Introduction to Cybersecurity

School of Electrical Engineering and Computer Science course SEC 1034
School of Emerging Communication Technologies course ITS 1034

Course Information

Instructor: Gregory Ardrey: https://www.ohio.edu/engineering/about/people/gardrey
Credits: 3
Days: M/W/F
Time: 3:05 – 4:00
Location: TBD

Textbook

(Required) Security in Computing, 6th Edition, Charles P. Pfleeger, Shari Lawrence Pfleeger, and Lizzie Coles-Kemp. Pearson Education

Available through the publisher in eBook or Print: https://www.pearson.com/en-us/subject-catalog/p/security-in-computing/P200000009559/9780137891214

Available through the university library: https://alice.library.ohio.edu/record=b6428091~S7

This course is a shared course between the School of Electrical Engineering & Computer Science and the McClure School of Emerging Communications Technologies and is listed in the course catalog under two course numbers. Students should select the course number that corresponds to the college they are attending. Both courses will cover the same materials and assignments.

The course covers basic concepts in computer security at an introductory level, there are no prerequisites. Students are given a high-level overview of various concepts in computer security.

There will be weekly reading assignments from the book along with class discussions and videos on topics from the book to provide real world examples and to clarify the information provided.

*Lectures***:** This course has 3 major units that we will cover:

1. Threats, vulnerabilities and control; confidentiality, integrity and availability; authentication and access control; buffer overflow and malicious computer programs.
2. Internet security including browser attacks, email attacks and phishing; rootkits and operating system security; denial of service, network security and intrusion detection; database and cloud computing security; privacy and data mining.
3. Security management including risk analysis and business continuity planning; legal and ethical issues; cryptography including encryption, message digests and signatures; emerging topics in computer security.