

BT-2700: ADVANCED BUSINESS SPREADSHEETS (EXCEL)

Cuyahoga Community College

Viewing: BT-2700 : Advanced Business Spreadsheets (Excel)

Board of Trustees:

10/26/2023

Academic Term:

Fall 2024

Subject Code

BT - Business Technology

Course Number:

2700

Title:

Advanced Business Spreadsheets (Excel)

Catalog Description:

Study and implementation of intermediate and advanced spreadsheet application features as applied within business environments. Focus on data analysis tools, collaboration, statistical functions, data imports/exports, auditing tools, Business Intelligence tools and macros.

Credit Hour(s):

3

Lecture Hour(s):

2

Lab Hour(s):

2

Requisites

Prerequisite and Corequisite

BT-1700 Business Spreadsheets (Excel)

Outcomes

Course Outcome(s):

Utilize predefined spreadsheet functions for date, financial, logical, mathematical, lookup, and database business scenarios.

Objective(s):

1. Implement various logical functions.
2. Implement lookup functions.
3. Implement database functions.
4. Implement date functions.
5. Implement financial functions.

Course Outcome(s):

Design electronic spreadsheet applications that utilize and integrate data from multiple worksheets and multiple files.

Objective(s):

1. Create groups.
2. Create and manage links.
3. Create hyperlinks.
4. Create 3D formulas.

5. Create 3D references.
6. Open and manipulate multiple workbooks.
7. Finalize workbooks.

Course Outcome(s):

Design and build macros in order to automate processes.

Objective(s):

1. Build macros to automate routine tasks.
2. Revise macros in Structured Query Language (SQL).
3. Implement basic SQL commands.
4. Assign macros to buttons and the ribbon.
5. Apply macros to templates.
6. Manage macro security settings.

Course Outcome(s):

Interpret data by implementing advanced statistical functions.

Objective(s):

1. Measure central tendencies.
2. Implement the Analysis Toolpak add-in
3. Create histograms
4. Create forecast sheets.
5. Create trendlines.
6. Perform trend analysis.

Course Outcome(s):

Check for integrity within worksheets by applying formula auditing techniques.

Objective(s):

1. Protect worksheets.
2. Protect workbooks.
3. Implement passwords.
4. Analyze error messages.
5. Apply data validation.
6. Establish a watch window.
7. Implement the Document Inspector.

Course Outcome(s):

Import, export and manage external data.

Objective(s):

1. Import data from external sources.
2. Manage connections.
3. Export data to various file types.
4. Understand Extensible Markup Language (XML) syntax.
5. Implement Power Pivot.

Course Outcome(s):

Implement Business Intelligence (BI) spreadsheet tools to manage data.

Objective(s):

1. Understand BI terminology.
 2. Apply BI features to existing data.
 3. Transform data.
 4. Create 3D maps.
 5. Analyze data following BI application of tools.
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Methods of Evaluation:

1. Hands-on tasks and assignments.
2. Comprehensive case studies and projects.
3. Objective and written examinations.
4. Discussion board forums.

Course Content Outline:

1. Statistical functions
 - a. Standard deviation
 - b. Frequency
 - c. Correl
 - d. Rank and Percentrank
 - e. Large, small
 - f. Analysis toolpak
 - g. Forecast sheets
 - h. Trendlines
2. Lookup Functions
 - a. XMatch and index
 - b. Address and Indirect functions
 - c. XLOOKUP
 - d. Formulertext function
3. Database functions
 - a. DSUM, DAVERAGE
 - b. DMIN, DMAX
 - c. DCOUNT
4. Business intelligence tools
 - a. 3D maps
 - b. PowerPivot
5. Manipulation of multiple worksheets
 - a. Create groups
 - b. Ungroup worksheets
 - c. Enter data into groups worksheets
 - d. 3 D Formulas
 - e. Link cells
6. Insert hyperlinks
 - a. Edit hyperlinks
 - b. Remove hyperlinks
7. Formula auditing techniques
 - a. Restricting values to a drop-down list
 - b. Validating data
 - i. Specify data validation criteria
 - ii. Create an input message
 - c. Create an error alert
8. Auditing formulas
 - a. Trace precedents and dependents
 - b. Check for and repair errors
 - c. Evaluate a formula
 - d. Avoid circular references
9. Setting up a watch window

10. Collaboration features
 - a. Insert comments
 - b. Manage comments
11. Manage Templates
 - a. Create templates
 - b. Customize templates
 - c. Create styles
12. Build macros
 - a. Create (record) the macro
 - b. Play or test a macro
13. Create a macro button
 - a. Work with macro security
 - b. Apply basic Visual Basic for Applications (VBA)

Resources

Mary Anne Poatsey. *Exploring Microsoft 365 Excel 2021*. 1st. Boston:Pearson, 2023.

Patrick Carey. *New Perspectives Collection, Microsoft® 365® & Excel® 2021 Comprehensive*. 1st ed. Boston: Cengage Learning, 2023.

Steven M. Freund. *Shelly Cashman Series Microsoft Office 365 & Excel 2019: Comprehensive*. Boston: Cengage Learning, 2020.

Resources Other

Microsoft Office Specialist (MOS) Excel 2019 Expert certification exam

Microsoft Office Specialist (MOS) 365 Apps Excel Expert certification exam

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