DELAWARE TECHNICAL & COMMUNITY COLLEGE

COLLEGEWIDE COURSE SYLLABUS

CAMPUS:	Terry
DEPARTMENT:	Computer Information Systems
COURSE NUMBER AND TITLE:	CIS 243 – Information & Network Security
INSTRUCTOR NAME:	**TELEPHONE:** **E-MAIL:**
PREREQUISITES:	CIS 190 or CIS195
COREQUISITES:	None
COURSE HOURS AND CREDITS:	4 Credits –3 Hours Lecture/Week 2 Hours Lab/Week
COURSE DESCRIPTION:	This course introduces the student to beginning computer information and networking security principles and how the field relates to other areas of Information Technology. It covers topics on how to harden a network, protect communications and use cryptography and Public Key Infrastructure (PKI) to thwart attackers. This course also provides the board-based knowledge necessary to take an optional network security certification examination.
TEXT:	Ciampa M. (2004). Security+ Guide to Network Security Fundamentals and Lab Manual. Boston, MA: Course Technology.
MATERIALS:	
METHOD OF INSTRUCTION:	Lecture, demonstration, laboratory assignments and evaluations.
MANUAL(S):	None
DISCLAIMER:	None

Collegewide Core Course Performance Objectives

The student will be able to:

1. Define information security and its components. (CCC 5, 6; PGC 2)
2. Define network security basics, baseline and network infrastructure. (CCC 5, 6; PGC 2)
3. Assess attackers and their attacks over the Internet. (CCC 5, 6; PGC 2)
4. Protect wired and wireless communications. (CCC 5, 6; PGC 2)
5. Secure with cryptography and digital certificates. (CCC 5, 6; PGC 2)
6. Manage operational security with policies and procedures. (CCC 5, 6; PGC 2)

Measurable Performance Objectives

1. Define information security and its components.
   - 1.1 Identify the principles for information security.
   - 1.2 Define the terms in information security.
   - 1.3 List the components in information security.
2. Define network security basics, baseline and network infrastructure.
   - 2.1 Control access to computer systems.
   - 2.2 Harden operating systems, applications and network.
   - 2.3 Design network topologies.
   - 2.4 Secure removable media and network devices
3. Assess attackers and their attacks over the Internet.
   - 3.1 Develop attacker profiles.
   - 3.2 Identify different types of attacks.
   - 3.3 Examine identity attacks.
   - 3.4 Identify denial of service attacks.
   - 3.5 Distinguish different types of malicious code.
4. Protect wired and wireless communications.
   - 4.1 Harden File Transfer Protocol (FTP).
   - 4.2 Secure remote access.
   - 4.3 Protect directory services.
   - 4.4 Protect E-mail systems.

4.5 Secure Web communications and instant messaging.
4.6 Harden wireless networks.

5. Secure with cryptography and digital certificates

   5.1 Define cryptography.
   5.2 Use of cryptography in secured communications.
   5.3 Develop Public Key Infrastructure (PKI).
   5.4 Manage Key and digital certificates.

6. Manage operational security with policies and procedures.

   6.1 Harden physical security with access controls.
   6.2 Minimize social engineering.
   6.3 Plan for disaster recovery.
   6.4 Design, monitor and review security policies.

Evaluation Criteria/Policies

1. Students will demonstrate proficiency on all measurable performance objectives at least to the 75% level to successfully complete the course.

2. The letter grade will be determined using the College Grading System:

Grade	Point Value		Explanation
A	92	100	Student meets the measurable objectives in an outstanding manner.
B	83	91	Student meets the measurable objectives in an above average manner.
C	75	82	Students meets the measurable objectives.
R	0	74	Student does not meet the measurable objectives.

3. In order to achieve the maximum benefit from this course of instruction, the student is responsible for attending scheduled classes, frequently accessing Blackboard, completing all readings and instructor handouts, and completing all computer assignments.

4. Each student is required to complete all assignments and examinations. Students who miss classes are expected to get missed assignments from the instructor and missed lecture

notes from another student. Any student having difficulty will be expected to seek individual instructional aid from the instructor by appointment.

5. The instructor will announce the schedule for two written tests: midterm and final. Each test may also include a hands-on computer problem. Your final grade in this course will be based on the following:

Two tests (midterm and final)	50%
Laboratory exercises/assignments/projects	50%

Students should refer to the Student Handbook for information on Academic Standing Policy, Academic Honesty Policy, Student Rights and Responsibilities and other policies relevant to their academic progress.