

# ILLINOIS VALLEY COMMUNITY COLLEGE



## Course Syllabus

**Division:** Occupational Technologies

**Course:** CSS 1210 – Comprehensive Excel

Date: July 5, 2004  
Semester Hours: 3  
Lecture hours per week: 2  
Labs hours per week: 1  
Seminar hours per week:  
Other hours:  
Prerequisite: Previous computer experience  
Semester Offered: Fall  
Instructor(s): Staff

### I. CATALOG DESCRIPTION

In this comprehensive course in Excel students will learn basic concepts through advanced spreadsheet topics. They will use Excel to create and enhance spreadsheets. Formatting, copying, working with lists, charts, macros, printing, working with multiple sheets, and using Visual Basic to enhance sheets will be covered. Students will also learn principles of “what if” analysis, use data tables, and customize toolbars.

### II. EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

Upon completion of the course, the student will be able to:

1. Use the basic worksheet environment.
2. Format a worksheet.
3. Print.
4. Create charts.
5. Work with lists.
6. Work with multiple sheets and workbooks
7. Use data tables
8. Develop an application
9. Enhance Excel with Visual Basic

### **Outcome 1 – Students will use the basic worksheet environment**

- Competency 1.1 - Students will be able to identify the major components of the Excel environment
- Competency 1.2 –Students will be able to navigate an Excel worksheet and workbook
- Competency 1.3 - Students will open, save, print, and close a worksheet
- Competency 1.4 - Students will enter text, numbers, formulas, and functions
- Competency 1.5 - Students will edit cell contents
- Competency 1.6 - Students will copy using the fill handle and the clipboard
- Competency 1.7 - Students will learn about relative, absolute, and mixed references
- Competency 1.8 - Students will move ranges of cells
- Competency 1.9 - Students will customize menus and toolbars
- Competency 1.10 - Students will change workbook properties

### **Outcome 2 - Students format a worksheet**

- Competency 2.1 - Students will customize headers
- Competency 2.2 - Students will use number, currency, accounting, and percent formats
- Competency 2.3 - Students will align cell contents
- Competency 2.4 – Students will center across columns
- Competency 2.5 – Students will change fonts, font style, and font size
- Competency 2.6 – Students will remove cell formats
- Competency 2.7 – Students will add borders and color
- Competency 2.8 – Students will remove gridlines
- Competency 2.9 – Students will hide/unhide rows/columns
- Competency 2.10 – Students will add text and graphics

### **Outcome 3 - Students will Print**

- Competency 3.1 –Students will center print on a page
- Competency 3.2 - Students will print in landscape orientation
- Competency 3.3 - Students will print selected portions/pages

### **Outcome 4 - Students will create charts**

- Competency 4.1 - Students will identify chart elements
- Competency 4.2 - Students will learn which types of charts best represent different types of data
- Competency 4.3 - Students will create an embedded chart
- Competency 4.4 - Students will edit, reformat, move, and resize a chart
- Competency 4.5 - Students will place a chart on a separate sheet
- Competency 4.6 - Students will add pictures to a chart
- Competency 4.7 - Students will select nonadjacent ranges

### **Outcome 5 - Students will work with lists**

- Competency 5.1 - Students will identify elements of an Excel list
- Competency 5.2 - Students will freeze rows and columns
- Competency 5.3 - Students will find and replace values
- Competency 5.4 - Students will sort data
- Competency 5.5 - Students will enter, search for, edit and delete records using a data form

- Competency 5.6 - Students will filter data
- Competency 5.7 - Students will apply conditional formatting to a range
- Competency 5.8 - Students will insert subtotals
- Competency 5.9 - Students will insert page breaks
- Competency 5.10 - Students will summarize a list using pivot tables

### **Outcome 6- Students will work with multiple sheets and workbooks**

- Competency 6.1 – Students will add, delete, move, and name worksheets
- Competency 6.2 – Students will create worksheet groups
- Competency 6.3 - Students will edit multiple sheets at the same time
- Competency 6.3 - Students will consolidate sheets
- Competency 6.4 - Students will create a workbook template
- Competency 6.5 - Students will create an Excel workspace
- Competency 6.6 - Students will create a table lookup

### **Outcome 7 - Students will use data tables**

- Competency 7.1 – Students will learn principles of what if analysis
- Competency 7.2 – Students will use goal seek
- Competency 7.3 – Students will use solver to find best solutions
- Competency 7.4 – Students will create an answer report
- Competency 7.5 – Students will import data
- Competency 7.6 – Students will retrieve data from database tables

### **Outcome 8 - Students will develop an application**

- Competency 8.1 – Students will assign data validation rules to a cell
- Competency 8.2 – Students will use range names
- Competency 8.3 – Students will use auto fill
- Competency 8.4 – Students will use if functions
- Competency 8.5 – Students will protect worksheets

### **Outcome 9 - Students will enhance Excel with Visual Basic**

- Competency 9.1 – Students will record, run, and modify a macro
- Competency 9.2 – Students will assign a macro to a button
- Competency 9.3 – Students will view macro code in the Visual Basic editor
- Competency 9.4 – Students will write a macro with Visual Basic editor
- Competency 9.5 – Students will create an interactive macro

## **III. COURSE CONTENT:**

Introduction and requirements

Creating a worksheet and embedded chart

Formulas, functions, formatting and Web queries

What if analysis, charting, and working with large worksheets

Financial functions, data tables, amortization schedules, and hyperlinks

Creating, sorting, and querying a worksheet database

Creating templates and working with multiple worksheets and workbooks

Linking an excel worksheet to a Word document  
Using Visual Basic for Applications (VBA) with Excel  
Auditing, data validation, and solving complex problems  
Importing external data, tracking and routing changes, creating data maps, pivot charts, and pivot tables

#### **IV. INSTRUCTIONAL METHOD:**

Lecture  
Lab - hands-on training  
Testing  
Programming assignments  
Teacher demonstration  
Group work

#### **V. INSTRUCTIONAL MATERIALS:**

Computer overhead projection system  
Computer lab

*Microsoft Excel 2000 Comprehensive Concepts and Techniques, Shelly Cashman Quasney*

#### **VI. STUDENT REQUIREMENTS AND METHODS OF EVALUATION:**

Develop an understanding and/or a comprehensive knowledge of the items listed as course content.

- 1. Read** required material on the topic
- 2. Attend** class on current topic
- 3. Complete** all tests and homework
- 4. Ask** questions about any misunderstood area either in class, during office hours, or of the tutor
- 5. Join** in discussions

#### **Grading Scale**

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