

# Computers for Teachers

## Course Design

2007-2008

### **Course Information**

<b>Organization</b>	Eastern Arizona College
<b>Division</b>	Business
<b>Course Number</b>	CMP 106
<b>Title</b>	Computers for Teachers
<b>Credits</b>	3
<b>Developed by</b>	Mike Moore
<b>Lecture/Lab Ratio</b>	Lecture/Demonstration 3
<b>Transfer Status</b>	Non-transferable
<b>Activity Course</b>	No
<b>CIP Code</b>	11.0100
<b>Assessment Mode</b>	Pre/Post Test (50 Questions/50 Points)
<b>Semester Taught</b>	Upon Request
<b>GE Category</b>	None
<b>Separate Lab</b>	No
<b>Awareness Course</b>	No
<b>Intensive Writing Course</b>	No

### **Prerequisites**

None

### **Description**

Introduction to the use of computers in the classroom. Using current varieties of software for assignment presentation including desktop publishing, grading, student information, presentation software from the computer to the screen, using the internet to teach through websites and other varieties of multimedia.

### **Supplies**

USB Drive for file storage

## **Competencies and Performance Standards**

### **1. Identify and when resources allow, use current and future applications of computers in education.**

#### **Learning objectives**

*What you will learn as you master the competency:*

- a. Receive list of software available in educational lab for building educational applications.
- b. Discuss list of educational software available in educational lab.
- c. Select specific educational software projects using educational lab software.

#### **Performance Standards**

*Competence will be demonstrated:*

- o when learner selects specific software projects requiring educational software and turns in list.
- o when learner completes projects at end of semester.
- o by successful completion of final exam.

*Criteria-Performance will be satisfactory when:*

- o learner receives list of software available in educational lab for building educational applications.
- o learner discusses list of educational software available in educational lab.
- o learner selects specific educational software projects using educational lab software.

### **2. Operate computer hardware systems.**

#### **Learning objectives**

*What you will learn as you master the competency:*

- a. Turn-on computer following recommended procedures.
- b. Turn-off computer following recommended procedures.
- c. Connect computer to network using appropriate connectors and cables.

#### **Performance Standards**

*Competence will be demonstrated:*

- o by demonstrating appropriate on/off operation.
- o by selecting appropriate connectors and cables while connecting computer to network.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner turns-on computer following recommended procedures.
- o learner turns-off computer following recommended procedures.
- o learner connects computer to network using appropriate connectors and cables.

**3. Use computer software operating systems at introductory levels.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Use Windows for executing software.
- b. Make folders.
- c. Run Explorer.
- d. View menus in multiple ways.
- e. Copy files.
- f. Use network neighborhood.
- g. Find desired files and folders.
- h. Organize disks.
- i. Design windows/screens according to learner's choices.

***Performance Standards***

*Competence will be demonstrated:*

- o by operating Windows during the semester.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner uses Windows for executing software.
- o learner makes folders.
- o learner runs Explorer.
- o learner views menus in multiple ways.
- o learner copies files.
- o learner uses network neighborhood.
- o learner finds desired files and folders.
- o learner organizes disks.
- o learner designs windows/screens according to learner's choices.

**4. Evaluate leading software and hardware for use in education.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Run educational packages in the computer lab.
- b. Create mini-projects with demonstration software.
- c. Read library resources about educational software/hardware.
- d. Read trade periodicals about educational software/hardware.
- e. Read sales catalogs about educational software/hardware.

***Performance Standards***

*Competence will be demonstrated:*

- o by turning in evaluation report.

- o by successful completion of final exam.

*Criteria-Performance will be satisfactory when:*

- o learner runs educational packages in the computer lab.
- o learner creates mini-projects with demonstration software.
- o learner reads library resources about educational software/hardware.
- o learner reads trade periodicals about educational software/hardware.
- o learner reads sales catalogs about educational software/hardware.
- o learner evaluates resources based upon classroom usage.
- o learner prepares software/hardware purchase recommendation report.

**5. Use software to develop text handouts for hardcopy student information using word processors and desktop publishers.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Enter data of varying fonts, type, and graphic characteristics using a word processor.
- b. Enter data of varying fonts, type, and graphic characteristics using a desktop publishing page.
- c. Develop varying column sizes and placements using desktop publishing software.
- d. Create copy with varying graphic placements, sizes, etc.
- e. Create multiple page layouts for developing handout booklets, books.
- f. Create brochure materials and other layouts.
- g. Use all tools (illustrated in tool bars) available in word processors and desktop publishers.

***Performance Standards***

*Competence will be demonstrated:*

- o by projects student completes using word processing and desktop publishing software.
- o by successful completion of final exam.

*Criteria-Performance will be satisfactory when:*

- o learner enters data of varying fonts, types, and graphic characteristics using a word processor.
- o learner enters data of varying fonts, type, and graphic characteristics using a desktop publishing page.
- o learner develops varying column sizes and placements using desktop publishing software.
- o learner creates copy with varying graphic placements, sizes, etc.
- o learner creates multiple page layouts for developing handout booklets, books.
- o learner creates brochure materials and other layouts.
- o learner uses all tools (illustrated in tool bars) available in word processors and desktop publishers.

**6. Use spreadsheet software and others for grading in the classroom.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Define a spreadsheet.
- b. Create a spreadsheet.
- c. Save a spreadsheet.
- d. Print a spreadsheet.
- e. Use formulas and functions to perform calculations.
- f. Use cell names in formulas.
- g. Use the SUM, AVG, ROUND, MIN, MAX, VLOOKUP, CHOOSE, and IF functions.
- h. Format a spreadsheet.
- i. Select cell ranges by highlighting blocks of cells.
- j. Fill down labels, values, and formulas using relative and absolute fills.
- k. Create charts.
- l. Answer what if questions.
- m. Sort data in a spreadsheet.
- n. Learner creates grading spreadsheet, without weighting.
- o. Learner creates grading spreadsheet with weighting.

***Performance Standards***

*Competence will be demonstrated:*

- o by completion of grade book assignments being turned in.
- o by successful completion of unit quiz.
- o by successful completion of final exam.

*Criteria-Performance will be satisfactory when:*

- o learner defines a spreadsheet.
- o learner creates a spreadsheet.
- o learner saves a spreadsheet.
- o learner prints a spreadsheet.
- o learner uses formulas and functions to perform calculations.
- o learner uses cell names in formulas.
- o learner uses the SUM, AVG, ROUND, MIN, MAX, CHOOSE, VLOOKUP, and IF functions.
- o learner formats a spreadsheet.
- o learner selects cell ranges by highlighting blocks of cells.
- o learner fills down labels, values, and formulas using relative and absolute fills.
- o learner creates charts.
- o learner answers what if questions.
- o learner sorts data in a spreadsheet.
- o learner creates grading spreadsheet, without weighting.

- o learner creates grading spreadsheet, with weighting.

**7. Use database software for developing student information files.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Describe a database.
- b. Define records, fields, and entries.
- c. Plan/design a database.
- d. Create a database and modify its form design.
- e. Display a database in different views.
- f. Use labels on a form.
- g. Enter records into a new database.
- h. Create a student information database.
- i. Merge word processing and database data to produce letter to parents.

***Performance Standards***

*Competence will be demonstrated:*

- o by completed student information assignment being turned in.
- o by successful completion of unit quiz.
- o by successful completion of final exam.

*Criteria-Performance will be satisfactory when:*

- o learner describes a database.
- o learner defines records, fields, and entries.
- o learner plan/designs a database.
- o learner creates a database and modifies its form design.
- o learner displays a database in different views.
- o learner uses labels on a form.
- o learner enters records into a new database.
- o learner creates a student information database.
- o learner merges word processing and database data to produce letter to parents.

**8. Use presentation software for developing classroom screen presentations.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Execute PowerPoint software.
- b. Select templates.
- c. Create self designed template.
- d. Select buttons for use.
- e. Use all features available in all tool bars.

- f. Use the help menu as text.
- g. Create 10 screen lessons for showing to class.
- h. Create webpages for teaching purposes.

**Performance Standards**

*Competence will be demonstrated:*

- o by completing, demonstrating, and turning in 10 screen lesson.
- o by completing, demonstrating, and turning in webpages.
- o by successfully completing unit quiz.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner executes PowerPoint software.
- o learner selects templates.
- o learner creates self designed template.
- o learner selects buttons for use.
- o learner uses all features available in all tool bars.
- o learner uses the help menu as text.
- o learner creates 10 screen lesson for showing to class.
- o learner creates webpages for teaching purposes.

**9. Use classroom multimedia software for developing computerized, non-internet presentations.**

**Learning objectives**

*What you will learn as you master the competency:*

- a. Read manuals accompanying multimedia software such as Macromedia.
- b. Download multimedia software available free on the net.
- c. Read text manuals from downloaded multimedia software.
- d. Choose project to use with multimedia software.
- e. Complete multimedia project of student design.
- f. Demonstrate multimedia project to other students and instructor.

**Performance Standards**

*Competence will be demonstrated:*

- o by completing, demonstrating, and turning in multimedia project.
- o by successfully completing unit quiz.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner reads manuals accompanying multimedia software such as Macromedia.
- o learner downloads multimedia software available free on the net.
- o learner reads text manuals from downloaded multimedia software.
- o learner chooses project to use with multimedia software.

- o learner demonstrates multimedia project to other students and instructor.

**10. Use internet tools for developing website multimedia teaching pages.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Use website editors.
- b. Apply website editors.
- c. Design websites for teaching purposes.
- d. Make websites available to students.
- e. Recognize network features as used in the internet.
- f. Develop plans for online course proposal.

***Performance Standards***

*Competence will be demonstrated:*

- o by completing, demonstrating, and turning in website project.
- o by successfully completing unit quiz.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner reviews several website editors.
- o learner selects website editor of choice.
- o learner reads instructions for self understanding of website editor.
- o learner creates practice website.
- o learner creates final website.
- o learner uses all features available in toolbars of editor.
- o learner publishes website on TEACH.
- o learner draws schematic of networking requirements for website development.

**11. List steps in developing on-line internet courses.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Use CU-SEE-ME software.
- b. Use POW-WOW software.
- c. Develop forms for interaction in a website.
- d. Review online courses available on the net.
- e. Draw schematic of internet requirements for online courses.
- f. Develop written plan for online course proposal.

***Performance Standards***

*Competence will be demonstrated:*

- o by successfully listing requirements for basic online course.



- o by successfully completing unit quiz.
- o by successfully completing final exam.

*Criteria-Performance will be satisfactory when:*

- o learner uses CU-SEE-ME software.
- o learner uses POW-WOW software.
- o learner develops forms for interaction in a website.
- o learner reviews online courses available on the net.
- o learner draws schematic of internet requirements for online courses.
- o learner develops written plan for online course proposal.

## ***Types of Instruction***

Classroom Presentation

## ***Grading Information***

### ***Grading Rationale***

Evaluation Methods: Lab work (projects and assignments) are worth 65%, and are evaluated by the instructor according to their level of difficulty, completeness, and documentation. Whether the student did most of the work on their own is also a factor.

Quizzes and Tests are 25%, with the Post Test being worth 10%.

### ***Grading Scale***

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%