COSC 6397 Computer network system laboratory

<u>Instructor</u>: Rong Zheng (PGH 565)
<u>TA</u>: Song Wei (PGH 311)
<u>Time</u>: Wed 4 – 7pm
<u>Location</u>: SEC 205

<u>Objectives</u>:
The main objective of the network system labs is to further the understanding of the network protocol stack and the state-of-art networking practices through semester long hands-on projects. The secondary objective is to instill good programming styles, software development practice, team working and presentation skills.

<u>Prerequisite</u>:
COSC6377 or equivalent

<u>Tentative schedule</u>:
- Week 1: Introduction to Linux environment
- Week 2: Installation and configuration of Linux (handout of 1st mini-project)
- Week 3: Project development practice
- Week 4, 5: Socket programming (handout of 2nd mini-project)
- Week 6: Packet capture and injection library
- Week 7 – 13: Project demo and reports

<u>Tentative Projects</u>: (each project group 4 -5 students)
- Traffic generator
- Distributed sniffer and WiFi diagnostic
- Localized network coding in mesh networks
- Mesh manager

Grading:
- Two mini-projects 20%
- Iteration demo and progress 40%
- Incremental deliverable 10%
- Final deliverable 10%
- Final demo and presentation 10%
- Peer review 10%

No cheating will be tolerated on any graded assignment: **what you turn in must be your own work**. The minimum penalty for any transgression will be an **F grade** for the course.