

# CSE342:

## Fundamentals of Internetworking

### Instructor:

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- ❑ Office hours: on web

### Others:

- ❑ Graduate/Lab Assistant:  
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### Students:

- ❑ Little or no networking background
- ❑ Can program in C/C++
  - Have taken CSE109/411
- ❑ Juniors/Seniors/Graduate
- ❑ Interested in learning:
  - How the Internet works
  - How to program network apps

# Offline course resources

- ❑ *Computer Networking: A Top-Down Approach Featuring the Internet (5<sup>th</sup> or 6<sup>th</sup> Ed)*
  - by Kurose and Ross (2010)
- ❑ *TCP/IP Sockets in C: Practical Guide for Programmers (2<sup>nd</sup> Ed)*
  - By Donahoo and Calvert (2009)
- ❑ *C: A Reference Manual (5<sup>th</sup> Ed)*
  - By Harbison and Steele (2002)
  - Optional, but you need to have some C (not C++) reference book

# Online course resources:

- ❑ Course home page:
  - <http://www.cse.lehigh.edu/~chuah/course/cse342/>
  - Lecture notes, labs, syllabus, announcements, links to other resources, etc.
- ❑ Primary textbook:
  - <http://www.aw.com/kurose-ross>
  - Register for online access to supplementary materials
- ❑ CourseSite
  - Online discussion, solutions, turn in homework

# Workload and grading

## Course organization:

- ❑ Three lectures
  - Here, Packard 360
- ❑ One lab (2 hours)
  - Thursdays
  - In PL122 (Sun lab, default)
  - Or occasionally PL112 (Sandbox lab)

## Workload:

- ❑ Homework, pop quizzes
- ❑ 2 hourly quizzes + final exam
- ❑ Laboratory exercises
- ❑ Programming projects

## Grading (tentative):

- ❑ 20% Homework, participation
- ❑ 25% Semester projects
- ❑ 30% Two hourly quizzes
- ❑ 25% Final exam

# Projects and policies

## One major project:

- ❑ Laboratory exercises will prepare you
  - learn details of programming interface
- ❑ Demonstrate your project in lab
- ❑ Will be fun!

## Three minor projects

- ❑ Primarily in C
- ❑ Reinforce concepts

## Policies:

- ❑ Assignments due by midnight
  - 10% drop per day when late
  - Not accepted after answers posted
- ❑ **Work must be yours alone**
  - See syllabus for plagiarism statement

# Course outline

## Syllabus:

- ❑ We will follow the text pretty closely
- ❑ Covering network applications all the way down to bits on a wire (or in the air)
- ❑ A syllabus and a schedule are online

## Ready to begin?

- ❑ Questions?
- ❑ Easy homework:
  - Read chapter 1
  - Think about a question about the material you read that you want to ask, or want to have discussed in class

# Compared to past years

- ❑ C intro/review time (starting today!)
- ❑ Chapter slides online ahead of time
- ❑ Less formal class time
  - Try to avoid lectures
  - More problem solving
  - More student involvement
  - More discussion
- ❑ Keep hands-on lab time
- ❑ Retain fun final project

What networks do you use?



# What is the Internet?

# How do you connect to the 'net?

# Compare to other networks?

What use is a computer without  
networked communication?

# Networked applications

- What is your favorite / most often used?