CSCI 4760 - Computer Networks
Fall 2016

Instructor: Prof. Roberto Perdisci
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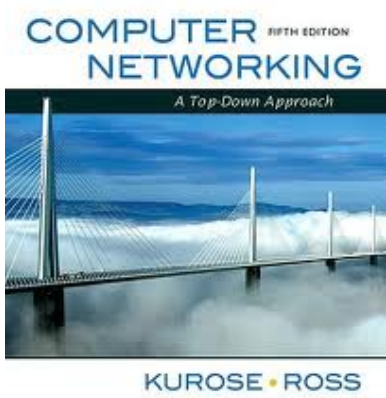
CSCI 4760/6760

- What is the purpose of this course?
  - undergrad-level computer networks course
  - Focuses on understanding how the Internet works:
    - How do Internet nodes communicate with each other?
    - What are the network protocols that make this complex interconnection of computer networks exchange data in a reliable way?

- We will follow a top-down approach
  - Understand how Internet applications exchange information
  - The client-server paradigm
  - Transport protocols
  - Reliable communications over non-reliable packet switching
  - Network Layer, Routing
  - The Link Layer and (some) Physical Layer
  - Security
  - Multimedia Protocols and Wireless (if enough time is left…)

Books

- **Textbook:** *Computer Networking: A Top-Down Approach Featuring the Internet, 6/e*
  - James F. Kurose and Keith W. Ross
  - Addition Wesley, ISBN: 0-13-607967-9



- **Recommended Readings:** *TCP/IP Illustrated, Volume 1: The Protocols*
  - W. Richard Stevens
  - Addition Wesley, ISBN: 0-201-63346-9

- **Other resources:** *The TCP/IP Guide*
  - Charles M. Kozierok
  - Available online at: http://www.tcpipguide.com/free/index.htm

- **Recommended Readings:** *TCP/IP Sockets in Java: Practical Guide for Programmers*
  - Michael J. Donahoo and Kenneth L. Calvert
  - http://cs.baylor.edu/~donahoo/practical/JavaSockets/textcode.html

How will students be evaluated?

- Class participation: U,G=5%
- Development Projects: U=20%,G=15%
- Other Assignments: U=15%,G=10%
- Paper Review and Presentations: U=N/A, G=10%
- Midterm Exam = 30%
- Final Exam = 30%

Class Participation

- Class participation is required
  - Students will need to sign the attendance log at the beginning of sampled lectures
- Not all topics discussed during lectures are covered in the textbook
- Lectures will be interleaved with assignments/projects discussions

Development Projects

- Students will be required to complete a number of development projects
  - Mainly related to socket programming in Java/Python/C, but not only
  - Some projects must be conducted individually
  - Others may be conducted in pairs (I will indicate which ones), in which case the evaluation will be the same for both students
  - Most projects will be evaluated with a ***binary criteria***
    - It works correctly => X points (X depends on project difficulty)
    - It does not work (does not compile, fails tests, etc.) => 0 points
    - I will announce possible exceptions to this rule for specific projects
  - Reference System is Linux
    - You will be assigned a VM where you can develop and test your code

Assignments

- Other assignments will include
  - Pencil-and-paper homework
  - Hands-on network experiments / analysis
  - Points: between 0-10

- Lateness Policy
  - Students will be allowed a maximum of **one late submission** throughout the semester
  - Max 3 days delay from deadline
  - All future late assignments will be given 0 points

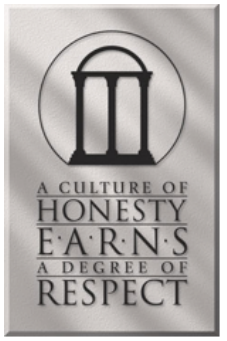
Exams

- Likely 2 Midterm Exams
  - Will cover all topics discussed up to one week before the exam
  - Points: between 0-50 each
- Final Exam
  - May cover **all topics**
  - Main focus on second part of the course
  - Will include some questions about most important topics covered in the first part of the course
  - Points: between 0-100

Overall Grade

- Weighted sum of all points
  - S = 100*(0.05*c/C+0.15*a/A+0.15*p/P+0.30*m/M+0.30*f/F)
    - S >= 90% = A S >= 85% = A-
    - S >= 80% = B+ S >= 75% = B
    - S >= 70% = B- S >= 65% = C+
    - S >= 60% = C S >= 55% = C-
    - S >= 40% = D S < 40% = F
  - c = number of classes attended (max: C)
  - a = overall assignments points (max: A)
  - p = overall projects points (max: P)
  - m = sum of midterm exam points (max: M = 100)
  - f = finale exam points (max: F = 100)

Academic Integrity



- Every student must abide by UGA's **academic honesty policy**

- Dishonest behavior including cheating, copying, or forging experimental results **will not be tolerated** and will be reported according to UGA's policies

- Specific to Development Projects:
  - You are ***allowed*** to search for examples of network programming and related documentation
  - You are ***not allowed*** to reuse other people's code (no cut and paste!)
    - Use examples to understand how the code works and then **write your own code!**

Logistics

- Course Website
  - http://cobweb.cs.uga.edu/~perdisci/CSCIx760-F16/
  - I will post info on topics covered in class, assignments, projects, and related deadlines

Logistics

- As a reminder… Classes are on
  - Tuesday and Thursday at 2pm-3:15pm
    Boyd GSRC – Room 306
  - Wednesdays at 2:30pm-3:20pm,
    Boyd GSRC – Room 306

- Office hours
  - Wednesdays, 3:30pm-5:30pm
  - Boyd GSRC Room 423 or 537
  - Please let me know in advance if you are coming
    - sometimes I'm in my lab (Boyd 537), if you let me know you are coming it will be easier to find me without delay

- TA
  - TBD

Questions?