COMMUNICATION NETWORKS									
1	Course Title:	COMMU	NICATION NETWORKS						
2	Course Code:	EEM4410							
3	Type of Course:	Optional							
4	Level of Course:	First Cycle							
5	Year of Study:	4							
6	Semester:	8							
7	ECTS Credits Allocated:	4.00							
8	Theoretical (hour/week):	3.00							
9	Practice (hour/week):	0.00							
10	Laboratory (hour/week):	0							
11	Prerequisites:	-							
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	ace						
14	Course Coordinator:	Doç. Dr. SAİT ESER KARLIK							
15	Course Lecturers:	-							
16	Contact information of the Course Coordinator:	E-posta:ekarlik@uludag.edu.tr Tel: (224) 294 20 95 Adres:Elektrik-Elektronik Mühendisliği Bölümü 3. Kat, No:307							
17	Website:								
18	Objective of the Course:	To gain sufficient background about architectures, implementation an operational principles of current communication networks; to determine and solve basic problems in communication networks; to determine performance of a communication network; to design a basic network; to develop and select proper transmission methods and devices for communication networks							
19	Contribution of the Course to Professional Development:	Having the required knowledge depth about topics in communication networks							
20	Learning Outcomes:	1							
		1	To gain sufficient background about architectures, implementation an operational principles of current communication networks						
		2	To determine basic problems in communication networks						
		3	To solve basic problems in communication networks						
		4	To determine performance of a communication network and to design a basic network						
		5	To develop proper transmission methods for communication networks						
		6	To select proper devices for communication networks						
		7							
		8							
		9							
		10							
21	Course Content:								
		Co	ourse Content:						
Week	k Theoretical Practice								

1	Introduction to communication netwo Communication network classification broadcast networks, point to point net LANs, common bus, ring and star top basic MAC protocols in LANs, MAN a architectures	rks: n, etworks, pologies, and WAN							
2	Basics of network architecture: Design principles, connection oriented (circu switching) and connectionless (packe switching) services and network featu datagram service, virtual circuit, netw examples, SMDS	gn it et ures, vork							
3	Data link layer: Functions, framing m data flow control mechanisms, stap a protocol, sliding window protocol, dat layer protocol examples	ethods, and wait ta link							
4	MAC sublayer: Static channel allocat methods, MAPs	ion							
5	Network devices: Their relations with repeaters, hubs, bridges, LAN switch	OSI, ies							
6	Network devices: Routers, static and routing algorithms, brouters, Layer 3 switches, gateways	dynamic							
7	Fiber distributed data interface (FDD architecture and features, FDDI-II an	l): FDDI d FFOL							
8	Ethernet family: Fast Ethernet (100B IEEE802.12 (AnyLAN), Gigabit Ether	ase-X), met,							
Activit	es		Number	Duration (hour)	Total Work Load (hour)				
Theore	mask, creating subnets		14	3.00	42.00				
10 Practica	Rasic IP routing: Minimum routing fiv als/Labs	vod and	0	0.00	0.00				
Self stu			14	2.00	28.00				
Homew	vorks		0	0.00	0.00				
Project		ant of		0.00	0.00				
Field St	Optical access networks: Developme tudies	ent of	0	0.00	0.00				
Midtern	nerams	WOIK	1	20.00	20.00				
Others	types		0	0.00	0.00				
Final F	BRON, EPON-GEPON, 10 GEPON,	GPON	1	30.00	30.00				
Total W	/ork oad				120.00				
Total w	ork load/ 30 hr				4 00				
FCTS (Credit of the Course			• .• •••	4 00				
			 Computer Networks, A. S. Tanenbaum, Prentice Hall. Bilgisayar Haberleşmesi ve Ağ Teknolojileri, Rifat Çölkesen ve Bülent Örencik, Papatya Yayınları. Bilgisayar Ağları ve Ağ Güvenliği, Osman Nuri Uçan ve Onur Osman, Nobel Yay. Dağıtım. Bilgisayar Ağları, B. Demir Öner, Papatya Yayınları. Bilgisayar Ağları, N. Baykal, SAS Bilişim Yayınları. 						
23	Assesment								
TERML	EARNING ACTIVITIES	NUMBE R	WEIGHT						
Midtern	n Exam	1	40.00						
Quiz		0	0.00						
Home v	work-project	0	0.00						

Final Exam						1		60.	60.00							
Total							2	10	100.00							
Contribution of Term (Year) Learning Activities to Success Grade							40.	40.00								
Contribution of Final Exam to Success Grade							60.	60.00								
Total								10	100.00							
Measurement and Evaluation Techniques Used in the Course							ne Mio	Midterm and final exam								
24 ECTS / WORK LOAD TABLE																
25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very lov ution Level:		low		2 low 3 M			Medi	edium 4 High		5 Very High						