

Syllabus for CMIT398E (Ethical Practice of Intrusion Prevention and Detection)

Course Description

Prerequisite: CMIT 265. Development of a structured knowledge base that enables network security professionals to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. Focus is on penetration-testing tools and techniques that security testers and ethical hackers use to protect computer networks. Course material should prove useful in preparing for the certified ethical hacker examination.

Course Goals/Objectives

After completing this course, you should be able to:

- demonstrate how to stop network and computer attacks
- demonstrate how footprinting and social engineering attacks are launched
- examine port scanning
- learn enumeration (reword this – use a more-measurable verb)
- write programs for security professionals
- assess strengths and weaknesses of major operating systems and methods to better assure system integrity
- develop strategies to prevent web servers from being attacked
- reduce probabilities of hacking into wireless networks and detect intrusions
- evaluate the strengths and weaknesses of cryptography
- protect networks with security devices
- assess current security issues

Course Materials

Simpson, Michael. Hands-On Ethical Hacking and Network Defense with CD. Thomson Learning. ISBN: 0619217081.

Grading Criteria

Section removed.

Academic Policies and Procedures

Section removed.

Course Schedule

Week	Module	Readings/Assignments	Due Date
1	9/4/2007 Introduction to course Complete Biography with picture on WebTycho Ethical Hacking Security Term Paper Discussion Chapter 1 Ethical Hacking Overview Lab 1	Review assignments for Chapter 1/Lab 1 Assign Quiz #1 due next class	9/11/07
2	9/11/2007 Chapter 2 TCP/IP Concepts Review Lab 2	Review assignments for Chapter 2/Lab 2 Assign Quiz #2 due next class	9/18/07
3	9/18/07 Chapter 3 Network and Computer Attacks Lab 3	Review assignments for Chapter 3/Lab 3 Assign Quiz #3 due next class	9/25/07
4	9/25/07 Chapter 4 Footprinting and Social Engineering Lab 4	Review assignments for Chapter 4/Lab 4 Assign Quiz #4 due next class	10/2/07
5	10/2/07 Chapter 5 Port Scanning Lab 5	Review assignments for Chapter 5/Lab 5 Assign Quiz #5 due next class	10/9/07
6	10/9/07 Chapter 6 Enumeration Lab 6	Review assignments for Chapter 6/Lab 6 Assign Quiz #6 due next class	10/16/07
7	10/16/2007 Midterm exam		
8	10/23/2007 Chapter 7 Programming for Security Professionals Lab 7	Review assignments for Chapter 7/Lab 7 Assign Quiz #7 due next class	10/30/07
9	10/30/07	Review assignments for Chapter	11/6/07

	Chapter 8 Microsoft Operating System Vulnerabilities Lab 8	8/Lab 8 Assign Quiz #8 due next class	
10	11/6/2007 Chapter 9 Linux Operating System Vulnerabilities Lab 9	Review assignments for Chapter 9/Lab 9 Assign Quiz #9 due next class Ethical Hacking Security Term Paper	11/13/07
11	11/13/2007 Chapter 10 Hacking Web Servers Lab 10	Review assignments for Chapter 10/Lab 10 Assign Quiz #10 due next class	11/20/07
12	11/20/2007 Chapter 11 Hacking Wireless Networks Lab 11	Review assignments for Chapter 11/Lab 11 Assign Quiz #11 due next class	11/27/07
13	11/27/2007 Chapter 12 Cryptography Lab 12	Review assignments for Chapter 12/Lab 12 Assign Quiz #12 due next class	12/4/07
14	12/4/2007 Chapter 13 Protecting Networks with Security Devices Lab 13	Review for the Final Exam	12/11/07
15	12/11/2007 Final Exam		