Schedule and outline

Texts

- Certified Ethical Hacker (CEH) Version 10 Cert Guide, 3rd Edition (Available at safarionline) - 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
- C&C server
- Data Hiding: g6
- Review here

- Labs:
  - p4a
- Test 1
- Presentation

---

**Week 5**

- Topics:
  - MITM
  - **Ssh downgrade example**
  - Network attacks with SCAPY
  - replay
  - DOS
- Readings:
  - Scapy slides 1
- Projects:
  - p5 (man in the middle)
  - p6
  - p7

---

**Week 6**

- Topics:
  - More scapy
  - Malware
  - Ransomware
- Readings:
  - CEH Chapter 5
  - Malware s7
  - **Ransomware**
  - Linux ransomware
- Projects:
  - p8
  - p9

---

**Week 7**

- Topics:
  - IDS
- Readings:
- Projects:
  - p10

---

**Week 8**

- Topics:
  - IDS, Firewalls, and Honeypots
- Readings:
  - CEH Chapter 9 - IDS, Firewalls, and Honeypots
  - s8
  - iptables ppt more
- Projects:
Week 9

- Test 2 (Take in testing center)
- Topics:
  - Web hacking
  - Application security
- Readings:
  - Chapter 7
  - Slides
- Projects:
  - p12
  - Presentations?

Week 10

Malware workshop (Mar 9, 7-10pm)

- Topics:
  - Application security
    - [https://sourceforge.net/projects/mutillidae/](https://sourceforge.net/projects/mutillidae/)
- Readings:
  - Slides
  - Not required but good overview of web security [here](#)
  - injection slides
- Projects:
  - p13
  - Presentations?

SPRING BREAK

Week 11 (Mar 23-27)

- Topics:
  - Application Security
  - Software Security
    - Buffer overflows
- Readings:
  - Buffer overflows
  - Overflows slides
- Video Lectures:
  - Sql Injections
  - More SQL Injections
  - Buffer overflow slides
- Presentations
  - See the presentation schedule [here](#)
- Projects:
  - p14
  - buffer overflow
Week 12 (Mar 30 - Apr 3)

- Topics:
  - wireless and mobile security
- Projects:
  - ctf
- Readings:
  - CEH Chapter 8

Week 13 (Apr 6-10)

- Topics:
  - Cryptography
  - CTF work
  - Forensics
- Readings:
  - encryption
  - CEH Chapter 12
- Projects:
  - p15

Week 14 (Apr 13-15)

- Topics:
  - Fun random stuff?
  - [https://www.hackthis.co.uk/levels/main/4](https://www.hackthis.co.uk/levels/main/4)
- Projects:
  - p16
  - Maybe one last project
- Test 3