Course Overview

Outline
Administrative Information
Topics and Schedule
Assessment

Administrative Information

• Welcome to CSE30264!
• Instructor: Christian Poellabauer
• How to contact me:
  – before/after class
  – office hours: Tuesday 1pm-2pm, Thursday 11am-12pm (and by appointment)
  – 354 Fitzpatrick
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• TA: Nadine Shillingford
  – office hours: Tuesday/Thursday 10am-11am (and by appointment)
  – 214 Cushing
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Textbook


Administrative Information

- [http://www.cse.nd.edu/~cpoellab/teaching/cse30264](http://www.cse.nd.edu/~cpoellab/teaching/cse30264)
- Course information
- News
- Assignments
- Schedule
- Slides
Assessment

- Goals of course:
  - learn fundamental computer network principles
  - prepare for advanced CSE courses
    - homework assignments, exams
  - learn algorithms, protocol, etc., that drive the Internet
    - homework assignments
  - get hands dirty with implementations and experiments
    - programming assignments
  - learn to solve problems in teams
    - team-based programming assignments

Grading

- 4 homework assignments (4x10%):
  - deepen understanding of principles, practice protocols, algorithms, etc.

- 4 project assignments (4x10%):
  - deepen understanding of principles, practice programming, learn how to build distributed programs, learn how to perform experiments, learn how to present results

- Midterm and final exam (10%, 10%):
  - open book, solve problems under time pressure (aka “make ‘em sweat”)

Other Items

• Academic Honor Code
• Distributed systems and networking are extremely important!
• Look for team members, let me know if help needed. Team size = 2-3 (<2, >3 possible if good reason)
• Participate! Ask questions! Use resources!
• Enjoy the show!

Introduction

Outline
  Computer Networks Overview
  Statistical Multiplexing
  Inter-Process Communication
  Network Architecture
  Performance Metrics
  Implementation Issues
Applications

- Email
- Audio/Video:
- youtube.com
- File sharing
- WWW: www.cse.nd.edu
Building Blocks

- Nodes: PC, special-purpose hardware…
  - hosts
  - switches

- Links: coax cable, optical fiber…
  - point-to-point
  - multiple access

Switched Networks

- A network can be defined recursively as...
  - two or more nodes connected by a link, or
  - two or more networks connected by a node
Connect The Dots