



**CISM 130  
Using PC Operating System**

Atlantic Cape Community College  
341 Court House – South Dennis Road  
Cape May Court House, NJ 08210 - 1972  
Voice: 609-463-3525 Fax: 463-3645  
Office: CMCC-326  
CM Office Hours: M 4:45 – 6:45

Instructor: Richard Kalman  
5100 Black Horse Pike  
Mays Landing, NJ 08330  
Voice: 609 343-5020 Fax: 609 343-5122  
Office:  
ML Office Hours: W 5:30 – 6  
R 6 – 6:30  
E-mail: [Kalman@atlantic.edu](mailto:Kalman@atlantic.edu)

**Course Description:**

This course is designed to give students a chance to obtain fundamental practical knowledge about personal computer operating systems. It will introduce students to an assortment of the most popular operating systems available today. Experience using DOS, Windows, MAC and UNIX will be the focus of the course.

**Prerequisite:**

CISM125 Introduction to Computers (may be taken concurrently)

**Credits:** 4

**Materials:**

**Text:** Jean Andrews, A+ Guide To Software Managing, Maintaining and Troubleshooting, 6<sup>th</sup> Edition  
ISBN-13: 978-1-133-13513-5

**LABSIM:** [www.testout.com](http://www.testout.com) site is used and the access code can be purchased at the college bookstore or at the site directly.  
The TestOut PC Pro covers A+ 220-801/802 exams ISBN: 978-1-935080-42-8

**Additional Materials:** Flash Drive > 1 GB to save your work for submission as a backup.

**Access to a computer with Internet access and a word processor capable of saving files in the M. S. Word format.**

**Note:** Within the course you will be downloading specific data files and/or programs that will be used in class and homework assignments. Free versions of the programs will be used, but you can choose to purchase full versions of the programs, but this is NOT required. Further information will be provided in class as we get to each specific area of the course.

## Student Learning Outcomes

Upon successful completion of this course students will be able to:

- Perform basic Windows, Apple, and Linux operations using the Desktop, Menu system, and Command Line Interface
- Work with files and folders
- Use basic operating system application tools to maintain and optimize the computer performance
- Make changes to the desktop and the taskbar
- Work with advanced searching techniques
- Work with home network, wireless security
- Perform system backup/restore, system/disk cleanup, and disk defragmenter
- Use the Internet as a research tool
- Understand the fundamentals of proper UNIX command syntax and issue properly formed UNIX commands
- Identify a course of action to prepare to take and pass the CompTIA A+ 220-802 exam of the A+ certification testing.

## Learning Goals and Objectives

- I. Introduce students to a wide range of Operating Systems.
  - a. Define System Software
  - b. Define the three different style of user interfaces
  - c. Discuss what an Operating System does
- II. Students will learn about the different procedures and features for the installation and use of an Operating System.
  - a. Explain DOS (Disk Operating System) basics
  - b. Differentiate and use Internal and External commands
  - c. Define DOS disk and file structure
  - d. Describe a file
  - e. Define directories
  - f. Diagram a directory tree
  - g. Display a directory listing
- III. Students will learn various tools used in maintaining the Windows Operating System.
  - a. Format a disk in DOS
  - b. Copy files in DOS
  - c. Delete files in DOS
  - d. Create and use a batch file
  - e. Copy files in DOS
  - f. Delete files in DOS
  - g. Check a disk
- IV. Students will utilize various tools to optimize the Windows Operating System.
  - a. Explain DOS system configuration and optimization
  - b. Explain Windows basics
  - c. Explain Windows devices
  - d. Define application software
  - e. Define Windows disk and file structure
  - f. Format a disk in Windows
  - g. Apply file-naming rules

- h. Manipulate the Windows look
  - i. Organize (using Windows Explorer) files
- V. Students will explore proper procedures for troubleshooting Windows and Applications.
  - a. Change directories in Windows
  - b. Create directories in Windows
  - c. Remove directories in Windows
  - d. Define the Windows command prompt
  - e. Copy files in Windows
  - f. Display the contents of a file in Windows
  - g. Erase files in Windows
  - h. Explain file attributes in Windows
- VI. Students will explore proper procedures for troubleshooting Windows startup.
  - a. Explain Windows start-up sequence
  - b. Explain Windows registry
  - c. Explain and use the Windows control panels
  - d. Manipulate folders in Windows
  - e. Explain and classify icons
  - f. Define and perform a Warm Boot two ways
- VII. Students will learn a variety of different software issues that students may encounter when working on a computer.
  - a. Use menus
  - b. Define Windows NT disk and file structure
  - c. Examine Windows file-naming conventions
  - d. Use various accessory applications in Windows
  - e. Define multitasking
- VIII. Students will learn how Windows supports connecting to and setting up a network.
  - a. Explain networking basics
  - b. Explain network Operating System basics
  - c. Explain file server
- IX. Students will explore Windows resources on a Network.
  - a. Explain file sharing
  - b. Explain drive mapping
  - c. Explain a print queue
- X. Students will learn a variety of security strategies for networks.
  - a. Define various security techniques
- XI. Students will learn different types of network topologies that are commonly used for networks as well as addressing strategies used on various types of networks.
  - a. Explain UNIX operating system
  - b. Define and use the UNIX logging in process
  - c. Explain UNIX directory structure
  - d. Create a file in UNIX
  - e. Rename a file in UNIX
  - f. Move a file to a new directory in UNIX
  - g. Delete a file in UNIX
- XII. Students will learn mobile devices and client-side virtualization techniques
  - a. Explain file linking
  - b. Categorize storage devices

- c. Explain the various mobile operating systems (Apple's iOS, Microsoft's Windows Mobile, and Android)
- d. Comparing open-source and closed-source operating systems
- e. Securing mobile operating systems

### Assessment Strategies

Student Learning Outcomes	Assessment
Sit for the COMP TIA A+ 220-802 certification examination.	Examinations, Quizzes, Homework, Classwork, Presentations
Install various operating systems using various techniques.	Homework, Classwork, Simulations, Presentations
Develop various maintenance routines to keep the system running efficiently	Homework, Classwork, Simulations, Presentations
Develop various troubleshooting techniques for personal computer operating system faults	Examinations, Quizzes, Homework, Classwork, Simulations, Presentations
Utilize various operating system tools in connecting various peripheral devices to a personal computer	Examinations, Quizzes, Homework, Classwork, Simulations, Presentations
Utilize various operating systems and network operating systems in connecting a variety of peripheral devices on a network	Simulations, Classwork, Presentations
Interact with individuals, both remotely and in person, in a help desk situation to diagnose problems that may occur with the system.	Examinations, Quizzes, Simulations, Homework, Classwork, Presentations
Use various techniques of interaction in remotely assisting users with computer issues.	Examinations, Quizzes, Homework, Classwork, Simulations
Explain the pros and cons of various types of network topologies.	Homework, Classwork, Presentations
Establish various types of network topologies	Examinations, Quizzes, Homework, Classwork, Simulations, Presentations
Create an ad-hoc Wireless topology	Simulations, Homework, Classwork, Presentations

## STUDENT CONTRIBUTIONS

1. **Allow for at least 8 hours per week for assignments, lab simulations and class preparation.**
2. **Attendance Policy** - You are expected to log on to the class session at least once a week.  
**If for any reason you are unable to log into Blackboard and Labsim it is your responsibility to communicate this with me.**
3. **Class Participation** – In accordance with the Attendance Policy you are expected to have read the required material and completed the obligatory assignments and lab simulations in preparation for the class session as stated in the syllabus and schedule. These classes are highly interactive and active participation is expected. As you complete your reading assignments it is suggested that you write down any questions relevant to the assigned reading material and the out-of-class assignments.
4. **ADA accommodations** for disabilities can be provided to students who provide documentation to Atlantic Cape's Disability Support Services (DSS) office. A licensed healthcare professional must provide this documentation and it must be current within the last five years. No accommodations can be provided for a course unless a student is first registered with the DSS office. For more information, please contact Lucy McGlynn (email: [lmcglynn@atlantic.edu](mailto:lmcglynn@atlantic.edu) and/or phone: [609-343-5090](tel:609-343-5090)).
5. Do your own work. Plagiarism in any form will result in a failing grade for all involved.

### **CIS Departmental Academic Honesty Policy**

Academic honesty is essential to the trust that is fundamental to an educational experience, academically dishonest behaviors will not be tolerated. Examples include, but are not limited to, software piracy, computer vandalism, cheating, and fabrication, plagiarism, copying, and facilitating academic dishonesty. Any academic dishonesty will be reported to the chairperson of the CISM department, Dean of Instruction, and Dean of Students. Penalties may result in "F" or "0" for the assignment or "F" for the course. Two such offenses will be grounds for academic dismissal. See Student Handbook for more information.

6. **Assigned readings** from the “A+ Guide to Software” and “Outside Sources” are to be completed before you post to a discussion, complete a homework assignment, or take a quiz/exam. As you complete your reading assignments it is suggested that you write down any questions relevant to the assigned reading material(s) and/or TestOut site and post these questions to the discussion board. The discussion board is an open forum for all and I will be checking in periodically checking that questions are answered. For specific issues you should e-mail in the BlackBoard e-mail system so I can directly address the issue.
7. **Submission of Assignments and Projects** – Assigned work is to be submitted **on or before** their respective due dates. Homework and Lab assignments will be penalized two points for each day late, this is in addition to any grading deduction that you may incur.
8. **Examination and Quiz Policy** – There are **NO makeup quizzes** for any reason and an exam makeup will only be given with a **valid** and **documented** reason for missing it. To prepare for exams and/or quizzes review your notes and readings for the respective test or quiz. All material that is presented in all quizzes and exams are from the readings and expansion on ideas and concepts from the readings.

Many of these expansions are touched upon in the discussions portion of the class and that is why it is extremely important to participate in the discussions and complete homeworks.

9. It is expected that all students will show courtesy and respect for each other and for administrative officers, faculty, and employees. See Student Handbook for more information.
10. **Student Conduct in Class Policy** – Any acts of classroom disruption (this includes the virtual classroom) that go beyond the normal rights of students to question and discuss with instructors the educational process relative to subject content will not be tolerated, in accordance with the Academic Code of Conduct described in the Student Handbook.
11. **Incomplete Policy** – Students will not be given an incomplete grade in the course without valid and documented evidence as described in the Student Handbook. In any case, for a student to receive an incomplete, he or she must be passing and must have completed a significant portion (>85%) of the course.
12. **Withdrawal** – Withdrawal from class must be done on or before the designated deadline for the semester as scheduled for withdrawal (see the college Tabloid or calendar). Not attending the class is not considered a withdrawal; you must complete the appropriate paper work as designated in the Student Handbook.

## COURSE EVALUATION

Homework Assignments	200 points
Labs	200 points
Quizzes	300 points
Examinations	<u>300 points</u>
Total points	1000 points

## ADA ACCOMMODATIONS

ADA accommodations for disabilities can be provided to students who provide documentation to Atlantic Cape's Disability Support Services (DSS) office. A licensed healthcare professional must provide this documentation and it must be current within the last five years. No accommodations can be provided for a course unless a student is first registered with the DSS office. For more information, please contact Lucy McGlynn (email: [lmcglynn@atlantic.edu](mailto:lmcglynn@atlantic.edu) and/or phone: 609-343-5090).

**COLLEGE GRADING SCALE**  
**(Except for Paralegal, Nursing, and Culinary Programs)**

Grade	Percentage Range	Grade Point Value
A	93-100%	4.0
A-	90-92%	3.7
B+	87-89%	3.3
B	83-86%	3.0
B-	80-82%	2.7
C+	77-79%	2.3
C	70-76%	2.0
D	60-69%	1.0
F	0-59%	0.0