

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
ITE 126 - OPERATING SYSTEM FUNDAMENTALS (1 CR.)**

Course Description

Includes instruction in commonly used internal and external commands including the use of subdirectories and creating basic batch files. Lecture 1 hour per week.

General Course Purpose

Course is geared toward all IT majors/minors, especially networking and security specialists who need to know how use the operating command line interface for immediate access to operating systems internals. Also assists specialists in use of network commands not efficiently used with the graphical user (windowing) interface.

Course Prerequisites/Corequisites

Students must be able to read and write at the college level.

Course Objectives

By the end of the course students will be able to:

- a) Understand the concept of an operating system.
- b) Implement an operating system's command line interface to manage a file system.
- c) Implement operating system commands to create a useful bootable removable media.

Major Topics to be Included

- a) Operating system components and function
- b) Use of a command line interface
- c) Command output redirection
- d) File management commands
- e) Formatting disks and making boot disks
- f) Batch files
- g) Extra Topics (optional)
 - I. Microcomputer Basic Architecture: Hardware, BIOS, Device Drivers, Operating System, Operating Environment, Applications
 - II. Operating Systems Evolution

Student Learning Outcomes

Upon completion of this course, the student will be able to:

- a) Describe the components of an operating system.
- b) Use a command line interface of an operating system to perform common tasks related to file management, for example, rename and copy make directory, list files etc.
- c) Use common utility files/commands of an operating system to perform common tasks related to disk management, for example, disk format and creation of bootable disks.
- d) Use command line input and output redirection operators such as >, < and |.
- e) Create a batch file.
- f) Extra Topics (optional)
 - i. Describe the basic architecture of a microcomputer, especially the purpose and functions of a microcomputer operating system (kernel and operating environment).
 - ii. Describe the evolution of the microcomputer operating system.