WILMINGTON UNIVERSITY
COLLEGE OF TECHNOLOGY
BASIC COURSE INFORMATION

COURSE TITLE: Windows Operating Systems and Systems Administration

COURSE NUMBER: SEC 340

Minimum Grade Policy
The Computer & Network Security program has set a minimum passing grade of "C-" for program core courses. Students receiving a grade lower than "C-" in any required core course must retake that course.

I. MAJOR INSTRUCTIONAL GOALS:

OBJECTIVE #1: Demonstrate comprehension of Windows concepts and administration

Learning Outcomes: The student will be able to define terms, concepts, and processes associated with the Windows Operating System, and the major differences between Windows and other operating systems. Identify the major elements of a computer operating system and explain their functions. Compare and contrast operating system and application system software. Recognize and apply principles of memory management, system configuration, and the boot process. Analyze disk management and create simple-to-complex batch files to solve a variety of problems. Diagnose problems connected with the Registry and determine procedures for backing up the system. Understand how to configure and maintain the operating system environment and server hardware. Gain a basic understanding of Active Directory and its key features and benefits.

Learning Activities: Assigned readings, discussion, lab exercises, external assignments

Learning Assessment: Written exams, assignments

OBJECTIVE #2: Demonstrate ability to effectively utilize MSDOS commands

Learning Outcomes: The student will be able to install Windows; navigate the directory structure; create, manipulate and delete data, files and directories; determine and modify permission settings; manage processes; write simple shell scripts; and perform system administration functions. Analyze a DOS situation to determine the problem and find a solution. Select and apply the commands of MSDOS to manage the hardware and software.

Learning Activities: Assigned readings, discussion, lab exercises, external assignments

Learning Assessment: Written exams, assignments

OBJECTIVE #3: Demonstrate understanding of system administration tasks
**Learning Outcomes**: The student will be able to add and delete users, monitor system usage, mount file systems, and back up files. Understand the importance and implementation of good backups and sound disaster recovery strategy. Understand how to maintain a secure Windows Operating System through diligent patching and solid security policies.

**Learning Activities**: Assigned readings, discussion, lab exercises, external assignments

**Learning Assessment**: Written exams, assignments

**OBJECTIVE #4: Demonstrate understanding Network Systems Administration**

**Learning Outcomes**: The student will be able to explain how network hardware and software are applied within local area network environments. Learn how to setup and manage effective permissions to ensure secure access to network resources (files and printers). Propose and evaluate alternative local area networking solutions from both business and technical perspectives. Implement local area networking solutions, including various network operating systems, database servers, and web servers. Troubleshoot and solve local area network installation and operational problems in a multi-vendor, heterogeneous networking environment.

**Learning Activities**: Assigned readings, discussion, lab exercises, external assignments

**Learning Assessment**: Written exams, assignments

The main goal of this course is to provide you with a comprehensive understanding of Windows operating systems commonly found in the Information Technology field today. You will learn the theory behind operating systems and some basic to advanced components of each operating system. This course walks you through current hardware and how it interacts with operating systems. You will learn basic functions and design of file systems found in Windows, UNIX, and Macintosh operating systems. This course discusses how operating systems interface with input, output, and storage devices. You will learn basic network theory and how to setup network resources through the multiple versions of software. There are many hands-on projects and case projects that provide you with real experience in supporting multiple operating systems.

**II. CLASS PARTICIPATION:**

Students are expected to attend class and participate actively and in a positive way. Questions and relevant observations are encouraged and enrich the experience of the entire class.

Computers in the classrooms are intended to be used as tools to enhance the students' learning experience. Instant messaging, gaming, emailing, and surfing the web are distractions to the student, the surrounding students, and the instructor and constitute inappropriate behavior. Students are ethically obliged to avoid these and similar practices.