Alexandria Technical and Community College

CVNP 2645: Offensive Security

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course combines an ethical hacking methodology with the hands-on application of security tools to better help students secure their systems. Students are introduced to common countermeasures that can reduce and/or mitigate attacks.

B. COURSE EFFECTIVE DATES: 10/21/2020 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Understand hacker mindsets and methods.
2. Develop a plan for physical security.
3. Configure footprinting tools and develop techniques for footprinting.
4. Use port scanning to determine vulnerabilities.
5. Use enumeration and computer system hacking to determine computer security.
6. Create a plan to determine wireless vulnerabilities.
7. Secure web sites and database from attacks.
8. Understand malware and develop a plan to defend against it.
9. Configure sniffers and create a plan to thwart denial of services attacks.
10. Create a plan to mitigate social engineering attacks.
11. Develop an incident response plan.
12. Use defensive technologies to help prevent hacker attacks.
13. Understand exploitation methods and aftermath.

D. LEARNING OUTCOMES (General)

1. Utilize various information security tools given various target systems in different environments.
2. Understand the diverse approaches used by attackers.
3. Determine how the tools interrelate with each other in an overall penetration testing process.
4. Apply a common ethical hacking methodology to carry out a penetration test
5. Analyze how penetration testing and ethical hacking fit into a comprehensive enterprise information security program.
6. Implement countermeasures for various types of attacks.
7. Demonstrate ethical behavior appropriate to security-related technologies.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted