

Common Course Outline
CINS 142
Introduction to the Linux/UNIX
3 Semester Hours

The Community College of Baltimore County

Description

CINS 142 – 3 Credits – Introduction to Linux/UNIX provides students with the fundamental concepts of Linux and other UNIX and UNIX-like operating systems. Students will use command line utilities, learn basics of shell scripting, pipes, redirection, filename generation and programming fundamentals.

This course may be part of a three-course sequence preparing students for the highly valued RedHat Certified Technician (RHCT) performance exams.

3 credits: 3 lecture hours (this course is delivered in a combination lecture and hands-on format).

Prerequisite: DCOM 101 or consent of the Program Director or Academic Dean

Overall Course Objectives

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

1. identify the key components of the UNIX Operating System;
2. explain the UNIX design philosophy;
3. use UNIX file management commands;
4. organize directories and files;
5. explain the purpose of the UNIX shells;
6. use filename generation;
7. use UNIX pipes and redirection;
8. combine basic commands to accomplish unique tasks;
9. design, code, test, and debug shell scripts; and
10. identify strengths and weaknesses of various UNIX shells.

Major Topics

1. Introduction
2. History and Overview of UNIX
3. File Structure
4. Introduction Commands and Utilities
5. UNIX design philosophy
6. The Bourne shell

7. Redirection
8. Pipes
9. File access permissions
10. Filename generation
11. Text editors
12. Shell programming
13. The Korn shell
14. Functions
15. Aliases
16. UNIX job control
17. Introduction to Awk and text processing utilities
18. UNIX networking concepts
19. Introduction to system administration
20. The UNIX job market

Course Requirements

Grading: Grading procedures will be determined by the faculty member, will be provided the first week of class, and will include:

1. Minimum of four lab projects
2. Minimum of three tests
3. Comprehensive final

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.