CIS 677
Computer Networks

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Overview

- How
- What
- When
- Why
How am I going to grade you?

What are we going to cover?

When are you going to do it?

Why you should not take this course?
Grading

- Quizzes (Best 2 of 3) 50%
- Class participation 10%
- Homeworks 20%
- Labs 20%
Answers to Frequently Asked Questions

- Yes, I do use “curve”. Your grade depends upon the performance of the rest of the class.
- All homeworks are due at the beginning of the next class.
- All late submissions must be preapproved.
- All quizzes are open-book and extremely time limited.
- Quizzes consist of numerical as well as multiple-choice (true-false) questions.
- There is negative grading on incorrect multiple-choice questions.
- First few chapters are quantitative (lots of calculations)
- Everyone including the graduating seniors are graded the same way.
- If you have any questions about grading, please ask now.
Prerequisite

- CIS 675: Computer Architecture
  - Memory
  - System bus
  - Interrupt
  - Power
  - Voltage
  - Current
  - Peak and RMS values
  - Sine curve
  - Amplitude, Frequency, Phase
- CIS 459.21: C Programming
Tentative Schedule

- 10/1/96  Chapter 1: Introduction
- 10/3/96
- 10/8/96*  Chapter 2: The Physical Layer
- 10/10/96
- 10/15/96*  Quiz 1
- 10/17/96  Chapter 3: The Datalink Layer
- 10/22/96*
- 10/24/96
- 10/29/96
- 10/31/96  Chapter 4: The Medium Access Layer
Tentative Schedule (Continued)

- 11/5/96 Quiz 2
- 11/7/96*
- 11/12/96 Chapter 5: The Network Layer
- 11/14/96
- 11/19/96 Chapter 6: The Transport Layer
- 11/21/96 Final Lab due
- 11/26/96 Quiz 3
- 11/28/96 Thanksgiving Holiday
- 12/3/96* Last class
- 12/5/96 Graduating Seniors Grades Due

* Class conducted by the assistant
What Is This Course About?

☐ This is a course on Networking Architecture
☐ This is not a course on network building or usage
☐ You will be able to understand protocols
☐ You will not be able to build or use a Novell Netware network
☐ An example of the difference between architecture and implementation is the computer architecture course and a course on Intel Pentium Chip.
☐ An example of the difference between implementors and users is that of Pentium chip designers and the rest of us.
What Is This Course About? (Continued)

- You will learn about networking concepts that will help you understand networking jargon:
  - TCP/IP
  - Window Flow Control
  - Cyclic Redundancy Check
  - Parity
  - Start and Stop Bits
  - Baud, Hertz, and Bits/sec
  - Algorithms for determining packet routes
- This is the **first** course on networking.
  We cannot cover everything in 10 weeks.
Why You Shouldn’t take this course?

- You aren’t ready for the hardwork
- You don’t have 15 hours/week
- You don’t have the background
- You just want to sit and listen
- You are not ready to take the initiative
  Only key concepts will be covered in the class. Students are expected to read the rest from the book.
- This does not cover what you want
Office Hours

- Tuesday: 10:00 to 11:00 AM
  Thursday: 10:00 to 11:00 AM

- Office: 297 Dreese Lab, 2015 Neil Ave

- No office hours on 10/8, 10/10, 10/15, 10/28, 11/7, 12/3
Summary

- There will be a lot of self-reading
- Goal: To prepare you for a career in networking
- Get ready to work hard
Quiz 0: Prerequisites

True or False?

1. A system with 32kB memory can hold only 16000 ASCII characters
2. An example of an I/O bus is PCI which connects a Pentium processor with its memory.
3. An example of a system bus is SCSI which connects a PC system with its disks.
4. Interrupts are used by CPU to stop an ongoing I/O.
5. A DC current of 4 Ampere at 5 Volts will require 4/5 Watts of power.
6. An RMS value of 100 Volts is equivalent to a peak value of 141.4 V.
7. For \( I = A \sin(2\pi ft + \phi) \), the amplitude of the current \( I \) is \( A \).
8. For \( I = A \sin(2\pi ft + \phi) \), the frequency is \( f \).
9. If \( x \) is 0, then after \( x++ \), \( x \) will be 1.

 Marks = Correct Answers _____ - Incorrect Answers _____ = ______