



Jordan University of Science and Technology
Faculty of Computer & Information Technology
Computer Science Department

CS342 Computer Networks
First Semester 2020-2021

Course Catalog
3 Credit Hours. This course covers networking architecture, structure, and functions. The course introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for networking.

Text Book	
Title	Data communications and networking
Author(s)	Behrouz A Forouzan
Edition	5th Edition
Short Name	Textbook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref # 1	CCNA R&S: Introduction to Networks	Cisco company	1st Edition	
Ref # 2	Computer Networks: A Systems Approach	Morgan Kaufmann	5th Edition	
Ref # 3	TCP/IP Protocol Suite	Behrouz A. Forouzan	3rd Edition	
Ref # 4	Data & Computer communications	W. Stallings	7th Edition	
Ref # 5	Computer Networking A Top down Approach Featuring the Internet	James H. Kurose and Keith W. Ross	3rd Edition	

Instructor

Name	Mr. Abedl-Rahman Almodawar
Office Location	A1 L3
Office Hours	Sun : 10:00 - 11:30 Mon : 10:00 - 11:30 Tue : 10:00 - 11:30 Wed : 10:00 - 11:30
Email	aaalmodawar@just.edu.jo

Class Schedule & Room
Section 2: Lecture Time: Mon, Wed : 11:30 - 13:00 Room: منصة الكترونية

Prerequisites		
Line Number	Course Name	Prerequisite Type
1732841	CS284 Analysis And Design Of Algorithms	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	
Week 2	Network models	
Week 3	Introduction to Physical Layer, Bandwidth utilization	
Week 4	Transmission media , Switching	
Week 5	Error Detection and Correction, Data Link Control	
Week 6	Multiple Access , Wired LANs: Ethernet	
Weeks 7, 8	Logical Addressing	
Weeks 9, 10	Network-Layer Protocols: IP, ICMPv4, and Next-Generation IP	
Weeks 11, 12	Routing: Unicast and Multicast Routing	
Weeks 13, 14	Transport Layer, Transport-Layer Protocols: UDP, TCP and SCTP	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the main usage, requirements, types, operations, and features of computer networks. [1SO1]	15%	
Discuss physical and data link layers: signals, bandwidth utilization, switching, error detection and correction, data link control and multiple access. [1SO1]	20%	

Comprehend the network access methodologies specially the Ethernet protocol. [1SO1]	15%	
Understand the logical addressing and discuss the main Network layers protocols; communication protocols and routing protocols. [1SO1]	30%	
Discuss the main transport layer protocols TCP and UDP in addition to other layers protocols such as DNS, DHCP, and IMAP. [1SO1]	20%	

Relationship to Program Student Outcomes (Out of 100%)					
SO1	SO2	SO3	SO4	SO5	SO6
100					

Evaluation	
Assessment Tool	Weight
Final Exam	50%
Mid-term exam	30%
Quizzes and Assignments	20%

Policy	
Attendance	Attendance policy is going to be determined very soon, and you will be informed as well.
Home works and Quizzes	All works MUST be YOURS. Any cheating will result in FAILING the course.
Exams	Mid-term and final exams will be determined on time.

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