

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number:	CSET-384	Department:	Computer Systems Eng. Tech.		
Course Title:	Computer and Network Security	Semester:	Fall	Year:	2008

Objectives/Competencies

Course Objective	Competencies
1.) Students will have an overview of local and wide area tcp/ip networks	1.) Ability to understand and enumerate network assets. 2.) Ability to determine what ports are open and closed. 3.) Understand common network attack methods and defenses. 4.) Understand the use and testing of a firewall.
2.) Cryptography	1.) Understand secret key cryptography (symmetric cryptography) concepts. 2.) Understand public key cryptography (asymmetric cryptography) concepts. 3.) Evaluate the strength and weakness of cryptographic systems. 4.) Perform the encryption of files and disks. 5.) Understand SSH and SSL concepts.

Course Objective	Competencies
3.) Students will understand access policies.	<ol style="list-style-type: none"> 1.) Understand the principles of user and groups for security. 2.) Understand the use of access control lists (ACL's) to secure a system.
4.) Understand the C.I.A. principle.	<ol style="list-style-type: none"> 1.) Understand the requirements for the CIA triad; Confidentiality, Integrity, and availability. 2.) Understand the controls and protections to enforce CIA. 3.) Enumerate threats and vulnerabilities that could compromise CIA.
5.) Understand vulnerabilities in software.	<ol style="list-style-type: none"> 1.) Have an overview of the software design process. 2.) Understand a systems engineering overview. 3.) Understand the software lifecycle. 4.) Understand the software capability maturity model (CMM). 5.) Understand the special problems with database applications.
6.) Law and ethics.	<ol style="list-style-type: none"> 1.) Understand the law regarding common computer crime. 2.) Understand the ethical responsibilities of the technician. 3.) Understand the chain of evidence requirements to secure a potential security breach.