

BAKER COLLEGE STUDENT LEARNING OUTCOMES

ITS3510 Ethical Hacking I

3 Semester Hours

Student Learning Outcomes & Enabling Objectives

- 1. Explain the history and current state of hacking and penetration testing, including ethical and legal implications.
- 2. Identify fundamental TCP/IP concepts and technologies related to networking.
- 3. Identify and remove common types of malware, spyware, adware, etc.) from infected systems.
- 4. Identify common information gathering tools and techniques.
- 5. Analyze how port scanning and fingerprinting are used by hackers.
- 6. Analyze how enumeration is used in conjunction with system hacking on Windows and Linux systems
- 7. Examine computer languages and programming
- 8. Discuss vulnerabilities for windows and Linux, how to fix them and techniques to harden.
- 9. Explore the vulnerabilities of Embedded OSs
- 10. Understand web applications, their vulnerabilities and tools for attackers and security testers.
- 11. Analyze wireless network vulnerabilities exploited by hackers.
- 12. Describe cryptographic systems and methods.
- 13. Compare and contrast defensive technologies

Big Ideas and Essential Questions

Big Ideas

- Information Technology
- Information Technology Security

Essential Questions

- 1. How do we protect wired networks
- 2. How do we protect wireless networks
- 3. How do maximize the effectiveness are firewalls?
- 4. How does the threat level of an organization impact the IS department within a business?
- 5. What role does network protection strategy play in information systems?

Effective: Fall 2020

These SLOs are not approved for experiential credit.