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
    - Privilge 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 (???)

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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)**
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?