Fall 9-2004

CRT 112T.01: Operating System Fundamentals

Kent Nelson
University of Montana - Missoula

THE UNIVERSITY OF MONTANA-MISSOULA
COLLEGE OF TECHNOLOGY
BUSINESS TECHNOLOGY DEPARTMENT

COURSE SYLLABUS

CRT 112T Operating System Fundamentals
Fall 2004
Credits 3
Prerequisites None

FACULTY: Kent Nelson
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Office: Adjunct Office
Office Hours: By appointment

COURSE DESCRIPTION:

Introduction to common operating systems used in modern computing. Emphasis on thorough understanding and use of command line and graphical user interfaces. Hands-on experience with single-user and multi-user/multi-access software. Focus on using, comparing, and analyzing the capabilities of existing and emerging operating systems.

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

1. Identify the function, purpose, and structure of different operating systems.
2. Complete operating system tasks from both command line and graphical user interfaces.
3. Demonstrate proficiency in file management techniques for different operating systems.
4. Describe memory organization in operating systems.
5. Prepare hard disks and install operating systems.
6. Administer maintenance and system tools provided with operating systems.
7. Identify and implement troubleshooting techniques.
8. Describe multi-user computing environments and multiprocessing computing environments.

REQUIRED TEXT:
Windows XP Command Line, Gillay & Peat, Franklin, Beedle & associates, 2003
Understanding Practical UNIX, Raymond Greenlaw, Franklin, Beedle & Associates, 2001

SUPPLIES: Three 3.5" diskettes HD (high density) are required for saving student data.

CLASSROOM EXPECTATIONS:

1. Class structure will include lectures, hands on exercises, homework assignments, lab assignments, scheduled tests, and pop quizzes.

2. Class time is given for some projects; others will be outside of class. Students should plan on spending two hours of preparation for each hour in class.

3. Assignments must be submitted by the announced due dates. Late assignments will not be accepted.

4. In-class exercises cannot be made up.

5. Makeup tests are offered when faculty is notified prior to test.

STUDENT EVALUATION:

A final grade will be determined by total points received on assignments and tests divided by total points possible. The percentage conversion is as follows:

GRADING SCALE:

93-100	A
87-92	B
79-86	C
74-78	D

STUDENT CONDUCT CODE:

Students are expected to follow the University of Montana Student Code. The code includes the following:

Academic Misconduct:

… Academic misconduct is defined as all forms of academic dishonesty, including but not limited to:

Plagiarism: Representing another person's words, ideas, data or material as one's own.

Substituting or arranging substitution, for another student during an examination or other academic exercise: Knowingly allowing others to offer one's work as their own.

Copies of the Student Code are available in Student Services and at www.umt.edu/studentaffairs/

DISABILITY ACCOMMODATIONS:

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely manner. Eligible students need to visit with their Instructor after class and be prepared to provide a letter from their DSS coordinator.

FINAL SCHEDULE

Friday, December 17, 8:00 – 10:00

COURSE OUTLINE

I. Operating Systems
   - A. Description
   - B. Functions

II. Windows Command line
   - A. Description
   - B. Command line syntax
   - C. Directories
   - D. Files/File management
   - E. Batch Files
   - F. Memory management
   - G. Formatting
   - H. Boot disk
   - I. Hard Disk Prep
   - J. OS installation

III. Unix
   - A. Description
   - B. Command line syntax
   - C. Editors, vi
   - D. File system
   - E. File management
   - F. Communications
   - G. Shells
   - H. Shell commands
   - I. Shell scripts
   - J. Disk structure
   - K. Customizing environment

IV. Linux
   - A. Description
   - B. File system
   - C. Graphical User Interface
   - D. Graphical User Interface file management
   - E. Mounting file system
   - F. Preparing disks