**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 downgrades 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)
• Topics:
  • wireless and mobile security
• Projects:
  • [ctf2](https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref)
• 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](https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref)
  • CEH Chapter 10
• Video Lectures:
  • [Encryption 1](https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref)
  • [Encryption 2](https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref)
• 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?