Introduction to Computer Networks

CIS432/532
CRN: 11568/11579
Fall 2015
http://www.cs.uoregon.edu/classes/15F/cis432

Admin Information

• Instructor: Reza Rejaie
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  – Office: Deschutes 328
  – Office Hour: Tue 3:30p-5p (and anytime I am in my office)

• GTF: Soheil Jamshidi
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  – Office: Deschutes 331
  – Office hours: Wed 2-3p, Thu 12-1p

• email lists: 432list, 532list@cs.uoreogn.edu
• All announcements are sent to these email lists and then posted in class web page.
  • Using your email address on duckweb
Why you should take this course?

• This course covers:
  – Principles of computer networks
  – Network protocol stack
  – How to design & evaluate network protocol

• This course teaches you a valuable set of skills/concepts that helps you
  – perform network programming or design network protocols (find a good job!)
  – participate in networking research (go to a good graduate program!)

Pre-req & textbook

• Prerequisites:
  • CIS313 (intro to data structure),
  • CIS315 (intro to algorithm),
  • CIS415 (OS),
  • Basic probability concepts

  – Is it useful to put a copy of the book on reserve at the library?
  – Some copies of the latest/earlier eds to borrow from me!
  – You should deal with minor differences between different editions.
Grading

**Undergraduate**
- Homework: 15%
- Midterm: 25%
- Programs: 35%
- Final: 25%

**Graduate**
- Homework: 5%
- Midterm: 25%
- Programs: 35%
- Final: 25%
- Paper Revs: 10%

- Increased the points for programming projects
- We might have a couple of in-class quizzes.
- There might be minor extra credits in hw and progs
- We post grades in each components online using your selected alias (if you opt in).

10/1/2015

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Lectures & Exams

- Class schedule on the web site shows the covered topics in each class
- Examine the workload?
- Lecture notes are posted online after each chapter
- Class participation is required!!
- Lectures are interactive, Please ask questions!
- Exams are closed-book but you can bring a sheet of notes
  - You don’t need to memorize anything
  - You need to learn the main concepts & how to apply them
- Exams test your ability to apply learned concepts in the context of a particular problem.
  - HWs provide exam-level questions to help you prepare (make sure to spend time on your HWs)

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Homework Assignment

- 4 homework assignments, one every other week
- Undergrads and grads can work on homework assignment in a group of 2
- Write the name of both group members on your homework
- Discuss the problems with others but write up your own solutions.
- Dividing the problems between you may affect your ability to learn the material.
- Submit a decent (organized, stapled) HW!
  - 10% penalty for un-stapled/unidentified/unreadable HWs

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Homework Assignment (con’t)

- Homework is due in class and no late assignments will be accepted.
  - Turn in partial work if you are not finished.
- Best option: hand in your homework in class to me before we start the lecture.
  - Please do not slide your work under the door; it may get lost.
- We will post the solutions right after the submission deadline
- We will return graded homework in a week
Programming Assignments

• Substantial part of the course
  – Requires a significant fraction of your time
• Focus on socket programming & protocol design
• Undergrads can work on program assignments in group of 2, grads should work individually
• Programs must be written in C/C++ or Java.
  • Your program should compile and run on department's server (ix-trusty).
• Instructor or GTF can not spend time on material that is not related in computer networks (i.e. debugging your code, basic programming questions).

Extra components for grad students

• Six classic papers to read and submit technical reviews
  – Trains you in reading/reviewing research papers
  – Covers basic topics & serves as an intro to cis632
  – Reviews should be submitted online before the specified deadline
Issues to Consider

- This course has a heavy load. Please adjust your overall workload accordingly
  - See the posted class schedule for more details and timing conflicts
- Lots of material to cover => class has a fast pace
  - If you fall behind, it might be hard to catch up
  - Extending submission deadlines is not really helpful
- Helpful suggestions:
  - Read the relevant chapters of the text book as we cover them.
  - Start early and allocate plenty of time to hw & especially programming assignments.
  - Actively follow and participate in class discussion.
  - Ask questions as often as you need in class & during office hours.

Final Remarks

- This class requires lots of work, but it could/should be lots of fun as well because
  - informal class discussions
  - You learn lots of exciting skills/concepts that can apply them in practice, e.g. implement a web server
  - What you learn, would help you in your upcoming job interview, or research project
- The time you invest in reading and coding in this class is a valuable, long-term investment!!
- We invite the best u/grad students in class to join our research group in Winter term.
- If you have any suggestion that helps you better learn the material (perform better in this class), let me know any time throughout the term!
If you are not a senior, I suggest that you delay this class.

If you have not registered yet, please see me after class!

Questions?