Course Description: This course introduces students to the basic security concepts and applied cryptography. Students will also learn computer and network attacks and defense, and case studies of the security mechanisms and architectures deployed in practical networks/systems. Topics include:

- Basic security concepts
- Cryptography basics: secret key cryptography, hashes and message digests, public key cryptography
- Computer security: vulnerabilities and exposures, program security, operating system security
- Network security: authentication and public key infrastructure, security protocols, SSL/TLS, IPSec/VPN, firewalls, web security, DDoS attacks and defense
- Wireless security

Prerequisite: This course assumes prior knowledge of computer systems and networks. An understanding of programming is a plus.


Expectations: Students are expected to attend each lecture and read the reading assignments. All homework assignments, projects, and exams should be worked independently.

Laptop Policy: No laptop use in the classroom!

Grading:

Homework ........................................ 20%
Project ........................................... 20%
Midterm Exam ................................. 20%
Final Exam .......................................... 40%

There are 4 homework assignments which will be posted on our course website and announced in class. Assignment is due at the beginning of the class on the specified due date. If you will miss the class for homework submission, you should either submit it earlier or ask a classmate to submit it for you. *No late assignments will be accepted.*
Project: A course project will be assigned after the midterm exam and a list of topics will be posted on the course website. Discussion is allowed among students but each student must write his/her own project. The project is due by 5:00pm on the specified due date. No late project will be accepted.

Exam: Exams will be closed-book and closed-notes. No electronic device (calculator, computer, cell phone, etc.) is allowed in the exam. No make-up exams will be given unless arrangements are made with the instructor before the absence.

Academic Honesty: Students are expected to adhere to the honor code:

“An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.”

I have zero tolerance for cheating in the exam which will result in the student receiving an “F” for this course.