



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Network Equipment and Peripherals							
Course Code		BPR190		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 ( <i>Hours</i> )	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to enable students to explain computer network design, computer network management concepts and network management components.							
Course Content		At the end of this course, the student will be able to install a computer laboratory, maintain an existing laboratory, new terminal, printer and so on. will be able to solve the problems that may occur, to configure the server in the laboratory, to create new users, to edit the rights and properties of the user. Part-I. Computer Network Design 1. Analysis of Business Targets and Constraints 2. Analysis of Technical Targets and Constraints 3. Determination of Characteristics of Current Internetwork 4. Design of Network Traffic 5. Designing a Network Topology 6. Designing Model for Verification and Naming 7. Bridge, Switching and Selecting Routing Protocols 8. Developing Network Security and Network Management Strategies 9. Selecting Technologies and Network Devices for Campus Networks 10. Selecting Technology and Network Devices for Corporate Networks Section-II. Computer Network Management 1. Introduction to Computer Network Management 2. Network Directives 3. Error Control 4. Configuration Management 5. Security Management 6. Performance Management 7. Using Level Management 8. Network Management Protocols							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	Introduction to the network systems Hulusi Turgut Pusula Yayınları
2	Computer Networks and Communication Abdullah Kuzu Edt. Nobel Y.

Week	Weekly Detailed Course Contents	
1	Theoretical	Computer Networks General Introduction and Definitions
2	Theoretical	Use of Design Methodology from Top to Bottom, Analysis of Business Objectives, Analysis of Business Constraints, Analysis of Technical Objectives and Constraints
3	Theoretical	Describing the Infrastructure Character of the Computer Network, Checking the Health of the Existing Network, Tools Used to Extract the Characteristics of the Existing Network, Defining the Traffic Flow, Defining the Traffic Load
4	Theoretical	Identifying Traffic Behavior, Characterizing Service Quality Requirements, Designing a Hierarchical Network, Designing Campus Network Topology
5	Theoretical	Company Network Topology Designing, Physical Security Planning, Network Layer Addressing Recommendations, Designing a Model for Naming
6	Theoretical	Selecting Decision Making, Bridging and Switching Methods in Top-Down Network Design Process, Choosing Between Routing Protocols
7	Theoretical	Yukarıdan Aşağıya Ağ Tasarım Sürecinde Karar Verme, Köprüleme ve Anahtarlama Metodlarının Seçimi, Yönlendirme Protokolleri Arasında Seçim Yapma
8	Theoretical	Selecting Decision Making, Bridging and Switching Methods in Top-Down Network Design Process, Choosing Between Routing Protocols
9	Intermediate Exam	midterm
10	Theoretical	Selection of Technologies and Devices for Campus Networks, LAN Cabling Design, LAN Technologies, Selection of Devices for Campus Network Design
11	Theoretical	Technology and Devices Selection for Company Networks, Remote Access Technologies, Wide Area Network Technologies
12	Theoretical	Introduction to Network Management, Creating a Data Network, Network Management System Definition, Network Management System Architecture, Present Status of Network Management Systems, Network



13	Theoretical	Network Orientations, Services Provided by Carriers, Bandwidth Management, Factors Stiffening Standardization, Benefits of Error Control Management Application, Success of Error Control Management,
14	Theoretical	Ağ Yönelimleri, Taşıyıcılar Tarafından Sunulan Hizmetler, Bant Genişliği Yönetimi, Standardizasyonu Zorlaştıran Etkenler, Hata Kontrol Yönetim Uygulamasının Yararları, Hata Kontrol Yönetiminin Başarımı,
15	Theoretical	Network Management Protocols, History of Network Management Protocols, Standard Protocol Development, SNMP, CMIS / CMIP, CMOT
16	Final Exam	Final Examination

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	1	0	5	5
Term Project	1	0	5	5
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

**Learning Outcomes**

1	Explain network management hardware.
2	Explaining Network Management System Architecture.
3	Expressing the Infrastructure Character of Computer Network.
4	Explain the problems encountered in the implementation of network management system.
5	Solving the problems encountered in the network management system.

**Programme Outcomes (Business Administration Management)**

1	To be able to use the theoretical knowledge in business management in working life
2	Having the ability to use the management functions of the business and following new management techniques
3	To be able to fulfill the legal responsibilities of the operator, to have the knowledge and equipment to follow and implement the relevant legislation
4	To be able to use the information and communication technologies at the level required by the field, to adapt the new technologies to the operating systems by following the technological changes
5	To identify, analyze and bring solutions to problems encountered in professional practice
6	Managing business financing; bringing a solution to the financial problems by making the financial analysis of the business
7	Gaining the ability to manage the business by ensuring that the human resources operate and develop efficiently in line with business objectives
8	To be able to comprehend the basic functions of production and marketing as a whole and to be able to apply new production and marketing techniques
9	To be able to perform cost calculations in enterprises, to hold accounting records, to prepare financial statements and to be able to interpret
10	Having professional ethical values sought in the qualified personnel required by the market, and able to use Turkish language effectively in written and oral communication; To be able to have professional foreign language knowledge that can make international correspondences related to the field
11	Having analytical analysis, interpretation, evaluation and solution skills of field related information
12	To be able to follow and apply current and economic developments in national and international framework related to his / her profession

**Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High**

	L1
P1	1

