**Pentesting Fundamentals**

1. **What is Penetration Testing:**

* There are over 2,200 cyber-attacks every day - 1 attack every 39 seconds.

1. **Penetration Testing Ethics:**

* White VS Grey VS Black Hat Hackers
* Rules of Engagement

1. **Penetration Testing Methodologies:**

* Pentesting Stages:
  + Information Gathering
  + Enumeration/Scanning
  + Exploitation
  + Privilege Escalation
  + Post-exploitation
    - 1. What other hosts can be targeted (pivoting)
    - 2. What additional information can we gather
    - 3. Covering your tracks
    - 4. Reporting
* OSSTMM (The Open-Source Security Testing Methodology Manual)
* OWASP (Open Web Application Security Project)
* NIST Cybersecurity Framework 1.1 (National Institute of Standards & Technology)
* NCSC CAF (National Cyber Security Center Cyber Assessment Framework)

1. **Black, White & Grey box Penetration Testing**
2. **Practical: ACME Penetration Test**