Metailearn

Certified Cyber Security Professional

PENETRATION TESTING

SYLLABUS & CONTENTS

Certified and Approved by the American Board of Education

AMERICAN BOARD OF EDUCATION

This course covers the principles and techniques of penetration testing and vulnerability assessment. Students will gain practical knowledge of security testing methodologies, tools, and techniques to identify and exploit security vulnerabilities in networks, systems, and applications.

- Understand the principles of penetration testing and vulnerability assessment

- Develop skills in identifying and exploiting security vulnerabilities

- Learn how to properly conduct a security assessment and penetration testing

- Gain practical knowledge of security tools and techniques

1. Introduction to Penetration Testing and Vulnerability Assessment

- Overview of Penetration Testing and Vulnerability Assessment
- Different Types of Penetration Testing
- Legal and Ethical Considerations

2. Footprinting and Reconnaissance

- Gathering Information about the Target
- Scanning and Enumeration
- OS and Application Fingerprinting
- Social Engineering

3. Scanning and Enumeration

- Network Scanning
- Port Scanning and Service Enumeration
- Vulnerability Scanning

4. System Hacking

- Exploiting Operating System and Application Vulnerabilities
- Password Cracking Techniques
- Privilege Escalation Techniques

5. Web Application Hacking

- Web Application Architecture and Security
- OWASP Top 10 Vulnerabilities
- Web Application Scanning and Exploitation

6. Wireless Network Hacking

- Wireless Network Fundamentals
- Wireless Security
- Wireless Network Penetration Testing

7. Social Engineering

- Overview of Social Engineering
- Pretexting, Phishing, and Baiting
- Social Engineering Countermeasures

8. Cryptography

- Introduction to Cryptography
- Symmetric and Asymmetric Cryptography
- Public Key Infrastructure (PKI)
- Cryptography Attacks and Countermeasures

9. Penetration Testing Methodology

- Penetration Testing Fundamentals
- Penetration Testing Methodology
- Reporting and Documentation

10. Vulnerability Assessment and Management

- Vulnerability Assessment Fundamentals
- Vulnerability Scanning Tools
- Vulnerability Management and Patching

Cloud computing

Secure systems

Virus identification

Certified Ethical Hackers

2 Factor Authentication

System defense

Global security

Safety

Assessment and Evaluation:

- Quizzes and exams
- Class participation and discussion
- Assignments and Projects
- Final Project (Penetration Testing Report)

100% Placement Support and Interview Grooming

+91 97786 32484
+91 79073 58458

support@metailearn.com
www.metailearn.com

Metailearn,55/523, 2nd Floor, K.K. Buildings,
Thoundayil Rd, Manorama Junction,
Panampilly Nagar, Ernakulam, Kerala 682036

Metailearn