph												
11	Grap Dijkt	oh Sh ira, B	nortes ellma	t Path n & Fo	Findi ord	ng Algo	orithm	s:												
12	Tree	s																		
13	Bina	ry Tr	ee, H	eap T	ree, A	VL Tre	es													
14	Gen Lem	eral ⁻ pelzi	Tree A v Cod	Applica ling	ations	, Huffm	nan Co	oding,												
22	Textbooks, References and/or Other Materials:									"Data Structures, Past, Present, and Future," Mark Allen Weiss, Proceedings of the 46th ACM Technical Symposium on Computer Science Education, 2015. Dr.Rıfat ÇÖLKESEN, "Veri yapıları ve algoritmalar", Papatya yayıncılık, 2002. Lecture Notes.										
Activites								1	Numb	er		Dura	ition (hour)	Total Work Load (hour)					
Theoretical Midterm Exam									40	1 4 0			2.00			28.00				
Practica	Practicals/Labs									C			0.00			0.00				
Self sty	₩9ri ^{g_i}	nd pr	epera	ation			0		0.0	38			2.00			28.00				
Homew	vorks								1	14			2.00			28.00				
Froject	S						2		10	d.00			0.00			0.00				
Field S	tudie	S							()			0.00			0.00				
Michers	15 EX 13	ade							1	1				3.00			3.00			
Others									(0					0.00					
Final E	rinal Exams										100.00				3.00					
Total W	Total Work Load															90.00				
UDIARISKYOFK 10ad/ 30 nr									stu	idents'	learnir	ng in the	ecours	course. 3.00						
ECISC	CIS Credit of the Course															3.00				
25	5 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																			
	I	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16			
ÖK1	4	4	4	2	3	5	5	5	3	1	1	1	0	0	0	0	0			
ÖK2	4	4	5	2	4	5	5	5	3	1	1	1	0	0	0	0	0			
ÖK3	;	3	4	2	5	3	3	3	1	1	1	1	0	0	0	0	0			
ÖK4	4	4	5	2	4	5	4	2	1	1	1	1	0	0	0	0	0			

ÖK5	4	4	2	5	5	4	3	1	1	1	1	0	0	0	0	0
ÖK6	4	4	2	5	5	4	3	1	1	1	1	0	0	0	0	0
ÖK7	4	5	3	4	5	4	3	1	1	1	1	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	ntrib 1 very low ion evel:		2 low		3 Medium			4 High			5 Very High					