Syllabus
CSCI 561: Computer Networks
Fall 2010

Instructor: Dr. Paul Ruth
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Course:

Catalog Description. Analysis of loosely coupled computer communication, communication protocols, and network services; an open systems interconnection model is presented and compared to selected examples of computer networks. Prerequisite for this course may also be satisfied by equivalent coursework as approved by the department. Corequisites: None, Prerequisites: CSCI 423 or CSCI 501 or full graduate standing in computer science, Credit(s): 3

Lecture MWF 1:00PM - 1:50PM, Weir 106


Outcomes/Objective: Upon completion of this course students should be able to:
• understand the computer network concepts including networking protocols, network stacks, and routing.
• implement networking applications.

Topics:
• Low-level Networking (Ethernet)
• Internet Protocol (IP), Addressing, Forwarding
• Protocol Layering
• User Datagram Protocol (UDP)
• Reliable Transmission Control Protocol (TCP)
• Routing
• IP Switching
• Domain Name System (DNS)
• Socket Programming
• Peer-to-Peer Networking
Grading:

**Exams** 60%. Two exams plus an optional comprehensive final.

**Projects:** 40%. Four projects listed below.

- Project 0: Basic C Programming
- Project 1: Sending an Email
- Project 2: Web Server
- Project 3: P2P Protocol

Additional Notes:

- No makeup exams.
- The final exam is optional and comprehensive. You may use the final exam to replace any one of the other exams.
- There is no predetermined grading scale. Often a final grade greater than 90 would be an A and between 80 and 90 would be a B. However, I will adjust this scale to the particular class and will consider participation and intellectual initiative in borderline cases.
- Any problems with graded work must be brought to the instructor’s attention within one week of the work being returned in class. It is your responsibility to pickup graded work returned during classes that you did not attend. Grades will not be modified after the one week period.
- I will return your email within 24 hours of receiving it. This means that project questions sent within 24 hours of the time a project is due may not be answered until after the project due date/time.
- All non-grade information will be posted on the course website. You must check the website as I will be posting important information about the course.