

Emerging Technologies

Certified Pentesting Professional Program

Curriculum

Program Outline :

Module 1: Fundamentals of Penetration Testing

1. Introduction to Penetration Testing

- Core principles, tools, and industry applications.

2. Network Security Basics

- Understanding network environments and vulnerabilities.

3. Vulnerability Assessment

- Identifying and assessing vulnerabilities.

4. Basic Exploits

- Using pre-built exploits effectively.

Module 2: Advanced Pentesting Techniques

5. Advanced Exploit Development

- Writing and using custom exploits.

6. Tool Building for Pentesting

- Creating your own security tools.

7. Binary Exploitation

- Conducting advanced binary exploits.

8. IoT and OT System Testing

- Testing IoT and OT systems for vulnerabilities.

Module 3: Practical Applications

9. Practical Pentesting Projects

- Developing and implementing penetration testing projects.

10. Security Operations Management

- Managing security operations.

11. Data Analysis and Visualization

- Analyzing security data and visualizing results.

12. Business Intelligence Applications

- Using data for security decision making.

Module 4: Capstone Project

13. Integration of Learned Skills

- Apply tools and techniques to real-world security problems.

14. Advanced Pentesting Systems

- Developing complex penetration testing systems.

15. Cloud Security Management

- Securing cloud-based platforms.

16. AI for Security

- Implementing AI solutions in security.

Elective Modules

17. Data Ethics and Privacy

- Ethical considerations, privacy laws, compliance strategies.

18. Predictive Analytics with Security Management

- Building and validating predictive models.

19. AI for Security Management

- Implementing AI solutions in security.

20. Advanced Data Warehousing Techniques

- Optimizing data warehousing solutions.

21. Data-Driven Security Decision Making

- Using data to inform and drive security strategies.

22. Cloud Security Solutions

- Deploying security management systems on cloud platforms.

23. Security Project Management

- Leading security projects, ensuring successful delivery.

24. Big Data Security

- Securing data in big data environments.

25. IoT Security

- Securing IoT devices and systems.

Websites:

- <https://chools.in/>
- <https://ramaqchools.com/>
- <https://www.choolsgroup.com/>