Schedule and outline

Texts

- Certified Ethical Hacker (CEH) Version 10 Cert Guide, 3rd Edition (available online through o'reilly books thru library.dixie.edu)
- Other texts could also be used

Week 1 (week of Jan 10)

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

Week 2 (week of Jan 17)

- Topics:
  - Virtualbox review
  - 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 (Week of Jan 24)

- Topics:
  - OS Security
  - Maintaining Access
    - Rootkit **s5**
    - Trojan and Backdoor
- Readings: **Rootkits**
- **Reptile rootkit setup**
- **Reptile rootkit Demo**
- Labs:
  - **p4**

Week 4 (Week of Jan 31)
Week 5 (Week of Feb 7)

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

Week 6 (Week of Feb 14)

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

Week 7 (Week of Feb 21)

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

Week 8 (Week of Feb 28)

- Topics:
  - IDS, Firewalls, and Honeypots
- Readings:
  - CEH Chapter 9 - IDS, Firewalls, and Honeypots
Week 9 (Week of Mar 7)

- **Topics:**
  - Web hacking
  - Application security
  - Proxy servers
- **Readings:**
  - Chapter 7
  - Slides
  - Proxy Slides
- **Projects:**
  - p12
  - p13
- **Presentations?**

Spring Break (Week of Mar 14)

Week 10 (Week of Mar 21)

- **Topics:**
  - Application security
  - [https://sourceforge.net/projects/mutillidae/](https://sourceforge.net/projects/mutillidae/)
  - Burpsuite
  - Overview of burpsuite.
  - SqlInjection
- **Video Lectures:**
  - Sql Injections
  - More SQL Injections
- **Readings:**
  - Not required but good overview of web security [here](#)
  - Injection Slides
- **Projects:**
  - p14
- **Presentations?**

Week 11 (Week of Mar 28)

- **Topics:**
  - Application Security
  - Software Security
    - Buffer overflows
- **Readings:**
  - Buffer overflows
  - Overflows [slides](#)
- **Video Lectures:**
  - Buffer overflow slides
- **Presentations**
  - See the presentation schedule [here](#)
- **Projects:**
  - CTF1
  - buffer overflow
Week 12 (Week of Apr 4)

- Topics:
  - wireless and mobile security
- Projects:
  - [ctf2](https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref)
- Readings:
  - CEH Chapter 8

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Week 13 (Week of Apr 11)

*Malware workshop April?*

- Topics:
  - Cryptography
  - CTF work
  - Forensics
- Readings:
  - encryption
  - CEH Chapter 10
- Video Lectures:
  - Encryption 1
  - Encryption 2
- Projects:
  - p15

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Week 14 (Week of Apr 18)

- 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

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Week 15 (Week of Apr 25)

Final?