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

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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://books.google.com/books?id=12345)
  - [Slides](http://slides.google.com)
- 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](http://www.example.com)
  - injection [slides](http://slides.google.com)
- Projects:
  - [p12](http://example.com)
- Presentations?

Week 11

- Topics:
  - Application Security
  - Software Security
  - Buffer overflows
    - [demo](http://example.com)
  - Database injections
  - Jails, Containers
- Readings:
  - Buffer overflows
  - Overflows [slides](http://slides.google.com)
- Presentations?

Week 12
• Topics:
  • honeypots
  • honeynets
  • wireless and mobile security
  • https://resources.infosecinstitute.com/cracking-damn-insecure-and-vulnerable-apps-diva-part-1/#gref
• 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://jhalon.github.io/over-the-wire-leviathan/
  • https://www.hackthis.co.uk/levels/main/4
• Test 3