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

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

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 - ID, Firewalls, and Honeypots
  * s8
• Projects:
  • p11
• Test 2 (???)

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

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

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

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**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?

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**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

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**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://jhalon.github.io/over-the-wire-leviathan/  
  https://www.hackthis.co.uk/levels/main/4

Projects:  
- p16  
  Maybe one last project

Test 3

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Final?