Schedule and outline

Texts

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

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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

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**Week 5 (Week of Feb 8)**

• 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

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**Week 6 (Week of Feb 15)**

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

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**Week 7 (Week of Feb 22)**

• Topics:
  • IDS
• Readings:
• Projects:
  • p10

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**Week 8 (Week of Mar 1)**

• Topics:
  • IDS, Firewalls, and Honeypots
• Readings:
  • CEH Chapter 9 - IDS, Firewalls, and Honeypots
  • s8
• Projects:
  • p11
  • Test 2 (???)

**Spring Break (Week of Mar 8)**

**Week 9 (Week of Mar 15)**

• Topics:
  • Web hacking
  • Application security
  • Proxy servers

• Readings:
  • Chapter 7
  • Slides
  • Proxy Slides

• Projects:
  • p12
  • p13

• Presentations?

**Week 10 (Week of Mar 22)**

• 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 29)**

• 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 5)**
• Topics:
  - wireless and mobile security

• Projects:
  - ctf2

• Readings:
  - CEH Chapter 8

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**Week 13 (Week of Apr 12)**

*Malware workshop April 13?*

• 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 19)**

• Topics:
  - Fun random stuff?
  - https://www.hackthis.co.uk/levels/main/4

• Projects:
  - p16
    - Maybe one last project

• Test 3

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Final?