

Las Positas College
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Course Outline for CNT 50

INTRODUCTION TO DESKTOP OPERATING SYSTEMS

Effective: Fall

I. CATALOG DESCRIPTION:

CNT 50 — INTRODUCTION TO DESKTOP OPERATING SYSTEMS — 2.00 units

By performing numerous hands-on labs, students in this class will gain an understanding of desktop operating systems using command line and GUI interfaces, such as Windows XP, 2003, 2008, Win7, UNIX/Linux, Apple, and other emerging operating systems. including online web-based desktops and cloud computing. Students will use virtualization software VMware, MS VirtualPC, or Sun VirtualBox to install and configure operating systems and user applications on a microcomputer system. Students will also experiment with online desktops-like AjaxWindows, Schmedley, Glide, Google Docs, eyeOS. Operating systems for cell phones (Google Android Chrome O?S, Iphone) will be demonstrated. The role of hardware, application software and the operating system and how they interact with each other will be explored. Students who have completed or are enrolled in Computer Information Systems 65 may not receive credit.

2.00 Units Lecture

Strongly Recommended

CIS 50 - Intro to Computing Info Tech

Grading Methods:

Letter or P/NP

Discipline:

	<u>MIN</u>
Lecture Hours:	36.00
No Unit Value Lab	18.00
Total Hours:	54.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

Before entering this course, it is strongly recommended that the student should be able to:

A. CIS50

IV. MEASURABLE OBJECTIVES:

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

- identify the operating system's functions, structures, and major system files and to explain the function of each;
- compare the features of various operating system;
- identify basic concepts and procedures for creating, viewing, and managing files, and folders for different operating systems;
- use and explain command prompt functions on different operating systems;
- perform disk maintenance operations such as backup, restore, defragment, scan disk;
- install/upgrade Windows and Linux operating systems;
- explore Apple operating system and online desktops;
- create boot disks;
- recognize and interpret the meaning of common error messages/codes;
- describe and troubleshoot the boot up and start sequence;
- recognize common problems and determine how to resolve them;
- identify concepts and capabilities relating to the Internet and basic procedures for setting up a system for Internet access;
- identify networking capabilities of an operating system and the procedures for connecting a workstation to a network.

V. CONTENT:

- Operating system theory
- Introduction to various operating systems including:
 - Command Line Interfaces
 - Windows Clients (2003, 2008, Windows 7)
 - Unix/Linux
 - Macintosh
 - Virtual Machines
- Installation an operating system

- D. Configuring an operating system
 - 1. Configuring system settings
 - 2. Configuring hardware settings
 - 3. Configuring software setting
- E. Upgrading operating system software
- F. Managing storage space
 - 1. Partitioning disk
 - 2. Choosing a file system
 - 3. Disk compression
 - 4. Managing files and folders/directories
- G. Using and installing peripheral devices such as mice, scanners, printers, monitors, etc
- H. Troubleshooting system errors
 - 1. Resolving hardware conflicts
 - 2. Controlling and troubleshooting the boot process
 - 3. Examining system files
- I. Networking and Internet connectivity
 - 1. Logging on to a network
 - 2. Workgroup/domain network environments
 - 3. Sharing resources
 - 4. Overview of Internet/Intranetworking

VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. Videos; reading assignments; tutorials
- D. **Lab** - Hands-on labs with step-by-step exercises
- E. **Demonstration** -

VII. TYPICAL ASSIGNMENTS:

A. Using the MS VirtualPC or VMware on your host machine, install the following Operating System. 1. Download an iso file of the Debian 5 Linux OS. 2. Use your computer CD writing application, either Roxio or one you download from the Internet and create a bootable CD. 3. Create a new virtual machine as per the instructions on the handout. 4. Start Linux on your Windows computer and configure the network, user groups and user accounts. Show the instructor for credit. B. On one page, compare and contrast current desktop operating systems, web-based desktops and virtual machines.

VIII. EVALUATION:

- A. **Methods**
- B. **Frequency**
 - 1. Frequency
 - a. Chapter practice quizzes, one mid-term and one final examination
 - b. Weekly hands-on computer projects covering common operating system functions from the text book and from instructor handouts.

IX. TYPICAL TEXTS:

- 1. Holcombe *Survey of Operating Systems*. 2nd ed., McGraw-Hill, 2009.
- 2. Garrido, Jose M *Principles of Modern Operating Systems*., -, 2008.
- 3. USB flash drive, Optical drive, or other storage device.

X. OTHER MATERIALS REQUIRED OF STUDENTS: