Schedule and outline

Texts


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Week 1 (week of Jan 11)

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

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Week 2 (week of Jan 18)

- 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

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Week 3 (Week of Jan 25)

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

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Week 4 (Week of Feb 1)

- Topics:
More OS Security
C&C server
Powershell empire
Data Hiding: s6
Review here

Labs:
- p4a
Test 1
- Presentation

Week 5 (Week of Feb 8)

- 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 (Week of Feb 15)

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

Week 7 (Week of Feb 22)

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

Week 8 (Week of Mar 1)

- Topics:
  - IDS, Firewalls, and Honeypots
- Readings:
  - CEH Chapter 9 - IDS, Firewalls, and Honeypots
  - s8
  - iptables ppt more
Projects:
  p11

Spring Break (Week of Mar 8)

Week 9 (Week of Mar 15)

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

Week 10 (Week of Mar 22)

Malware workshop (????)

- 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?

Week 11 (Week of Mar 29)

- 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 (Week of Apr 5)

- Topics:
  - wireless and mobile security

- Projects:
  - ctf

- Readings:
  - CEH Chapter 8

Week 13 (Week of Apr 12)

- Topics:
  - Cryptography
  - CTF work
  - Forensics

- Readings:
  - [encryption](https://www.gitcoin.co.uk/levels/main/4)
  - CEH Chapter 10

- Video Lectures:
  - [Encryption 1](https://www.gitcoin.co.uk/levels/main/4)
  - [Encryption 2](https://www.gitcoin.co.uk/levels/main/4)

- Projects:
  - p15

Week 14 (Week of Apr 19)

- Topics:
  - Fun random stuff?
  - [https://ibalon.github.io/over-the-wire-leviathan/](https://ibalon.github.io/over-the-wire-leviathan/)
  - [https://www.gitcoin.co.uk/levels/main/4](https://www.gitcoin.co.uk/levels/main/4)

- Projects:
  - p16
  - Maybe one last project

- Test 3

Final?