Secure Computing Notes - Fall 2025

Day One:

Introduction to Secure Computing Part One

        XAMPP - PHP

Course Objectives

Understand common threats, exploits, and develop software that is more threat-resistant.
Understanding securing information through
- Confidentiality (Encryption)
- Integrity (Digital Signatures)
- Authenticity (Digital Certificates)
- Access (passwords and permissions)
Disaster and Event recovery

Concepts:

Defense in Depth: Layers of security controls, controls can be physical, technical or administrative.

CIA: Confidentiality - How sensitive is the information and prevents it reaching the wrong people. Integrity - Assurance that data is not altered or destroyed in an unauthorized manner. Availability - Continuous operation of computing systems (Prevent denial of service attacks for example)