Fall 2009

CS 499/699: Special Topics in Information Security

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Course Description

This course gives a comprehensive study of security vulnerabilities in information systems and the basic techniques for developing secure applications and practicing safe computing. Topics include: Conventional encryption; Data Encryption Standard; Advanced Encryption Standard; Hashing functions and data integrity; Basic Number Theory; Public-key encryption (RSA); Digital signature; Security standards and applications; Access Control; Management and analysis of security. After taking this course, students will have the knowledge of several well-known security standards and their applications; and the students should be able to increase system security and develop secure applications.

Lecturer
Meilin Liu
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Class
- Tuesday / Thursday 6:05 - 7:45 pm MC JC (Josh Center) 191

Text

Reference

Prerequisite: Computer Organization (CEG 320), and Data Structures and Algorithm (CS 400) or with the permission of the instructor

Required Work (Subject to change)
Homework 20% (5 homeworks)
Quizzes 10% (4 quizzes)
Project 25% (1 to 2 projects)
Midterm 20%
Final Exam 25%
Grading
The base scale is: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59. This is the highest
requirement that will be used. The scales may be lowered or revised if necessary. The graduate
students need to finish one extra programming project or write a paper critique for one security-
related paper.

Schedule
(The schedule may subject to change.)

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Policies and Notes

- Attendance: Attendance is not required, but class participation is important. For your own
  sake, you should not miss any of the classes. If you are not a regular attendee, it will be your
  responsibility to seek out what material was covered in the lecture and learn it. Most of my
  exam questions will be taken directly from ideas covered during the lecture, so it greatly
  helps if you attend!
- I will utilize webCT (wisdom.wright.edu) to post updates to the course, solutions,
  assignments, announcements, schedule, etc. Get in the habit of checking it regularly.
- If you are going to miss an exam, for any reason, discuss it with me in advance. If it is an
  emergency situation, please notify me as soon as possible.
- A penalty of 10% deduction each day for late submission of homework will be given and
  after 5 days, 0 point will be given.
- If you need to meet me other than my office hours, better make an appointment by email or
  by phone beforehand.

Academic Misconduct
in this class, the only way to truly learn the concepts to is do the work yourself. I encourage
working with other people on the course concepts. When you begin to do the homework and the
projects, do it on your own.