

CNT 4403 Introduction to Data and Network Security

Credits: 3

Text book, title, author, and year: E.B.Fernandez, Ehud Gudes, Martin Olivier, "The design of secure systems", to appear W. Stallings and L. Brown, Computer Security: Principles and practice (2nd Ed.), Pearson 2012.

- a. **Supplemental materials: Compliance frameworks, mandatory, discretionary models. Role Based Access Control. Patterns for models.**
- 3. Cryptography :** Symmetric ciphers, DES and AES. Public key systems, digital signatures, hashing, steganography
- 4. Security in hardware and operating systems:** Effect of hardware on security. Process and memory protection. Virtualization. Vulnerabilities. Unix, Linux, Windows. Hardened operating systems. Authentication.
- 5.

