

**Departmental Syllabus**

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**Prepared by the Department of Business**

**Date of Departmental Approval:** January 18, 2018

**Date approved by Curriculum and Programs:** January 31, 2018

**Effective:** Fall 2018

**1. Course Number: GIT125**

**Course Title: Microsoft® Excel for Business Applications**

**2. Description:**

Students gain an advanced understanding of the Microsoft® Excel environment by completing a variety of exercises designed to develop mastery of the principle features of Excel used in business. Students create, manage, and distribute professional workbooks for a variety of specialized purposes and situations as well as customize the Excel environment to meet project needs and to enhance productivity. This course covers the material for the Microsoft® Office User Specialist Excel Expert exam.

**3. Student Learning Outcomes** (instructional objectives, intellectual skills):

Upon successful completion of this course, students develop a conceptual understanding of electronic workbooks and the ability to create and manipulate workbooks, data, and graphs using Excel.

• **Create and manage worksheets and workbooks.**

- Design and develop Excel workbooks to solve business problems.
- Navigate to a named cell, range, or workbook element.
- Insert and remove hyperlinks.
- Search for data within a workbook.
- Format worksheets and workbooks (manually and using styles and themes).
- Customize options and views for worksheets and workbooks.
- Modify workbook properties.
- Configure worksheets and workbooks for distribution (Set print options, save workbooks in alternative file formats).
- Inspect a workbook for hidden properties or personal information, for accessibility issues, and for compatibility issues.
- Use Help and develop proficiency using Excel documentation and online references.
- Document workbooks for Sarbanes-Oxley compliance.
- Write user documentation (user manuals).

• **Manage data cells and ranges.**

- Insert data in cells and ranges.
- Replace data.
- Cut, copy, and paste data using special paste options.
- Use Auto Fill options.
- Insert and delete cells, rows, and columns.
- Format cells and ranges (merge, modify alignment, apply number formats, apply cell formats, apply cell styles).
- Summarize and organize data (sparklines, outline data, subtotals, conditional formatting).

- **Create and manage tables.**
  - Create an Excel table from a cell range.
  - Convert a table to a cell range.
  - Add or remove table rows and columns.
  - Apply and configure table styles.
  - Insert total rows.
  - Filter and sort a table.
  - Remove duplicate table records.
- **Perform operations with formulas and functions.**
  - Insert references and perform calculations using formulas.
  - Perform calculations using functions.
  - Perform logical operations using functions.
  - Format text and dates using functions.
- **Create charts and objects.**
  - Create and modify charts (add additional data series, switch between rows/columns in source data, analyze data using Quick Analysis).
  - Format graphic elements (resize charts, add/modify chart elements, apply chart layouts and styles, move charts to a chart sheet).
  - Insert text boxes, shapes, and images.
  - Modify object properties.
  - Add alternative text to objects for accessibility.
- **Manage workbook options and settings.**
  - Save a workbook as a template.
  - Display hidden ribbon tabs (Developer) and install Add-Ins (Solver, Data Analysis ToolPak)
  - Set macro security options and digital signatures.
  - Create, edit, save, modify, and assign macros to buttons.
  - Reference data in another workbook, reference data by using structured references.
  - Restrict editing and protect worksheets and workbook structures and encrypt with passwords.
  - Configure formula calculation options.
  - Define and manage named cells, data ranges, and tables.
  - Manage workbook versions.
  - Set up workbooks to share with multiple users.
    - Set privacy options.
    - Accept, reject, and track changes in workbooks and review comments.
    - Review changes using a tracking log.
    - Merge and compare shared workbooks.
- **Apply custom data formats and layouts.**
  - Create custom number formats.
  - Populate cells using advanced Fill Series options.
  - Configure data validation.
  - Apply advanced conditional formatting and filtering (custom conditional formatting rules using formulas).
  - Create a modify custom workbook elements (custom color formats, create and modify cell styles, create and modify custom themes).
  - Insert and configure form controls.
  - Prepare a workbook for internationalization.

- **Create advanced formulas.**
  - Perform logical operations using AND, OR, and NOT functions.
  - Perform logical operations using nested functions.
  - Perform logical statistical operations (SUMIF, AVERAGEIF, COUNTIF, etc.)
  - Look up data using LOOKUP, MATCH, and INDEX functions.
  - Apply advanced date and time functions.
- **Troubleshoot formulas.**
  - Trace precedence and dependence.
  - Monitor cells and formulas using the Watch Window.
  - Validate formulas using error checking rules.
  - Evaluate formulas.
- **Create advanced charts and tables.**
  - Create and manage advanced charts (trendlines, dual-axis charts, save as a template).
  - Create and manage PivotTables.
    - Modify field selections and options.
    - Create slicers.
    - Group PivotTable data.
    - Reference data in a PivotTable using GETPIVOTDATA function.
    - Add calculated fields.
    - Format PivotTable data.
  - Create and manage PivotCharts.
    - Manipulate options in existing PivotCharts.
    - Apply styles to PivotCharts.
    - Drill down into PivotChart details.
- **Perform Data Analysis and Business Intelligence**
  - Import, transform, combine, display and connect to data.
  - Consolidate data.
  - Perform data analysis using the Data Analysis ToolPak.
  - Perform What-if Analysis using Goal Seek, Data Tables, Scenario Manager, and Solver.
  - Use cube functions to get data out of the Excel data model.
  - Calculate data by using financial functions.

4. **Credit(s): 3**

5. **Satisfies General Education Requirement: No**

6. **Prerequisite(s):** GIT110 (Microcomputer Applications Software) **AND** ACC111 (Accounting I with Computer Applications) or ACC201 (Financial Accounting)

7. **Semester(s) Offered:** Fall and Spring

8. **Suggested General Guidelines for Evaluation:** The final grade will be based on an evaluation of lab assignments, written and hands-on examinations, and a final project.

9. **General Topical Outline (Optional):**