

CEN 444

Computer networks

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Use [LMS.ksu.edu.sa](https://lms.ksu.edu.sa) to download lecture notes

Overview

- ☐ Course description
- ☐ Grading
- ☐ Tentative Schedule
- ☐ Reference books

1. Course Description

This course will provide students with a thorough understanding of the basic principles of computer networks,

Introductory course on computer networks and their protocols. Especially related to:

- Data link layer
- Network layer

2. Grading

❑ Midterm Exam 1	20%
❑ Midterm Exam 2	20%
❑ Homework & Project	10% (Tutorial)
❑ Quizzes	10%
❑ Final Exam	40%

3. Tentative Schedule

- ❑ Midterm 1 Exam: 29 / 10 / 2017
- ❑ Midterm 2 Exam: 3 / 12 / 2017
- ❑ Homework & Project: **in tutorial**
- ❑ Quizzes: set of 3 (random)
- ❑ Final Exam: fixed later by the administration

4. Reference Books

- A. S. Tanenbaum (**Textbook**)
 - “Computer Networks”, 4th Ed., Prentice-Hall, '03.
- J. Kurose and K. Ross
 - “Computer Networking: A Top-Down Approach Featuring the Internet” 1st Ed., Addison-Wesley, '00
- W. Stallings
 - Computer Networking with Internet Protocols;
- Richard Stevens
 - “TCP/IP Illustrated,” Vol.1, Addison-Wesley, '94. -

Keywords

- Network architectures, protocols and services,
- P2P flow control, error control,
- Framing,
- Multiple access protocols,
- LANs & WLANs,
- Routing algorithms,
- Addressing & subnetting
- Internet protocols

How to get a nice grade

- Before class
 - Read lecture notes, and find what you don't understand.
- During class
 - Find answers to your questions.
 - Find what is important.
- After class
 - Read lecture notes again.
 - We strongly suggest that you read suggested readings.

Needed Help

I am here to HELP you.
Come to see me in my office hours,
and ask questions !!!
email: rouni@ksu.edu.sa

No food, gum, drinks (including bottled drinks), or tobacco products are allowed in classrooms at any time.

Only water is allowed

CEN444 – Course Outlines

Chapters	Topic	Weeks
Chapter 1	Introduction to LANs, WANs and network topologies	2
Chapter 2	Data link layer: framing, flow control and ARQ	2
	Medium Access Control, LAN standards: Ethernet and WLAN	3
Chapter 3	LAN switching: Spanning-trees, Hubs & switches, VLANs	1
Chapter 4	Network layer: packet-switching, services: datagrams & VC, Routing algorithms	2
Chapter 5	Internetworking: encapsulation & fragmentation, IP protocol	1
	IP addressing, CIDR, subnetting & aggregation, NAT, IP forwarding, IPv6	1
	IP control protocols: ICMP, DHCP, ARP	1
Chapter 6	Internet routing: OSPF, BGP	1
	Review and evaluation	1