**Schedule and outline**

**Texts**


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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*
  - 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*
  - iptables *ppt more*
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/
- Readings:
  - Slides
  - Not required but good overview of web security here
  - 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
- Projects:
  - p13
  - 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?