Schedule and outline

Texts

Certified Ethical Hacker Version 9 Cert Guide - Denoted CHE for readings below

Week 1

- Topics:
  - Intro s1
  - Ethical Hacking s2
  - Information gathering s3
- Readings: CEH1-3
- Labs: p1

Week 2

- Topics:
  - Vagrant & Virtualbox
  - Authentication s4
  - MFA
  - BIOMETRICS
  - Rainbow tables
  - Passwords
  - Gaining Access
    - Local password attacks
    - Privilege escalation
  - Physical Security
  - Hacking windows or linux without knowing password.
    - Rescue cd
    - Hirens
    - Reset SAM
  - Bios security
- Readings: CEH4
- Labs:
  - p2
  - p3

Week 3

- Topics:
  - OS Security
  - Maintaining Access
    - Rootkit s5
    - Trojan and Backdoor
- Labs:
  - p4

Week 4

- Topics:
More OS Security
Armitage
zero day exploits

security updates and patches
Data Hiding: s6
Review here
Man in the middle project p5

Test 1

Presentation

Week 5 - 9

Topics:

Network Security
replay
DOS
scapy
reconnaissance techniques
  net mapping (netdisco)
  vulnerability assessment
  vulnerability scanners
  sniffing
defenses
firewalls/acls
Wireless security?

Readings:

Projects:

p6
p7

Test 2

Week 10 - 13

Topics:

Application Security
spoofing (email)?
http://code.google.com/edu/security/index.html (gruyere)
http://www.itsecgames.com/
https://sourceforge.net/projects/mutillidae/
XSS, CSRF, injection
Phishing
Software Security
  Buffer overflows
  Database injections
  Jails, Containers

Readings:

Test 3

Week 14 - 15
Topics:

- Monitoring and Intrusion Detection
- Honeynets
- snort (base, placid)
- HIDS vs NIDS
- Cloud security
- Mobile?
- Cryptography
- Policies & Access control
- Forensics
- steganography
- Fun random stuff?
  - [https://www.hackthis.co.uk/levels/main/4](https://www.hackthis.co.uk/levels/main/4)

Readings:

- Test 4