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

• Topics:
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

Week 5

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

Week 6

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

Week 7

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

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](#)
  - 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](#)
  - 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
  - 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](https://www.hackthis.co.uk/levels/main/4)

• Test 3