

Schedule and outline

Texts

- Certified Ethical Hacker CEH Certified Ethical Hacker All-in-One Exam Guide, Fifth Edition, 5th Edition
 - Other texts could also be used
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Week 1 (week of Jan 10)

- Topics:
 - [Syllabus](#)
 - Intro [s1](#)
 - Ethical Hacking [s2](#)
 - Information gathering [s3](#)
 - Readings: CEH1-3
 - Labs: [p1](#)
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Week 2 (week of Jan 17)

- 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
 - Hiren's
 - Reset SAM
 - Bios security
 - Readings: CEH4
 - Labs:
 - [p2](#)
 - [p3](#)
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Week 3 (Week of Jan 24)

- 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 Jan 31)

- 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 7)

- Topics:
 - MITM
 - [Ssh downgrade example](#)
 - [MITM with dns_spoof](#)
 - Network attacks with SCAPY
 - replay
 - DOS
 - Readings:
 - [Man in the middle](#)
 - [Scapy slides 1](#)
 - Projects:
 - [p5](#) (man in the middle)
 - [p6](#)
 - [p7](#)
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Week 6 (Week of Feb 14)

- Topics:
 - More scapy
 - Malware?
 - Ransomware
 - Readings:
 - CEH Chapter 5
 - [FIN vs RST packets](#)
 - [Social Engineerings7](#)
 - [Ransomware](#)
 - Projects:
 - [p8](#)
 - [p9](#)
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Week 7(Week of Feb 21)

No school Monday

- Topics:
 - [IDSIDS](#)
 - Readings:
 - Projects:
 - [p10](#)
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Week 8(Week of Feb 28)

- Topics:
 - IDS, Firewalls, and Honeypots
- Readings:
 - CEH Chapter 9 - IDS, Firewalls, and Honeypots

- [s8](#)
 - Projects:
 - [p11](#)
 - [Cloud based IDS](#)
 - Test 2 (???)
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Week 9(Week of Mar 7)

- Topics:
 - Web hacking
 - Application security
 - <http://code.google.com/edu/security/index.html> (gruyere)
 - Proxy servers
 - Readings:
 - Chapter 7
 - [Slides](#)
 - [Proxy Slides](#)
 - Projects:
 - [p12](#)
 - [p13](#)
 - Presentations?
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Spring Break (Week of Mar 14)

Week 10 (Week of Mar 21)

- Topics:
 - Application security
 - <https://owasp.org/www-project-mutillidae-ii/>
 - Burpsuite
 - SqlInjection
 - Video Lectures:
 - [Sql Injections](#)
 - [More SQL Injections](#)
 - Readings:
 - [Injection Slides](#)
 - Projects:
 - [p14](#)
 - Presentations?
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Week 11 (Week of Mar 28)

- Topics:
 - Application Security
 - Software Security
 - Buffer overflows
 - Readings:
 - [Buffer overflows](#)
 - Overflows [slides](#)
 - Video Lectures:
 - [Buffer overflow slides](#)
 - Projects:
 - [CTF1](#)
 - [buffer overflow](#)
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Week 12 (Week of Apr 4)

- Topics:

- Cryptography
 - CTF work
 - Forensics
 - Readings:
 - [encryption](#)
 - CEH Chapter 10
 - Video Lectures:
 - [Encryption 1](#)
 - [Encryption 2](#)
 - Projects:
 - [ctf2](#)
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Week 13 (Week of Apr 11)

Malware workshop April 12

- Topics:
 - wireless and mobile security
 - [bluetooth - no audio](#)
 - [wireless](#)
 - Projects:
 - [p15](#)
 - Readings:
 - CEH Chapter 8
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Week 14 (Week of Apr 18)

- 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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Week 15 (Week of Apr 25)

Final?