

Blackhawk School District

CURRICULUM

Course Title: Information Technology 3
Course Number: 1062
Grade Level(s): 11 – 12
Length of Period: 45 minutes
Length of Course: 1 semester
Faculty Author(s): Cox
Credits: .5
Date: 1/19/09; Revised May '09

COURSE DESCRIPTION: The Information Technology III class is structured around the Security+ certification exam which focuses on network security. Students will explore enterprise hardware and software packages that are common in a networked environment along with the security issues surrounding them. Topics include security basics, attacks, securing network infrastructure, security policies, web security, and disaster recovery.

PA Standard	Description
3.7.10.C	Apply basic computer operations and concepts.
3.7.10.D	Utilize computer software to solve specific problems.
3.7.10.E	Apply basic computer communications systems.
3.7.12.C	Evaluate computer operations and concepts as to their effectiveness to solve specific problems.
3.7.12.D	Evaluate the effectiveness of computer software to solve specific problems.
3.7.12.E	Assess the effectiveness of computer communications systems.

Class Resources
Security+ Guide to Network Security Fundamentals, 3rd Ed., by Mark Ciampa
Sun xVM VirtualBox
Various Versions of Windows/Linux

Course Topic	Proposed Time	Topic Reflection
System Security	10 Days	
<ul style="list-style-type: none"> * Security+ Certification Overview * Information Security Terminology * Systems Threats and Risks * Protecting Systems 		

Course Topic	Proposed Time	Topic Reflection
Network Infrastructure	15 Days	
<ul style="list-style-type: none"> * Network Vulnerabilities and Attacks * Network Defenses * Wireless Network Security * Designing Network Topologies Securely 		

Course Topic	Proposed Time	Topic Reflection
Access Control	15 Days	
<ul style="list-style-type: none"> * Introduction to Group Policy * Securing Operating Systems * Authentication * Introduction to IIS * Securing Web Servers * Introduction to SQL Server * Securing Databases * Introduction to Mail Servers * Securing Mail Servers * Securing Instant Messaging * Securing Applications 		

Course Topic	Proposed Time	Topic Reflection
Assessments and Audits	15	
<ul style="list-style-type: none"> * Performing Vulnerability Assessments * Conducting Security Audits 		

Course Topic	Proposed Time	Topic Reflection
Cryptography	10	
<ul style="list-style-type: none"> * Basic Cryptography * Applying Cryptography 		

Course Topic	Proposed Time	Topic Reflection
Organizational Security	15	
<ul style="list-style-type: none"> * Business Continuity * Designing a Security Policy * Licensing * Compliance Monitoring and Evaluation * Security Training 		