**بسم الله الرحمن الرحيم**

**University: Diyala University**

**College: College of Engineering**

**Department: Electronic Engineering**

**Stage: 3rd**

**Lecturer name :Adham Hadi Saleh**

**Qualification: M.Sc**

**Place of work: Electronic Dept.**

**Republic of Iraq**

**The Ministry Of Higher Education**

**& Scientific Research**



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| *Course Instructor* | *ADHAM HADI SALEH* | | |
| *E-mail* | *Adham.hadi@yahoo.com.* | | |
| *Title* | *Computer network* | | |
| *Course Coordinator* | *ADHAM HADI SALEH* | | |
| *Course Objective* | *To teach 3th class students the concepts of Computer network* | | |
| *Course Description* | *The aim of this subject is to make the students ready to understand and comprehend the scientific theories and their applications related to their field of the study.* | | |
| *Textbook* | |  | | --- | | *Computer Networks by Tanenbaum, A. S.*  *Introduction to Data communication and Networking*  *Behrouz Foroozan* | | | |
| *Course Assessments* | *First semester* | *Second semester* | *Final Exam* |
| *20 %* | *20 %* | *60 %* |
| *General Notes* | *Type here general notes regarding the course* | | |

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**Course Weekly Outline**

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| --- | --- | --- | --- | --- |
| ***Week*** | ***Date*** | ***Topics Covered*** | ***Lab. Experiment Assignments*** | ***Notes*** |
| ***1*** | ***25/9/*** | ***Uses of Computer network***  ***Network Hardware***  ***Network Software*** |  |  |
| ***2*** | ***2/10/*** | ***References Models***  ***Example networks***  ***Network Standardization*** |  |  |
| ***3*** | ***9/10/*** | ***The Theoretical Basic for Data Communication*** |  |  |
| ***4*** | ***16/10/*** | ***Guided Transmission Media***  ***Wireless Transmission*** |  |  |
| ***5*** | ***23/10/*** | ***Data Link Layer Design issues***  ***Error Detection and correction*** |  |  |
| ***6*** | ***30/11/*** | ***Elementary Data Link protocols*** |  |  |
| ***7*** | ***6/11/*** | ***Sliding Window Protocols*** |  |  |
| ***8*** | ***13/11/*** | ***The Medium Access Control Sub layer***  ***Protocol Verification*** |  |  |
| ***9*** | ***20/11/*** | ***Example Data Link protocols***  ***The Medium Access Control Sub layer*** |  |  |
| ***10*** | ***27/11/*** | ***The Channel Allocation Problem***  ***Multiple Access Protocols*** |  |  |
| ***11*** | ***4/12/*** | ***Ethernet***  ***Wireless LAN*** |  |  |
| ***12*** | ***11/12/*** | ***Broadband Wireless***  ***Bluetooth***  ***Data Link Layer Switching*** |  |  |
| ***13*** | ***18/12/*** | ***Network Design Issues*** |  |  |
| ***14*** | ***25/12/*** | ***Routing Algorithm*** |  |  |
| ***15*** | ***8/1/*** | ***Congestion Control Algorithm*** |  |  |
| ***16*** | ***19/2/*** | ***Quality of Service*** |  |  |
| ***17*** | ***26/2/*** | ***Quality of Service*** |  |  |
| ***18*** | ***2/3/*** | ***The Network layer in The Internet*** |  |  |
| ***19*** | ***9/3/*** | ***The Transport Service***  ***Elements of Transport Protocols*** |  |  |
| ***20*** | ***16/3/*** | ***A Simple Transport Protocol***  ***The Internet Transport Protocols*** |  |  |
| ***21*** | ***23/3/*** | ***Domain Name System***  ***Electronic Mail*** |  |  |
| ***22*** | ***30/3/*** | ***The World wide web*** |  |  |
| ***23*** | ***7/4/*** | ***Multimedia*** |  |  |
| ***24*** | ***14/4/*** | ***Network Security***  ***Cryptography*** |  |  |
| ***25*** | ***21/4/*** | ***Symmetric-Key Algorithms*** |  |  |
| ***26*** | ***28/4/*** | ***Public Key Algorithms***  ***Digital Signatures*** |  |  |
| ***27*** | ***4/5/*** | ***Management of Public Key*** |  |  |
| ***28*** | ***11/5/*** | ***Communication Security*** |  |  |
| ***29*** | ***18/5/*** | ***Authentication Protocols*** |  |  |
| ***30*** | ***25/5/*** | ***E Mail Security*** |  |  |
| ***31*** | ***2/6/*** | ***Web Security*** |  |  |
| ***32*** | ***19/2/*** | ***Quality of Service*** |  |  |

***Instructor Signature: Dean Signature:***