INFO 310

Fall 2016

Week 6 – Lecture 2

HOUSEKEEPING

- Attendance
- Study Session
- Lab 3 catch-up

Midterm – Study Guide

- What is Ethernet
- Describe Network Adapters
- MAC Address characteristics
  - E.g. Bit size, number format, 1st half vs 2nd half
- IPv4 Address characteristics
  - E.g. Bit size, number format, max values
  - What is RFC1918, how is it used
- Ability to explain local host-to-host communication
- Significance of subnet mask & gateway
- TCP characteristics, 3-way handshake
- UDP characteristics

Midterm – Study Guide Cont'd

- Ability to explain what NAT is / does/ how it works
- IP ports definition and characteristics
  - Bit space, max numbers
  - Difference between source and destination ports
  - Concept of well known, official, ephemeral
- Common service ports
- Network Packet definition
- Basic components
  - E.g. contains source & dest information, payload

Midterm – Study Guide Cont'd

- MTU & Jumbo Frames definition
- LAN & WAN definition & examples
- OSI Model definition
  - Ability to recognize layers and corresponding protocols

- InfoSec Governance Definition
- InfoSec Org Structures and their differences
- InfoSec Governance Building Blocks
- Policy, Standard, Guideline: Definitions & Difference

Midterm – Study Guide Cont'd

- Define encryption
- Knowledge of basic vocabulary and definitions
- Explain difference between symmetric and asymmetric encryption, as well as advantages & disadvantages
- Knowledge of different ciphers and algorithms (high level)
- Basic knowledge of key size and why/how it matters, symmetric vs. asymmetric key size differences
- Key players of Public Key Cryptography
- Describe how OpenPGP / public key encryption works

Midterm – Study Guide Cont'd

- Knowledge of the Web of Trust
- Knowledge of the components of PKI
- Explain what hashing does, what its characteristics are
- Knowledge of Access Control Models and how they differ
- Knowledge of definitions of terms (Access Control as defined in class)
- Authentication & Authorization mechanisms
- Describe what makes a good password

Midterm – Study Guide Cont'd

- Knowledge of different types of password attacks
- Knowledge of different types of authentication (besides password)
- Describe what 2-Factor Auth is (including technical implementations), how it works (high level), what its purpose is
- Knowledge of different types of biometrics
- Pros and cons of biometrics

Midterm – Study Guide Cont'd

- Reading: Anderson, pages
  - **31-39 (2.4 - 2.4.4.2)**
  - **129-155 (5.1 - 5.4.2)**
  - **160-182 (5.5 - 5.8)**
  - **239-252 (8.1 - 8.4)**
  - **275-292 (9.1 - 9.3)**