

المرحلة: الثالثة

عدد الساعات الاسبوعية				اسم المادة	
عدد الوحدات	م	ع	ن	باللغة الانكليزية	باللغة العربية
6	4	2	2	Computer Networks Fundamentals	أسس شبكات الحاسوب

Weeks	Syllabus
1 st , 2 nd	Introduction, and classify the computer networks according to application, size, transmission technology.
3 rd	LANs: Topologies, CSMA/CD, Token Access protocols, and IP addressing
4 th	Connection-Oriented Versus Connectionless Service, and Service Primitives
5 th , 6 th	The ISO reference Model, and TCP/IP Reference Model.
7 th	Metropolitan Area Networks, Wide Area Networks, Internetworks, and VPNs
8 th	Digital signal (size of : text files, image files, voice files, and videos files)
9 th	Bandwidth-Limited Signals, The Maximum Data Rate of a Channel
10 th	guided transmission media, and wireless transmission

11 th	Communication satellites: Geostationary, Medium-Earth Orbit, and Low-Earth Orbit Satellites
12 th ,13 th	Digital modulation and multiplexing: Baseband, Pass band, FDM,TDM, and CDM
14 th , 15 th , 16 th	public switched telephone network: Structure of the Telephone System, DSL, and Trunks and Multiplexing, and Switching(Circuit switching & packet swishing)
17 th	cable television:
18 th , 19 th ,20 th	DATA LINK LAYER DESIGN ISSUES: Framing, Error Control, and Flow Control
21 st , 22 th	ELEMENTARY DATA LINK PROTOCOLS
23 th , 24 th	SLIDING WINDOW PROTOCOLS
25 th	Network Layer (Store-and-Forward Packet Switching)
26 th	Network layer(Implementation of Connectionless Service)
27 th ,28 th	Network layer (Implementation of Connection-Oriented Service)
29 th	Network layer(Routing Algorithms)
30 th	Network layer(Broadcast Routing)