Schedule and outline

Texts


Week 1 (week of Jan 11)

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

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

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

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 - IDS, Firewalls, and Honeypots
  * s8
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:
  - p11
- 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](http://code.google.com/edu/security/index.html)
  - injection slides
- Projects:
  - p12
- 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](http://code.google.com/edu/security/index.html)
- Projects:
  - p14
  - buffer overflow
Week 12 (Week of Apr 5)

- Topics:
  - wireless and mobile security
- Projects:
  - ctf
- Readings:
  - CEH Chapter 8

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Week 13 (Week of Apr 12)

- 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](https://www.hackthis.co.uk/levels/main/4)
- Projects:
  - p16
  - Maybe one last project
- Test 3

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Final?