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.

Current personal computer hardware including assembly, upgrading, setup, configuration and troubleshooting.

In this course, we will take an in depth look at some advanced computer maintenance concepts and techniques. We will examine theoretical concepts that make the world of technology unique. Also, this course will adopt a practical hands-on approach when examining PC development techniques. Along with examining different troubleshooting strategies, this course will explore the advancement of technological development, as well as, timeless problem solving strategies.

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

WECM END-OF-COURSE OUTCOMES: Assemble/setup and upgrade personal computer systems; diagnose and isolate faulty components; optimize system performance; and install/connect peripherals.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITSC 1425, students will be able to:

- Identify all hardware components of a PC.
- Install all hardware components of a PC.
- Troubleshooting methods for computer hardware.
- Perform maintenance fundamentals for the PC.
- Describe hardware functions with Operating systems.

COURSE MATERIALS

REQUIRED


Toolkit
USB Flash Drive
Email Address

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 hands-on projects in each chapter.

Students will complete three major exams to evaluate the students' understanding of the fundamentals of PC Computer Hardware Concepts.

A mid-term and final exam will evaluate the student's understanding of the fundamentals of PC Computer Hardware concepts.

Students will complete LabSim exercises on the following topics:

- **Hardware**
- **Troubleshooting Repair and Maintenance**
- **Operating Systems and Software**
- **Networking**
- **Security**
- **Operational Procedure**

**Subject Matter**

Topics covered in the lecture portion of the course include:

- Introducing Operating Systems
- Working with People in a Technical World
- Installing Windows
- Maintaining Windows
- Optimizing Windows
- Tools for Solving Windows Problems
- Fixing Windows Problems
- Networking Essentials
- Networking Practices
- Security Essentials
- Security Practices
- CompTia A+ Acronyms
- Keystroke shortcuts in Windows

**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