

COSC 366 INTRODUCTION TO CYBERSECURITY

Fall 2022

| | | | |
|--------------------|--------------------|---------------|--|
| Instructor: | Dr. Stella Sun | Email: | jysun@utk.edu |
| Time: | TR 8:10 – 9:25 | Place: | MK 404 |
| TA: | Mr. Eric Reinsmidt | Email: | eric@reinsmidt.com |

Course Website: Canvas

Office Hours:

Instructor: TR 9:30-10:30 or by appointment

TA: TR 3:00-5:00 or by appointment, online only <https://tennessee.zoom.us/j/93836957138>

Course Description: This course is to provide students with basic understanding of computer security - security threats and solutions when computers are standalone or connected to the network. Students will also learn to think like an adversary, i.e., the security mindset, by learning how to break existing systems and how to avoid security flaws in their design. In addition, students will be exposed to state-of-the-art security research. Topics to be covered include:

- Basic concepts
- Software security
- Malware
- Operating system security
- Web security
- Cryptography
- Authentication
- Network security
- Anonymity and privacy
- Cryptocurrency and Blockchain

Prerequisite: CS 230 or ECE 256 and CS 302/307

Textbook: No required textbook

Reading Materials:

- Paul C. van Oorschot, *Computer Security and the Internet: Tools and Jewels*, Second Edition, Free online <https://people.scs.carleton.ca/~paulv/toolsjewels.html>
- Ross Anderson, *Security Engineering: A Guide to Building Dependable Distributed Systems*, Second Edition, Free online <https://www.cl.cam.ac.uk/~rja14/book.html>

Expectations: Students are expected to attend lectures, review lecture slides, and complete all coursework. All homework assignments, projects, and exams should be worked on independently.

Grading:

| | |
|----------------------|-----|
| Homework | 50% |
| Course Project | 25% |
| Final Exam | 25% |

Homework: There are 4 written homework assignments and 2 programming/lab assignments which will be posted on Canvas and announced in class.

Course Project: Project description that includes detailed instructions will be posted on Canvas and announced in class. Projects are due after the classes end.

Final Exam: Online (Canvas). It is scheduled on Thursday December 15. I will give you 24 hours to start the exam. Once start, you will have 3 hours to complete and submit it. No make-up exams will be given unless arrangements are made with the instructor before the absence.

Late Policy: 10% of the grade will be deducted for each late day. This applies to homework and projects.

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 which will result in the student receiving a zero for that piece of work.