## 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 ad 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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#### **COURSE SYLLABUS**

- 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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## **COURSE SYLLABUS**

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		

Manually Grouping Data In A Pivot Table And Renaming Groups

16.4.

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## **ITSW 1046**

## **COURSE SYLLABUS**

17. INPUT TABLES

17.1.

17.2.

One-Input Data Tables

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 Sub-Totaling				
	20.11.	Removing Subtotals				
	20.12.	Expanding And Collapsing Outline Detail Levels				
21.	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				