1 Prerequisite

A grade of C or better in both CS 317 and CS 201.

2 Instructor Info

Instructor: Christine Cheng, EMS 1011, 229-5170, ccheng@uwm.edu.
Office Hours: Thursdays 1:00-2:00pm or by appointment.

3 Textbook:


4 Objectives:

At the end of this class, you should

1. know the basic components of computer security,
2. have a good understanding of symmetric key and public key cryptosystems, and cryptographic hash functions,
3. be familiar with how security threats arise, are classified and dealt with, and
4. understand the principles for designing and implementing security mechanisms in conventional operating systems, networks and the web.

5 An Outline

- Introduction to Fundamental Concepts and Cryptographic Concepts, Sections 1.1, 1.3
- Access Control Methods, Section 1.2
- Operating Systems Security, Chapter 3
- Malware, Chapter 4
- Network Security, Chapters 5, 6
- Web Security, Chapter 7
- Cryptography, Chapter 8
- Security Models and Practice, Chapter 9
6 Blogs, HWs, Exams, and Grading Scheme

Grades will be posted on the D2L page of this class.

Blogs. Each student will be required to write two blog entries – one during the first half of the semester, another one during the second half of the semester. Details will be posted at the end of the first week.

Homeworks. Biweekly homeworks will be posted on the class webpage on a Thursday and will be due two weeks later in class unless otherwise stated. No homeworks will be accepted after the deadline.

You are allowed to collaborate with your peers but you must write up the solutions on your own and cite your collaborators. If you obtained your solution from a book, website, etc., you must indicate the title of the book and page no., the address of the website, etc. Deductions will be made if this policy is violated.

Projects for graduate students. If you are taking the class as a graduate student, you will be required to submit a project by the end of the semester.

Exams and finals. There will be one midterm exam and one final exam. The final exam will be held on Dec. 18, Tuesday from 12:30 to 2:30 PM in the same room.

A tentative grading scheme:
For undergraduates. Blogs 10%, Homeworks, 30%, Midterm exam 30%, Final Exam 30%.
For graduate students. Blogs 10%, Homeworks, 20%, Midterm exam 30%, Final Exam 30%, Projects 10%.
Active participation in class will be taken into account when your final score is in between two letter grades (e.g., between a B and a B-, etc.).

In case of an emergency, contact the instructor at the earliest possible opportunity via e-mail or phone. No arrangements will be made for missed exams unless these rules are followed, and an acceptable evidence of legitimate emergency is submitted.

7 Academic Misconduct

Copying someone else’s work in a homework or an exam is academic dishonesty. It will be dealt with severely. For more information, check the website www4.uwm.edu/acad_aff/policy/academicmisconduct.cfm.