ECE361H1S Computer Networks I

This is a kernel course in Area 5.

Course description in the calendar

Layered network architectures; overview of TCP/IP protocol suite. Introduction to sockets; introduction to application layer protocols. Peer-to-Peer Protocols: ARQ; TCP reliable stream service; flow control. Data Link Controls: Framing; PPP; HDLC. Medium access control and LANs: Aloha; Ethernet; Wireless LANs; Bridges. Packet Switching: Datagram and virtual circuit switching; Shortest path algorithms; Distance vector and link state algorithms.

Prerequisite: STA286H1 or ECE302H1
Co-requisite: ECE302H1. (Students must take the co-requisite, ECE302H1 in the same semester as ECE361H, OR in a semester prior to taking ECE361H.)

Instructor

- Professor Valaee

Teaching Assistants

- Sai qian Zhang <sai.zhang@mail.utoronto.ca>
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Lectures

- Tuesdays, 9:00-10:00, in MC254
- Thursdays, 9:00-10:00, in MC254
- Fridays, 9:00-10:00, in MC254
Tutorials
- TUT01: Tuesday 11:00-12:00, in GB404 (starting September 9, 2014)
- TUT02: Tuesday 11:00-12:00, in GB405 (starting September 9, 2014)

Labs
- PRA01: Wednesdays 15:00-18:00, in GB251 (starting Sept. 10, alternating weeks)
- PRA02: Wednesdays 15:00-18:00, in GB251 (starting Sept. 17, alternating weeks)
- PRA03: Mondays 15:00-18:00, in GB251 (starting Sept. 15, alternating weeks)

Office Hours
- Thursdays, 10:15-11:00, in SFB600

Textbook

Complementary Reading List

Wireshark Labs
Students will form groups of two. Each group will submit only one report. The mark of the report will be given to both group members. Students will hand in five (5) reports. Submission deadlines are Fridays at 5:00pm. The reports should be dropped in the course note box on the fourth floor of Bahen Centre for Information Technology.

Programming Labs
Students will form groups of two (the same group as the Wireshark labs). We will have six lab sessions. In the first five lab sessions, students will design five different networking software. The sixth lab is dedicated to a project. The project will use the code developed in the first five sessions. All programming labs will use Java language. Detailed information about the labs is available on blackboard.
**Tutorial Quizzes**

In each tutorial session, the TA will solve some sample exam problems, and then will give a short multiple-choice quiz. We have planned 13 tutorial sessions. There will be a total of 10 quizzes during those tutorials. However, students are allowed to skip two tutorial sessions. We will only use the marks from 8 sessions for each student. Please refer to the detailed list of tutorials and the coverage of each tutorial for more information.

**Evaluation**

- Final Exam (45%)
- Midterm (25%)
- Tutorial Quizzes (10%)
- Wireshark Labs (5%)
- Programming Labs (15%) = 2% (Lab 1) + 2% (Lab 2) + 2% (Lab 3) + 2% (Lab 4) + 2% (Lab 5) + 5% (Project)