Schedule and outline

Texts

Certified Ethical Hacker Version 9 Cert Guide - Denoted CHE for readings below

Week 1

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

Week 2

• Topics:
  • Vagrant & Virtualbox
  • 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

• Topics:
  • OS Security
  • Maintaining Access
    ■ Rootkit s5
    ■ Trojan and Backdoor
• Labs:
  • p4

Week 4
• More OS Security
• Armitage
• zero day exploits
• security updates and patches
• Data Hiding: s6
• Review here
• Man in the middle project p5

• Test 1
• Presentation

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**Week 5**

• Topics:
  • Network attacks with SCAPY
  • replay
  • DOS
• Readings:
  • Scapy slides 1
• Projects:
  • p6
  • p7

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**Week 6**

• Topics:
  • More scapy
  • Malware
  • Ransomware
• Readings:
  • CEH Chapter 5
  • Ransomware
  • Linux ransomware
• Projects:
  • p6
  • p9

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**Week 7**

• Topics:
  • firewalls/acls
  • iptables ppt more
• Readings:
• Projects:
  • p10
  • p11

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**Week 8**

• Topics:
  • Malware conclusion
  • Social Engineering Toolkit
• Readings:
Week 9

- Review
- Test 2
- Topics:
  - Application security
- Readings:
  - Read the section “Finding and Exploiting XSS Vulnerabilities” to the “Summary” at the end of XSS.
    - [this book](http://code.google.com/edu/security/index.html)
    - Slides
- Projects:
- Presentations?

Week 10

- Topics:
  - Application security
    - [https://sourceforge.net/projects/mutillidae/](https://sourceforge.net/projects/mutillidae/)
- Readings:
  - Not required but good overview of web security [here](https://sourceforge.net/projects/mutillidae/)
  - injection slides
- Projects:
  - p12
- Presentations?

Week 11

- Topics:
- Projects:
  - p13
  - ctf
- Topics:
  - Application Security
  - Software Security
    - Buffer overflows
    - demo
  - Database injections
  - Jails, Containers
- Readings:
  - [Buffer overflows](https://sourceforge.net/projects/mutillidae/)
  - Overflows slides
- Presentations?

Week 12
- Topics:
  - honeypots
  - honeynets
  - wireless and mobile security
- Projects:
  - p14
- Readings:
  - CEH Chapter 8
  - CEH Chapter 9

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**Week 13**

- Topics:
  - Cryptography
  - CTF work
  - Forensics
- Projects:
  - p15
- Readings:
  - encryption
  - CEH Chapter 12

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**Week 14**

- Topics:
  - CTF presentations

Thanksgiving

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**Week 15**

- Topics:
  - More CTF
  - Fun random stuff?
  - https://www.hackthis.co.uk/levels/main/4
- Test 3