Course Syllabus

Code - Course Title	**BOP205 - Computer Network Systems**
Course Type	III. SEMESTER
Laboratory + Practice	3+1
ECTS	**4.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	ÖĞR. GÖR. MELDA BEYAZ KORKUT

Mode of Delivery	This course is conducted exclusively via face-to-face instruction, utilizing an application that converts audio from a lapel microphone into text, without the presence of a sign language interpreter.
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	None
Recommended Resources	Course notes, presentations, and laboratory application guidelines prepared by the instructor.
Work Placement	None
Aims of the Course	This course aims to enable students to learn the fundamental concepts of computer networks, network types, topologies, connectivity devices, and communication protocols, and to acquire practical skills in wired and wireless network infrastructures as well as basic network security.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1	**LO-1** **LO-4**	Data communication methods	Lecture, Question & Answer, Educational Games
Week - 2	**LO-1**	Computer networks and types of networks according to their scope (PAN, LAN, MAN, WAN)	Lecture, Question & Answer, Educational Games
Week - 3	**LO-2**	Overview of network connectivity devices (hub, switch, router, access point)	Lecture, Question & Answer, Demonstration and Practice, Educational Games
Week - 4	**LO-1** **LO-5**	Network topologies	Lecture, Question & Answer, Educational Games
Week - 5	**LO-5**	Network topologies: application of establishing topologies in a simulation environment	Lecture, Question & Answer, Demonstration and Practice, Educational Games, Practice/Practical Work/Workshop

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 6	LO-1 LO-7	Ethernet local area networks and the Ethernet protocol	Lecture, Educational Games
Week - 7	LO-1 LO-2 LO-7	WAN Technologies	Lecture, Question & Answer, Educational Games
Week - 8	LO-4 LO-7	Wireless Network Technologies	Lecture, Question & Answer, Educational Games
Week - 9	LO-2 LO-8	Structural Cabling	Lecture, Question & Answer, Demonstration and Practice, Educational Games, Practice/Practical Work/Workshop
Week - 10	LO-2 LO-8	The hardware used in a wired network	Lecture, Question & Answer, Demonstration and Practice, Educational Games
Week - 11	LO-2 LO-7	The hardware used in wireless networks	Lecture, Question & Answer, Demonstration and Practice, Educational Games
Week - 12	LO-4 LO-6	OSI and TCP/IP layer models and fundamental protocols	Lecture, Question & Answer, Educational Games
Week - 13	LO-6	Internet network structure: IP addressing, DNS, and DHCP	Lecture, Educational Games, Simulation, Practice/Practical Work/Workshop
Week - 14	LO-3	Network security: fundamental threats and security measures for small networks	Lecture, Question & Answer, Case Study, Educational Games

Learning Outcomes

#	Learning Outcome
1	Can compare types of computer networks based on their scope.
2	Can classify wired and wireless network hardware according to their functions.
3	Can recommend basic security measures for a small network.
4	Can explain data communication methods.
5	Can analyze the advantages and limitations of network topologies.
6	Can interpret the internet network structure through TCP/IP layers.
7	Can distinguish between Ethernet, WAN, and wireless network technologies according to their areas of application.

Learning Outcomes

#	Learning Outcome
8	Can apply structural cabling principles to a small network scenario.

Sustainable Development Goals

✓ Industry, Innovation and Infrastructure

Course Theme

✓ Communication Technologies and the IoT

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	3.00	14	42
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	1.50	14	14
Ödevler	10.00	1	10
Proje - Rapor - Sunum Hazırlama	0.00	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	5.00	1	5
Final Sınavı Hazırlığı (sınav süresi dahil)	8.00	1	8
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	1.00	14	14
Staj Uygulaması	0.00	0	0
		Calculated ECTS	**4.0**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Multiple Choice Test ✓ Homework

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	30
Final Exam	1	40
Homework	1	30
	Sum (%)	**100**

Community Service Activity

This course does not include any Community Service activities.