COURSE DESCRIPTION

Prerequisites: Basic understanding of personal computers and operating systems as obtained in ITSC 1401 or BCIS 1405 or COSC 1401 or equivalent experience approved by instructor.

Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

The goal of this course is to provide a thorough, step-by-step process for learning the fundamentals of supporting and troubleshooting computer operating systems so that students will be prepared to pass a portion of CompTIA’s broad-based, vendor independent A+ certification exam. This course covers a wide range of material about operating systems, from using the different Windows operating systems to demonstrating how the boot process works, as well as installing, supporting, and troubleshooting the different Windows operating systems. The course begins with a general overview of how software and hardware actually relate to each other on a computer. Other topics include supporting hard drives from a software point of view, supporting and troubleshooting Windows on networks and the Internet, and an introduction to the Linux and Mac OS operating systems. The final topic addresses issues related to notebook computers. The course takes a hands-on approach to learning the steps to installing, troubleshooting and supporting the most common operating systems in use on the personal computer. In addition to explaining concepts, the course uses a multitude of real world examples of problems and issues related to operating systems, making it a practical preparation for the real world.

This is a 4 credit hour course. (3 lec., 3 lab.)

WECM END-OF-COURSE OUTCOMES: Install, configure, and maintain the operating system; perform basic file management operations; organize and allocate primary and secondary storage; access and control peripheral devices; and run utilities.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITSC 1405, students will be able to:

- Identify major components of an Operating System.
- Install an Operating System.
- Utilize tools and troubleshooting methods for Operating Systems.
- Describe methods of protecting computers from malicious software and other means of intrusion.
- Manage and maintain data using an Operating System.
COURSE MATERIALS

REQUIRED


Ten (10) 3 ½" High Density Disks with labels, CD’s or USB Flash Drive

A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Major Course Requirements
Students will participate in Discussion Board addressing topics in each chapter.
Students will complete the review questions in each chapter.
Students will complete LabSIM Assignments for each chapter.
Students will complete hands-on projects for each chapter.
Students will produce a Case Study Project paper.

- Hard drive installation methods.
- Format a hard drive.
- Prepare a hard drive for Operating system installation
- Use Windows tools and utilities for solving problems with Windows.
- Use startup tools for Vista, XP and Windows 2000.
- Examine common Windows Errors
- Implement strategies for dealing with boot errors and other startup issues.
- Use tools to diagnose client side connectivity issues
- Install AV & Other Internet Protection Software
- Install Vista, XP & Windows 2000
- Use Virtual PC

Subject Matter
Topics covered in the lecture portion of the course include:

- Explore Current & Past Operating Systems
- OS Tools
- Roles and responsibilities of those who sell fix or support personal computers.
- What customers want and expect beyond your technical abilities
- Customer interaction when supporting or selling personal computers
- Windows Installation
- Schedule preventative maintenance tasks for Windows
- Methods for system backup
- Optimize Windows performance.
- Utilities and tools for troubleshooting problems with Windows
TCP/IP
Examine Internet Configurations For Dialup, DSL, & Firewalls
Support Techniques For Internet Clients
Learn troubleshooting methods for network connectivity
Network Security
The Enemy, Computer Viruses & Other Malware
Best security practices
Implement security practices in Windows
Use BIOS security features

Disclaimer
The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.

The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

Policies
Students should click on the links below and read all of these policies.

General institutional policies
Course-related institutional policies