CLEMSON CPSC 4240
System Administration and Security Course Syllabus

CATALOG DESCRIPTION
Covers topics related to the administration and security of computer systems. Primary emphasis is on the administration and security of contemporary operating systems.

PRE-REQUISITES
- Clemson Students: Special Summer 2022 Requirements: Pre- or concurrent enrollment: CPSC 3220 with a C or better or ECE 3220 with a C or better; and CPSC 3600 with a C or better or ECE 4380 with a C or better.
- Transient/Visiting Students: C/C++ language exposure and pre- or concurrent enrollment in a networking and operating systems class.

COURSE LEARNING OUTCOMES
1. Articulate the foundations of a system; operating systems, networking systems, and cybersecurity.
2. Apply the foundations of a system in the context of administering a modern UNIX-based system.
3. Conduct a basic system performance analysis, including the measurement and modeling of a live system.
4. Describe basic concepts of applied computer and network security, including cryptography, data integrity, user and data authentication as applied to Linux systems.
5. Install and administer a Linux system.
6. Explain concepts involved in a forensic investigation of a system.

BRIEF LIST OF TOPICS
Introduction to computer security, security building blocks, UNIX system internals, UNIX system administration, network and internet security, security operations.

TEXTBOOK
Textbooks are under review/consideration.

Please note that this syllabus is a general plan for the course; a finalized syllabus will be distributed on the first day of classes with additional information.