Common Course Outline

CMSC 142

Introduction to UNIX Operating System

3 Semester Hours

The Community College of Baltimore County

Description

Introduction to UNIX Operating System
Includes elementary UNIX commands, directory and file creation and usage, electronic mail techniques, and text file formatting; introduces UNIX shell and utility programs and requires additional lab time for programming assignments.
Prerequisites: CINS 101 or CINS 155 or CMSC 155 or consent of instructor.

Overall Course Objectives

Upon successfully completing the course, students will be able to:

1. analyze problems to determine appropriate operating system solutions.
2. use the UNIX system hierarchy to create, secure, and access directories and files.
3. communicate electronically with other UNIX users.
4. use shell commands to implement solutions.
5. use a variety of system editors.
6. debug logic-based programming errors.
7. convert input from the user or files.
8. write simple shell programs.
9. work in teams to develop an operating system solution.
10. continue the study of computer science and operating systems

Major Topics

I. Introduction to the UNIX Operating System
   - A. History of UNIX Operating System
   - B. UNIX Applications and Features
   - C. UNIX Limitations

II. UNIX environment
   - A. Directory Terminology and Pathnames
   - B. File Structures and Permissions
   - C. On-line Reference Manual
   - D. Metacharacters

III. UNIX utilities
   - A. Electronic Mail
   - B. UNIX Environment Conditions
   - C. Copying, Moving, Deleting Files and Directories

IV. Editors
   - A. Screen Editor vi
   - B. Line Editor ed
   - C. Stream Editor sed

V. Text Manipulation
   A. nroff
   B. awk
   C. grep
   D. cut
VI. The Bourne Shell
   A. Command Files
   B. Environment Variables
   C. User-Defined Variables
   D. Introduction to Programming

Course Requirements

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

1. Computer Projects: Students will develop at least five computer projects. Programming time outside of class is required to complete projects.
2. At least two tests, exams, and/or quizzes: Individual faculty will notify students of the testing procedures to be used.
3. Comprehensive Final Exam: The course will include a comprehensive final exam, which may include a final project.
4. Final Grades: Grades will be determined by individual faculty members.

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

The Community College of Baltimore County is committed to providing a high-quality learning experience that results in growth in knowledge, attitudes, and skills necessary to function successfully as a transfer student, in a career and as a citizen. To accomplish this goal, we maintain high academic standards and expect students to accept responsibility for their individual growth by attending classes, completing all homework and other assignments, participating in class activities and preparing for tests.

We take seriously our responsibility to maintain high-quality programs and will periodically ask you to participate in assessment activities to determine whether our students are attaining the knowledge, attitudes and skills appropriate to various courses and programs. The assessment activities may take many different forms such as surveys, standardized or faculty-developed tests, discussion groups or portfolio evaluations. We ask that you take these activities seriously so that we can obtain valid data to use for the continuous improvements of CCBC's course and programs.