# EEE/CSE 598: Special Topics in Network Security–Fall 2010

More details at http://wins.lab.asu.edu/ece789/ece789.html

## CONTACT INFORMATION

Instructor: **Dr. Yanchao Zhang**
Phone: TBD
Class time: M/W/F 10:45–11:35 AM
Class location: Tempe–SCOB302

Instructor home page: wins.lab.asu.edu/yczhang.html
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Office hours: TBD

## DESCRIPTION

This course focuses on selected hot topics in network security and is intended for Master or doctoral students interested in network security. Through this course, students can learn the state of the art and open problems in Internet and wireless security, thus enhancing their potential to do research or pursue a career in this emerging area. This course is structured as a research seminar where most recent papers from leading conferences & journals will be presented by a student or the instructor. **Topics may include (but not limited to)**: Distributed Denial-of-Service (DDoS) attacks; Worm/Spam detection and prevention; Botnets detection and defense; Anonymous communications; Telecom network security; Peer-to-Peer network security; Social network security and privacy; Wireless LAN security; Security of wireless ad hoc networks; RFID network security. This course has been taught three times at New Jersey Institute of Technology where the instructor worked and was consistently highly received with very good evaluations.

## PREREQUISITES

Students are expected to have a good understanding of computer and wireless networks. Prior background in cryptography and security is not required. The instructor will cover basic knowledge in cryptography and security which is sufficient to understand the course materials.

## TEXTBOOK

No textbook is required for this course. Lectures will be mainly based on most recent papers from leading conferences & journals in the area of Internet and wireless security.

## HOMEWORK/PRESENTATION/TERM PAPER POLICIES

**(1) Homework**: Three or four research papers will be assigned for each week. Students are required to read all of them and be able to competently discuss the material in class. In addition, each student should submit a one-page summary for one of the assigned papers, which should contain a one-paragraph description of the paper and descriptions of three strong points plus three weak points discovered in the paper.
**(2) In-class presentation**: Each student is expected to present no more than two assigned papers to the class during the semester. At the end of a lecture, the instructor will grade the presentation, and the average presentation score will be used in the final grading.
**(3) Term paper:** Each student need complete a survey paper or a research paper on one of the topics discussed in class or others approved by the instructor. Students are encouraged to combine this effort with their current research for a Ph.D. dissertation or Master's thesis.

## GRADING

The grade will be based 10% on class participation in discussing papers, 20% on homework (paper summaries), 20% on paper presentations, and 50% on the term paper. In addition, all students must attend the lectures. Missing one lecture costs 1 point of the final grade in 100 scale. Overall average > 90% is guaranteed an A, > 80% is guaranteed a B, etc.

## WARNING

*You are not supposed to exploit any technique discussed in class to break into any computer system or network that is not your own.*