

EASTERN ARIZONA COLLEGE

Intermediate PC Troubleshooting and Repair

Course Design
2011-2012

Course Information

Division Business
Course Number CMP 110AN
Title Intermediate PC Troubleshooting and Repair
Credits 1
Developed by Scott Russell/Revised by Pat Burke
Lecture/Lab Ratio 0 Lecture/2 Lab

Transfer Status

ASU	NAU	UA
Elective Credit	Elective Credit	Non Transferable

Activity Course No
CIP Code 11.0100
Assessment Mode Pre/Post Test (10 Questions, 10 Points)
Semester Taught Upon Request
GE Category None
Separate Lab No
Awareness Course No
Intensive Writing Course No

Prerequisites

None

Educational Value

This class is designed for the intermediate to advanced computer user who desires to learn more advanced troubleshooting and repair methods and techniques.

Description

This course is a follow-up to CMP 110AM, providing intermediate PC troubleshooting and repair. Includes diagnosing common Windows system failures, changing system configurations, BIOS, and registry; downloading peripheral device drivers, and removal of CPU and motherboard. Recommendation: Completion of CMP 110AM or equivalent.

Supplies

None

Competencies and Performance Standards

1. Describe hardware, diagnostic tools, ESD precautions, component configuration, and device drivers.

Learning objectives

What you will learn as you master the competency:

- a. Review hardware including motherboard, memory, drives, peripheral cards and devices, BIOS and Windows Operating System.
- b. Utilize diagnostic tools including DVM and Scandisk.
- c. Identify ESD precautions such as using wrist strap and antistatic bags.
- d. Describe the various component configurations in peripheral cards and devices, new hard drives, and in partitioning and reformatting hard drives.
- e. Identify device drivers.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe hardware including motherboard, memory, drives, peripheral cards and devices, BIOS and Windows Operating System.
- learner can utilize diagnostic tools including DVM and Scandisk.
- learner can identify ESD precautions such as using wrist strap and antistatic bags.
- learner can describe the various component configurations in peripheral cards and devices, new hard drives, and in partitioning and reformatting hard drives.
- learner can Identify device drivers.

2. Identify BIOS settings.

Learning objectives

What you will learn as you master the competency:

- a. Define BIOS.
- b. Demonstrate starting BIOS.
- c. Identify how to disable unused devices to decrease security risks.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can define BIOS.
- learner can demonstrate starting BIOS.
- learner can identify how to disable unused devices to decrease security risks.

3. Log boot ups and events.

Learning objectives

What you will learn as you master the competency:

- a. Describe the purpose of logging system events.
- b. Correlate an event with a job and session.

- c. Describe how the SLOG command enables and disables the selected system logging events.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe the purpose of logging system events.
- learner can correlate an event with a job and session.
- learner can describe how the SLOG command enables and disables the selected system logging events.

4. Install and utilize TweekUI.

Learning objectives

What you will learn as you master the competency:

- a. Demonstrate how to install TweekUI.
- b. Identify how to utilize TweekUI to access functions, settings and information.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can demonstrate how to install TweekUI.
- learner can identify how to utilize TweekUI to access functions, settings and information.

5. Utilize Extract for file recovery.

Learning objectives

What you will learn as you master the competency:

- a. Describe how to extract a file into the directory.
- b. State the advantages of having a special directory for each file.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe how to extract a file into the directory.
- learner can state the advantages of having a special directory for each file.

6. Diagnose with 3rd party software.

Learning objectives

What you will learn as you master the competency:

- a. Define 3rd-party software.
- b. Download and install software that will enable you to extract 3rd-party software from the Internet.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can define 3rd-party software.
- learner can download and install software that will enable you to extract 3rd-party software from the Internet.

7. Utilize Internet to download device drivers.

Learning objectives

What you will learn as you master the competency:

- a. Describe how to locate device drivers on the Internet.
- b. Demonstrate how to download device drivers from the Internet.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe how to locate device drivers on the Internet.
- learner can demonstrate how to download device drivers from the Internet.

8. Remove and reinstall CPU, fans, power supply and motherboard.

Learning objectives

What you will learn as you master the competency:

- a. Describe how to remove the CPU, fans, power supply, and motherboard.
- b. Demonstrate how to reinstall the CPU, fans, power supply, and motherboard.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe how to remove the CPU, fans, power supply, and motherboard.
- learner can demonstrate how to reinstall the CPU, fans, power supply, and motherboard.

9. Define registry file operation and maintenance.

Learning objectives

What you will learn as you master the competency:

- a. Describe registry file operations.
- b. Demonstrate proper registry file maintenance practices.

Performance Standards

Competence will be demonstrated:

- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can describe registry file operations.
- learner can demonstrate proper registry file maintenance practices.

10. Remove software applications.

Learning objectives

What you will learn as you master the competency:

- a. Demonstrate how to remove unwanted software applications.

Performance Standards

Competence will be demonstrated:

- by written test.
- by performing skills with 100% accuracy.

Criteria - Performance will be satisfactory when:

- learner can demonstrate how to remove unwanted software applications.

Types of Instruction

Classroom Presentation

On Campus Laboratory and Clinicals

Grading Information

Grading Rationale

Pre-Post test 10%

Quizzes/Labs 90%

Grading Scale

A 90-100%

B 80-89%

C 70-79%

D 60-69%

F 59% or below