



ESOGÜ Electrical-Electronics Engineering Department

COURSE CODE: 151227006 - 151247006 **COURSE TITLE:** Network Applications

Semester	Weekly Hours		COURSE				
	Theoretical	Practical	Credits	ECTS	Type	Language	
7	3	0	3	5	Compulsory () Elective (x)	Turkish () English (x)	
Write the credit (for non-credit courses weekly hours) below (If necessary distribute the credits.).							
Math and Basic Science		Electrical Engineering [mark (x) if there is high design content]		General Education	Humanities		
0		3 (x)		0	0		
Assessment		THEORETICAL-PRACTICAL COURSES			LABORATORY COURSES		
Midterm		Type	Number	%	Activity Type	Number	%
		Midterm	1	40	Quiz		
		Quiz	3	20	Lab performance		
		Homework			Report		
		Project			Oral exam		
		Other (.....)			Other (.....)		
Final			1	40			
Makeup exam (Oral/Written)		written					
Prerequisites		None					
Brief content of the course		CCNA Exploration Network Fundamentals					
Objectives of the course		<p>CCNA Exploration teaches networking based on technology, covering networking concepts using a top-down, theoretical, and integrated approach – from network applications to the network protocols and services provided to those applications by the lower layers of the network. CCNA Exploration includes the following features:</p> <ul style="list-style-type: none"> • Students learn the basics of routing, switching, and advanced technologies to prepare for Cisco CCNA certification and entry level networking careers • The curriculum discusses networking concepts in depth and uses language that allows for integration with engineering concepts, providing a deep, theoretical understanding of networking concepts for experienced learners with advanced problem solving and analytical skills. • Courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills 					
Contribution of the course towards professional education		• Provides students with the skills needed to succeed in networking-related degree programs					
Outcomes of the course		<ol style="list-style-type: none"> 1. Students learn basics of networks 2. Build knowledge base for advanced network applications 3. Build self-confidence for high technology digital systems 					
Textbook of the course		CCNA Study Guide Books					
Other reference books		Other CCNA books					
Required material for the course		Computer					

WEEKLY PLAN OF THE COURSE	
Week	Topics
1	Living in a Network Centric World
2	Communicating over the Network
3	Application Layer Functionality and Protocols
4	OSI Transport Layer
5	OSI Network Layer
6	Addressing the Network – IPv4
7	OSI Data Link Layer
8	Midterm
9	Midterm
10	OSI Physical Layer
11	Ethernet
12	Planning and Cabling Networks
13	Configuring and Testing Your Network
14	Trouble Shooting Network Fails
15,16	Final exam

Contribution of the course to the program outcomes

NO	OUTCOMES OF THE PROGRAM	4	3	2	1
1	Adequate knowledge of mathematics, science and Electrical and Electronic Engineering; ability to practice theoretical and practical knowledge of these areas into modeling and solving problems of Electrical and Electronic Engineering				X
2	Ability to identify complex engineering problems in Electrical and Electronic Engineering and related fields, for this purpose having skills to formulate, select and apply appropriate methods.				X
3	Having skills to apply modern design methods to design a complex system, equipment or product that should work under realistic conditions and constraints and satisfy specific requirements concerning the Electrical and Electronic Engineering.			X	
4	Having skills to develop, select and apply modern techniques and tools needed for Electrical and Electronic Engineering applications, skills to use information technology effectively.		X		
5	Skills to design and conduct tests, collect data, analyze results, and interpret data for the experimental investigation of Electrical and Electronic Engineering problems			X	
6	Ability to function effectively as an individual and as a member of teams within the discipline and in multidiscipline areas.				X
7	Communicating effectively in oral and written form both in Turkish and English.				X
8	Awareness of the necessity of lifelong learning, access to information, monitoring developments in science and technology and the ability to self-renewing				X
9	Understanding of professional and ethical responsibility				X
10	Information on project management, change management and risk management practices, awareness on entrepreneurship, innovation and sustainable development.			X	
11	Information about universal and societal effects of engineering applications on health, safety and environment; awareness of the legal consequences of engineering solutions.				X

Scale for assessing the contribution of the course to the program outcomes:

4: High 3: Medium 2: Low 1:None

Name of Instructor(s): Serkan Uğurluoğlu

Signature(s):

Date: