

## CUMBERLAND COUNTY COLLEGE

Course: CS 240 Security+

Credits: 3

Prerequisites: CS 217

### Description:

Provides students with a comprehensive overview of network security. The course covers the general security concepts; communication security, information security, cryptography basics, and operational/organizational security are explored in how it relates to further avenues of specialization for the security student.

### Learning Outcomes

At the completion of this course, students will be able to:

- Explain network security goals, threats, and factors involved in a secure network strategy;
- Learn to identify and deal with various security attacks and malicious codes;
- Explain and deal with the different vulnerabilities associated with telecommuting and VPN technology;
- Explain e-mail vulnerabilities and how to safeguard against them;
- Explain the vulnerabilities of JavaScript, buffer overflow, ActiveX, cookies, CGI, applets, SMTP relay, and how they are commonly exploited;
- Cite security issues related to wireless media and how to do a wireless site survey;
- Explain network security topologies & devices and learn to apply the security features of VPNs;
- Explain and apply intrusion detection systems;
- Have a basic understanding of the concepts of cryptography and how they relate to network security;
- Explain and be able to design the disaster recovery planning process.
- Explain and be able to apply the basic computer forensics methods

### Topical Outline

- Introduction to Security
- Malware and Social Engineering Attacks
- Application and Network Attacks
- Vulnerability Assessment and Mitigating Attacks
- Host, Application, and Data Security
- Network Security

- Administering a Secure Network
- Wireless Network Security
- Access Control Fundamentals
- Authentication and Account Management
- Basic Cryptography
- Advanced Cryptography
- Business Continuity
- Risk Mitigation

### Text:

Mark Ciampa, Security+ Guide to Network Security Fundamentals, Fifth Edition. Course Technology, Cengage Learning, 2014, ISBN 13: 9781305093911

### Student Assessment

(Assessment may be accomplished through projects, portfolios, exams, presentations and/or papers)

### Academic Integrity

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation.

Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense.

As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

### Tutoring & Project Assist

If you are having difficulty with work in this class tutoring is available through the Center for Academic & Student Success. If you think that you might have a learning disability, contact Project Assist at 856.691.8600 x 1282 for information on assistance that can be provided to eligible students.

### **Before Withdrawing From This Course**

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) BEFORE withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA which can limit or eliminate future financial aid in addition to causing academic suspension.