

CSP 544: System and Network Security

Texts

- Charlie Kaufman, Radia Perlman, Mike Speciner, *Network Security: Private Communication in a Public World*, 2nd edition, 2002, Prentice Hall.
- References
 - Simson Garfinkel, Gene Spafford, *Web Security, Privacy and Commerce*, 2002, O'Reilly
 - Ross Anderson, *Security Engineering*, John Wiley and Sons, 2001.

Objectives

- This course will present an in-depth examination of topics in data and network security such: Access control, authentication, security assessment, network and data security tools, and security policies. A significant hands-on component includes network incidents to detect and fix.

Prerequisites

- CS 430 and CS 455.

Syllabus

• Introduction	2 hours
◦ What is network security?	
◦ Security objectives and attacks	
• Network Security Architecture	3 hours
• Access Control Systems and Methodology (firewalls)	3 hours
• Authentication (Kerberos)	5 hours
• Identification	5 hours
• Digital Signatures (Basic Schemes and Practice)	7 hours
• Hacking, Vulnerabilities, and Countermeasures	6 hours
• Security Assessment and Incident Handling	6 hours
• Tools Used for Network Security and Detecting and Logging of Incidents	6 hours
• Policy, Legal issues, and Ethics	2 hours
Total	45 hours

Edited March 2006 ([html](#), [css](#) checks)