

## Spring 2007 Course Announcement

### Com S 610 WZ: Security and Privacy Issues in Wireless Networks

**Instructor:**

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**Co-instructor (senior graduate student):**

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**Class time, location:** TBA (two meetings or one long-meeting per week)

**Credits:** 3

**Course Summary:** This course will provide a forum for the graduate students who are interested in wireless networking and security to learn the state-of-the-art of the security and privacy research on wireless networks, and explore future research topics. A tentative outline is as follows:

1. Brief introduction to applied cryptography, wireless networks, integrated wireless networks, and recent efforts on future Internet design.
2. Security and privacy research on individual wireless networks (including cellular networks, wireless LAN, wireless mesh networks, mobile ad hoc networks, wireless sensor networks, RFID, etc.)
3. Security and privacy research on integrated wireless networks.
4. Specification/verification of security and privacy protocols for wireless networks.
5. Security and privacy research for future Internet.

The instructors will lecture the first part. For parts 2-5, students will read, write critiques for, and present a selected list of cutting-edge papers. Students will develop term papers. The term paper could be a research paper including literature survey, problem statement and solutions, or a comprehensive literature survey on a specific topic within the scope of this course. Up to two students may collaborate on a research paper, while a survey paper must be completed by only one student. Students are encouraged to discuss with the instructors frequently on topic selection, problem definition, and solution development. No textbook. Handouts will be posted on course website. Paper list will be announced when class begins, or earlier. Students are also welcome to audit the course if willing to present papers and participate in class discussion.

**Course Grading:**

1. Technical reviews of the assigned papers (20%): Each student must write and submit critiques (one or two pages) for about 10 papers selected from the announced paper list for reading; the reviews must show the student's understanding of the papers; the reviews must be submitted before the related papers are presented.
2. Presentations (about 3 papers for each student, depending on the size of the class): 35%
3. Class participation: 5%
4. Term paper
  - a. Option I – research paper 40%
    - i. Literature survey and Problem definition – 20%
    - ii. Solutions – 20%
    - iii. Bonus (based on the quality of the paper)
  - b. Option II – survey: 40%

**Students interested in the course please send an email to Dr. Zhang. Please also forward to him any questions regarding the course.**