Computer System B – Spring 2024



About This Course

The course covers introductory topics in the security and privacy of networks and operating systems. The goal is to expose students to fundamental security primitives specific to computer systems and networks and to apply them to a broad range of current and future cybersecurity challenges.

Students will work with various hands-on tools and fundamental techniques used by hackers to compromise networks and systems or otherwise interfere with normal operations. The purpose of the class is NOT to teach you how to be a hacker, but rather to teach you the approaches used by hackers so you can better defend against them. Students will be graded based on exam at the end of the semester.

Class Session Organization

The sessions will include lectures on the fundamental concepts, followed by handson lab sessions. **In-person class participation is highly recommended**.

Exams

There will be one final exam in the semester. **This exam will include all materials and topics covered in the lectures and labs.** Exam is 100% of the final grade.

Textbooks

[Cybersecurity part] W. Stallings, **Cryptography and Network Security: Principles and Practice** (Published by Pearson, 2020)

Michael Goodrich and Roberto Tamassia, Brown University, "Introduction to Computer Security, Pearson New International Edition, 2014.

[OS part] Doeppner, Thomas W., **Operating Systems in Depth** (Wiley, 2010) ISBN 978-0-471-68723-8

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