COMPUTER NETWORKS
CS 45201
CS 55201

CHAPTER 0
Course Overview

H. Peyravi

Department of Computer Science
Kent State University
Kent, Ohio 44242
peyravi@mcs.kent.edu
http://mars.mcs.kent.edu/~ peyravi

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Contents

- Overview

- Frequently Asked Questions

- Where Are We Headed?

Overview

What Is This Course About?

■ Network architecture.

▶ Principles and Concepts.

▶ General-Purpose Computer Networks.

■ Network protocols.

▶ Internet Perspective.

▶ LAN Perspective.

■ Distinction between architecture and implementation.

What Is Not This Course About?

- Network building and usage.

    - ▶ We will not cover how to build/use Novell Netware.

- Survey of existing protocol standards.

- Specialized networks.

- This is the first course in networking, we can't cover everything.

- Other courses.

    - ▶ CS 4/59995 Internet Engineering.
    - ▶ CS 6/75201 Interconnection Networks.
    - ▶ CS 6/75202 Adv. Computer Networks.
    - ▶ CS 6/75995 Wireless/Mobile Computing.
    - ▶ CS 6/75995 Sys. Model. & Performance Eval.
    - ▶ CS 6/75995 System Simulation.

Prerequisites

- CS 33001 Computer Organization.

- CS 4/55101 Computer Architecture.

- CS 33001 Data Structures.

Why You Should Not Take This Course

- You don't have the necessary background (prerequisites).

- You are not ready for the hard work $\implies$ 10-15 hrs/week.

  - ▶ Reading the book and references.
  - ▶ Doing the homework.

- You want to learn how to set up a network.

Text and References

■ Text: Larry Peterson and Bruce Davie, "Computer Networks A System Approach", 2nd Edition, Morgan Kaufmann, ISBN 1-55860-514-2.

■ References:

  ▶ Andrew Tanenbaum, "Computer Networks", 3rd Edition, Prentice Hall, ISBN 0-13-349945-6, 1996.

  ▶ William Stallings, " Data and Computer Communications", 5th Edition, Prentice Hall, 1997.

Office Hours

■ M 5:00–6:00 pm
T-R 8:30–9:00 pm and by appointment
peyravi@mcs.kent.edu
http://mars.mcs.kent.edu/~ peyravi

■ 262 MSC,

■ Phone 672-9062 (off-campus) 2-9062 (in-campus).

■ Graduate teaching assistant $\Longrightarrow$ will be announced soon.

Course Evaluation

■ First Exam (50%) $\Longrightarrow$ June 28, 2001

■ Final (50%) $\Longrightarrow$ July 14, 2001

Frequently Asked Questions

■ Do I give make up tests?

▶ No, a student can not skip a test unless (s)he has a justifiable excuse with proper documentation.

■ Do I curve your grade?

▶ Your grade depends on the performance of the rest of the class.

■ *Any other question?*

Where Are We Headed?

OSI Ref Model	TCP/IP Protocol Stack	TCP/IP Ref. Model	To be covered
Application	FTP HTTP NV Real-time	Application	MPEG JPEG Security
Presentation			
Session	TCP UDP	Transport	TCP UDP Congestion control Traffic Management
Transport			
Network	IP	Internetworking	IPv4/IPv6 Routing Swiching ARP Forwarding
Data Link	Ethernet Token Ring FDDI PAcket Radio ATM	Host-to-Network	Framing MAC protocols Encoding Error detection
Physical			

■ We cover this course bottom-up.