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
- 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](http://example.com)
    - 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](http://example.com)
  - Projects:
    - CTF1
    - Buffer overflow

- Week 12 (Week of Apr 5)
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

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

Final?