

**AUSTIN COMMUNITY COLLEGE  
CONTINUING EDUCATION**

**INTERMEDIATE SPREADSHEETS  
(Excel Intermediate)**

(12 hours)

**ITSW 1046**

**COURSE SYLLABUS**

**Course Description:** Instruction in moving and copying, cell contents; sorting mathematical, statistical, and financial functions; date and time arithmetic; report generation; and built-in graphics support. Topics include advanced formatting techniques; advanced functions; database management; customizing charts; drawing pictures and linking worksheets.

**Prerequisite:** Excel Introduction or equivalent experience..

Create macros; utilize database features; apply data analysis features; and utilize linked worksheets.

**Objectives:** Each student will be able to:

- Manipulate worksheets
- Import text files
- Use templates
- Use advanced formatting techniques
- Utilize database features
- Use pivot tables
- Link and embed worksheets and workbooks
- Sort and filter data
- Create macros

**Rationale:** MS Excel is one of the most popular electronic spreadsheet programs used in the business community. This course will enable students to enhance their skills in creating professional looking spreadsheet documents.

**Required Material:** None

**Type of Course:** Short Course

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**Evaluation:** Students will be evaluated on their competency in performing a variety of hands-on exercises throughout the course. In order to grant CEU credit for the course, the students must be able to complete assessment exercises for each part of the course given by the instructor. The instructor will validate each participant's achievement of the course objectives by signing and awarding individual certificates of completion.

**Course Outline:**

1. FUNCTIONS AND FORMULAS
  - 1.1. Getting Help With Functions
  - 1.2. Nested Functions
  - 1.3. Consolidating Data Using A 3-D Reference Sum Function
  - 1.4. Mixed References Within Formulas
2. TIME & DATE FUNCTIONS
  - 2.1. Inserting The Current Time And Date
  - 2.2. TODAY
  - 2.3. NOW
  - 2.4. DAY
  - 2.5. MONTH
  - 2.6. YEAR
3. MATHEMATICAL FUNCTIONS
  - 3.1. ROUND
  - 3.2. ROUNDDOWN
  - 3.3. ROUNDUP
4. LOGICAL FUNCTIONS
  - 4.1. IF
  - 4.2. AND
  - 4.3. OR
5. MATHEMATICAL FUNCTIONS
  - 5.1. SUMIF

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**6. STATISTICAL FUNCTIONS**

- 6.1. COUNT
- 6.2. COUNTA
- 6.3. COUNTIF
- 6.4. COUNTBLANK
- 6.5. RANK

**7. TEXT FUNCTIONS**

- 7.1. LEFT
- 7.2. RIGHT
- 7.3. MID
- 7.4. TRIM
- 7.5. CONCATENATE

**8. FINANCIAL FUNCTIONS**

- 8.1. FV
- 8.2. PV
- 8.3. NPV
- 8.4. RATE
- 8.5. PMT

**9. LOOKUP FUNCTIONS**

- 9.1. VLOOKUP
- 9.2. HLOOKUP

**10. DATABASE FUNCTIONS**

- 10.1. DSUM
- 10.2. DMIN
- 10.3. DMAX
- 10.4. DCOUNT
- 10.5. DAVERAGE

**11. NAMED RANGES**

- 11.1. Naming Cell Ranges
- 11.2. Removing A Named Range
- 11.3. Named Cell Ranges And Functions

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**12. CELL FORMATTING**

- 12.1. Applying Styles To A Range
- 12.2. Conditional Formatting
- 12.3. Custom Number Formats

**13. MANIPULATING WORKSHEETS**

- 13.1. Copying Or Moving Worksheets Between Workbooks
- 13.2. Splitting A Window
- 13.3. Hiding Rows
- 13.4. Hiding Columns
- 13.5. Hiding Worksheets
- 13.6. Un-Hiding Rows
- 13.7. Un-Hiding Columns
- 13.8. Un-Hiding Worksheets

**14. TEMPLATES**

- 14.1. Using Templates
- 14.2. Creating Excel Templates
- 14.3. Displaying Hidden Template Folders On A Windows 7 Computer
- 14.4. Editing Excel Templates On A Windows 7 Computer
- 14.5. Displaying Hidden Template Folders On A Windows Vista Computer
- 14.6. Editing Excel Templates On A Windows Vista Computer.
- 14.7. Displaying Hidden Template Folders On A Windows Xp Computer
- 14.8. Editing Excel Templates On A Windows Xp Computer

**15. PASTE SPECIAL OPTIONS**

- 15.1. Using Paste Special To Add, Subtract, Multiply & Divide
- 15.2. Using Paste Special 'Values'
- 15.3. Using Paste Special Transpose Option

**16. PIVOT TABLES**

- 16.1. Creating And Using A Pivot Table
- 16.2. Filtering And Sorting Data Within A Pivot Table
- 16.3. Automatically Grouping Data In A Pivot Table And Renaming Groups
- 16.4. Manually Grouping Data In A Pivot Table And Renaming Groups

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**17. INPUT TABLES**

- 17.1. One-Input Data Tables
- 17.2. Two-Input Data Tables

**18. CHARTS**

- 18.1. Creating A Combined Line And Column Chart
- 18.2. Adding A Secondary Axis To A Chart
- 18.3. Changing The Chart Type For A Particular Data Series
- 18.4. Adding A Data Series To A Chart
- 18.5. Removing A Data Series From A Chart
- 18.6. Re-Positioning Chart Title
- 18.7. Re-Positioning The Chart Legend
- 18.8. Moving And Formatting Chart Data Labels
- 18.9. Modifying Chart Axis Scales
- 18.10. Formatting An Axis To Display Using Commas
- 18.11. Inserting Images Into Chart Columns
- 18.12. Inserting Images To Chart Bars
- 18.13. Formatting The Chart Plot Area Using A Picture
- 18.14. Formatting The Chart Area Using A Picture

**19. LINKING & EMBEDDING**

- 19.1. What Is Embedding And Linking?
- 19.2. Linking Data Within A Worksheet
- 19.3. Linking Cells Between Worksheets Within A Workbook
- 19.4. Linking Data Between Workbooks
- 19.5. Linking Data From Excel To A Word Document
- 19.6. Linking An Excel Chart To A Word Document
- 19.7. Updating, Locking And Breaking Links

**20. SORTING AND FILTERING DATA**

- 20.1. Sorting Data By Multiple Columns At The Same Time
- 20.2. Applying A Pre-Installed Custom Sort
- 20.3. Creating A Customized List And Performing A Custom Sort
- 20.4. Removing A Customized List
- 20.5. Using Autofilter
- 20.6. Using Autofilter To Perform Multiple Queries
- 20.7. Top 10 Autofilter

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- 20.8. Removing All Autofilters From A Worksheet
- 20.9. Advanced Filter Criteria
- 20.10. Sub-Totaling
- 20.11. Removing Subtotals
- 20.12. Expanding And Collapsing Outline Detail Levels
- 21. MACROS
  - 21.1. Macro To Change The Page Set-Up
  - 21.2. Macro To Apply A Custom Number Format
  - 21.3. Macro To Format A Cell Range
  - 21.4. Macro To Insert Fields Into The Header Or Footer
  - 21.5. Assigning A Macro To A Button On The Quick Access Toolbar
  - 21.6. Deleting Macros