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.

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**

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<tbody>
<tr>
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<tr>
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<td>80-89%</td>
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