

JEFFERSON COLLEGE

COURSE SYLLABUS

**BIT125
SPREADSHEET APPLICATIONS**

3 Credit Hours

Prepared by:
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BIT125 SPREADSHEET APPLICATIONS

I. CATALOG DESCRIPTION

- A. Prerequisite - None
- B. 3 credit hours
- C. Spreadsheet Applications is designed to teach students to learn a powerful spreadsheet program. Students will create and edit spreadsheets and manipulate numerical data to resolve issues related to finance, education, business, & personal numerical data for decision-making purposes. (F, S)

II. EXPECTED LEARNING OUTCOMES/ASSESSMENT MEASURE

Students will, create, save, print, edit, and format worksheets.	In-class projects, homework, and exam.
Students will create and insert formulas and enhance worksheets with special features.	In-class projects, homework, end of chapter questions and exam.
Students will work with multiple windows, manipulate data between workbooks and applications.	In-class projects, homework, and exam.
Students will create and customize charts.	In-class projects, homework, end of chapter questions, and exam.
Students will perform advanced sort and filtering techniques.	In-class projects, homework, and exam
Students will perform calculations using advanced functions.	In-class projects, homework, and exam
Students will use features to perform data analysis.	In-class projects, homework, and exam
Students will integrate data by importing and exporting.	In-class projects, homework, and exam

III. COURSE OUTLINE WITH UNIT OBJECTIVES

- A. Unit 1 - Level 1: Preparing an Excel Workbook
 - 1. Creating a Worksheet
 - i. Entering Data in a Cell
 - 2. Saving, Editing Data and printing a Workbook
 - 3. Closing & Exiting Excel
 - 4. Using Automatic Entering Features
 - i. Using AutoComplete and Auto Correct
 - ii. Using AutoFill
 - 5. Opening a Workbook
 - 6. Inserting Formulas

- i. Using the Sum Button and fill handle
 - 7. Selecting Cells
 - i. Selecting Cells Using the Mouse & Keyboard
 - ii. Selecting Data within Cells
 - 8. Formatting with Predesigned Styles
 - i. Formatting with Table & Cell Styles
 - 9. Using Help
 - i. Getting Help in a Dialog Box
 - ii. Customizing Help
- B. Inserting Formulas in a Worksheet
 - 1. Writing Formulas with Mathematical Operators
 - i. Copying and writing Formulas with Relative Cell References
 - ii. Copying Formulas with the Fill Handle
 - 2. Inserting Formulas with Functions
 - i. Writing Formulas with Statistical Functions
 - ii. Displaying Formulas
 - iii. Writing Formulas with Financial Functions
 - iv. Writing Formulas with Date and Time Functions
 - v. Writing a Formula with the IF Logical Function
 - vi. Using Absolute and Mixed Cell References in Formulas
- C. Formatting an Excel Worksheet
 - 1. Changing Column Width
 - 2. Changing Row Height
 - 3. Inserting/Deleting Cells, Rows, and Columns
 - 4. Applying Formatting
 - 5. Previewing a Worksheet
 - 6. Applying a Theme
 - 7. Formatting Numbers
 - i. Formatting Numbers Using Number Group Buttons
 - ii. Formatting Numbers Using the Format Cells Dialog Box
 - 8. Formatting Cells Using the Format Cells Dialog Box
 - i. Aligning and Indenting Data
 - ii. Changing the Font, borders, and fills
 - 9. Formatting with Format Painter
 - 10. Hiding and Unhiding Columns/Rows
- D. Enhancing a Worksheet
 - 1. Formatting a Worksheet Page
 - i. Changing Margins, centering, and orientation
 - ii. Inserting and Removing Page Breaks
 - iii. Printing Column and Row Titles on Multiple Pages
 - iv. Scaling Data
 - v. Inserting a Background Picture

- vi. Printing Gridlines and Row and Column Headings
- vii. Printing a Specific Area of a Worksheet
- 2. Inserting Headers/Footers
- 3. Customizing Print Jobs
- 4. Completing a Spelling Check
- 5. Using Undo and Redo
- 6. Finding and Replacing Data in a Worksheet
- 7. Sorting Data
- 8. Filtering Data
- 9. Planning a Worksheet

E. Unit 2 - Level 1: Moving Data within and between Workbooks

- 1. Creating a Workbook with Multiple Worksheets
- 2. Cutting, Copying, and Pasting Selected Cells
 - i. Moving, copying selected Cells
 - ii. Using the Office Clipboard
 - iii. Inserting a Worksheet
- 3. Managing Worksheets
 - i. Hiding a Worksheet in a Workbook
 - ii. Formatting Multiple Worksheets
 - iii. Printing a Workbook Containing Multiple Worksheets
- 4. Working with Ranges
- 5. Working with Windows
 - i. Opening, and arranging, Multiple Workbooks
 - ii. Sizing and Moving Workbooks
- 6. Moving, Copying, and Pasting Data
 - i. Linking Data between Worksheets
 - ii. Linking Worksheets with a 3-D Reference
 - iii. Copying and Pasting a Worksheet between Programs

F. Maintaining Workbooks

- 1. Maintaining Workbooks
 - i. Creating/Renaming a Folder
 - ii. Selecting Workbooks
 - iii. Deleting Workbooks and Folders
 - iv. Deleting to the Recycle Bin
 - v. Copying Workbooks
 - vi. Sending Workbooks to a Different Drive or Folder
 - vii. Renaming Workbooks
 - viii. Printing Workbooks
- 2. Managing Worksheets
 - i. Copying & Moving a Worksheet to Another Workbook
- 3. Saving a Workbook in a Different Format
 - i. Saving a Workbook in a Previous Version of Excel
 - ii. Saving a Workbook in Text Format
 - iii. Saving in PDF Format
- 4. Formatting with Cell Styles

- i. Defining and applying a Cell Style
 - ii. Applying a Style
 - 5. Inserting Comments
 - i. Inserting, displaying, and editing a Comment
 - ii. Deleting a Comment
 - 6. Using Excel Templates

- G. Creating a Chart in Excel
 - 1. Creating a Chart
 - 2. Changing the Chart Design
 - 3. Deleting a Chart
 - 4. Changing the Chart Layout
 - 5. Changing the Chart Formatting

- H. Unit 1 – Level 2: Advanced Formatting Techniques
 - 1. Conditional Formatting
 - i. Creating a New Formatting Rule
 - ii. Editing and Deleting Conditional Formatting Rules
 - iii. Conditional Formatting Using Icon Sets
 - iv. Conditional Formatting Using Data Bars and Color Scales
 - 2. Fraction and Scientific Formatting
 - 3. Special Number Formats
 - 4. Creating a Custom Number Format
 - 5. Wrapping and Shrinking Text to Fit within a Cell
 - 6. Filtering a Worksheet Using a Custom AutoFilter

- I. Advanced Functions and Formulas
 - 1. Naming Ranges
 - 2. Statistical Functions
 - 3. Math and Trigonometry Functions
 - 4. Managing Range Names
 - 5. Lookup Functions
 - 6. Financial Functions
 - 7. Logical Functions
 - 8. Text Functions

- J. Working with Tables and Data Features
 - 1. Creating Tables
 - 2. Sorting and Filtering a Table
 - 3. Data Tools

- K. Summarizing and Consolidating Data
 - 1. Summarizing Data in Multiple Worksheets Using Range Names
 - 2. Summarizing Data by Linking to Ranges in Other Workbooks
 - i. Maintaining External References
 - 3. Summarizing Data Using the Consolidate Feature

4. Advanced Chart Formatting Techniques
 - i. Formatting Chart Axes
 - ii. Chart Gridlines
 5. Adding a Trendline to a Chart
- L. Unit 2 – Level 2: Using Data Analysis Features
1. Pasting Data Using Paste Special Options
 2. Using Goal Seek to Populate a Cell
 3. Creating Assumptions for What-If Analysis Using Scenario Manager
 4. Performing What-If Analysis Using Data Tables
- M. Importing, Exporting, and Distributing Data
1. Importing Data into Excel
 - i. Importing Data from Access
 - ii. Importing Data from a Text File
 2. Exporting Data from Excel
 - i. Copying and Pasting Worksheet Data to an Access Table
 - ii. Copying and Pasting Worksheet Data to a Word Document
 - a. Embedding excel Data into Word
 - b. Linking Excel Data into Word
 - iii. Copying and Pasting Worksheet Data to a PowerPoint Presentation
 - iv. Exporting Excel Data as a Text file

IV. METHOD OF INSTRUCTION

- A. Lecture
- B. Discussion
- C. PowerPoint Presentations

V. REQUIRED TEXTBOOK(S) WITH PUBLICATION INFORMATION

Rutkosky, et. al. Microsoft Excel 2007, Benchmark Series, Windows Edition, EMCParadigm 2008.

VI. REQUIRED MATERIALS (STUDENT)

- A. USB portable storage device, pen, paper, folder

VII. SUPPLEMENTAL REFERENCES

- A. None

VIII. METHOD OF EVALUATION (basis for determining grade)

- A. Attendance - 5%
- B. Homework - 40%
- C. Tests - 55%

IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

X. ACADEMIC HONESTY STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.