CYPRUS INTERNATIONAL UNIVERSITY

Computer Engineering - English - Undergraduate
Course Syllabus
2023-24 Spring

Code(s)	Course Name	Type	Weekly Course Hours			Credits	ECTS
			T	A	L		
CMPE332 ISYE332 CTPR218 MISY332 ITEC332	FUNDAMENTALS OF COMPUTER NETWORKS	Course	3	0	2	4	7

Prerequisite	-	Language of Instruction	English
Course Lecturer / Extension	Asst. Prof. Dr. Devrim SERAL / 2436		
E-mail	dseral@ciu.edu.tr	Office Hours	-
Teaching Assistant(s)			

Textbooks and/or References

Book / Reference 1	Computer Networks, 5th Edition Tanenbaum & Wetherall, ISBN-13: 9780132126953, Pearson
Book / Reference 2	Comer D.E., 2004,Computer Networks and Internet's with Internet Applications, 4th ed., Prentice Hall Int.,

Week(s)	Topics	Learning Outcomes	Solo Taxonomy Weight
Week 1	Introduction to computer Networks	Describe Computer Network, Networking hardware and list basic usage scenarios of computer networks	0
Week 2	Uses of Computer Networks	Describing Network Layering. Compare two major reference models.(OSI & TCP)	0
Week 3	Network Hardware	Apply theoretical basis of data communication to network problems.	0
Week 4	Network Software - Protocol Hierarchies	Compare Guided and Unguided mediums and describe different network types.	0
Week 5	Design Issues for the Layers	List and classify networking devices and calculate network subnet addresses.	0
Week 6	Reference Models -OSI-TCP/IP	Evaluate and compose networking topics as a team member and compose in term report.	0
Week 7	Metric Units in networking		-
Week 8	First Midterm Week		-
Week 9	Theoretical basis for data communication (Nyquist Theorem)		-
Week 10	Guided Transmission Media		-
Week 11	Wireless Transmission		-
Week 12	Communication Satellites		-
Week 13	Public Switched Telephone Network		-
Week 14	GSM Networks		-
Week 15	Review		-
		Solo Taxonomy Average	0.00

Evaluation Tools

Evaluation Tool	Weight in Total(%)
Midterm - MT	30
Quiz - Quizes	15

Assignment - Project	15
Final - Final	40
It is obligatory that students attend to their classes. Absenteeism of students shall be monitored by the relevant teaching staff. It is imperative that students attend minimum of 70% of class hours in their courses.	

#	Learning Outcomes
LO1	Describe Computer Network, Networking hardware and list basic usage scenarios of computer networks
LO2	Describing Network Layering. Compare two major reference models.(OSI & TCP)
LO3	Apply theoretical basis of data communication to network problems.
LO4	Compare Guided and Unguided mediums and describe different network types.
LO5	List and classify networking devices and calculate network subnet addresses.
LO6	Evaluate and compose networking topics as a team member and compose in term report.

#	Program Outcomes
PO1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.
PO2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modelling methods for this purpose.
PO3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.
PO4	Ability to devise, select, and use modern techniques and tools needed for analysing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively
PO5	Ability to design and conduct experiments, gather data, analyse and interpret results for investigating complex engineering problems or discipline specific research questions
PO6	Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.
PO7	Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.
PO8	Recognition of the need for lifelong learning ; ability to access information, to follow developments in science and technology, and to continue to educate him/herself
PO9	Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.
PO10	Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.
PO11	Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.