Business Education Planned Course: Microsoft Excel – Grades 9-12

State Curriculum Standards:

1.1.11A	Locate various texts, media and traditional resources for assigned and independent projects before reading.
1.1.11C	Use knowledge of root words and words from literary works to recognize and understand the meaning of new words during reading. Use these words accurately in speaking and writing.
1.1.11D	Identify, describe, evaluate and synthesize the essential ideas in text. Assess those reading strategies that were most effective in learning from a variety of texts.
1.1.11E	Establish a reading vocabulary by identifying and correctly using new words acquired through the study of their relationships to other words. Use a dictionary or related reference.
1.1.11F	Understand the meaning of and apply key vocabulary across the various subject areas.
1.1.11H	Demonstrate fluency and comprehension in reading.
1.2.11A	Read and understand essential content of informational texts and documents in all academic areas
1.2.11B	Use and understand a variety of media and evaluate the quality of material produced.
1.4.11B	Write complex informational pieces.
1.1.11E	Write a personal résumé.
1.5.11F	Edit writing using the conventions of language.
2.2.11A	Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations.
2.2.11F	Demonstrate skills for using computer spreadsheets and scientific and graphing calculators.
2.4.11E	Demonstrate mathematical solutions to problems (e.g., in the physical sciences).
2.5.11B	Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.8.11D	Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.
2.8.11H	Select and use an appropriate strategy to solve systems of equations and inequalities using graphing calculators, symbol manipulators, spreadsheets and other software.
2.8.11Q	Represent functional relationships in tables, charts and graphs.
2.11.11B	Interpret maximum and minimum values in problem situations.

Unit: **Creating a Worksheet and Embedded Chart**

Content Standard: **Creating a worksheet with calculations and an embedded chart for first quarter sales.**

Course Content	Student Performance	Resources	Assessments
A. The Excel Worksheet Window • Menu bar • Toolbars • Cell • Rows and columns	• Identify the windows and toolbars	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003) • IBM compatible computer	• Oral quiz • True/false, multiple choice, and short answer questions • Project
B. Entering Text • Title • Column and row titles • Numeric data • Calculating a sum • Fill handle	• Type in titles and numeric data in a worksheet and use the fill handle in place of typing	• Microsoft Windows XP and Office 2003 software • Student computer data files	• Labs
C. Formatting • Style, size, attributes • AutoFormat • Centering across columns • Name box	• Format the worksheet to make it easier to read and understand		
D. 3-D Column Chart • Chart wizard • Embed chart	• Create and embed chart to show the worksheet in picture format		
E. Saving a Worksheet	• Save a worksheet		
F. Printing, Quitting, and Opening a Worksheet	• Open, print and quit a worksheet		
G. AutoCalculate	• Use autocalculate to determine totals		
H. Correcting Errors	• Correct errors in the worksheet		

Unit: **Formulas, Functions, Formatting and Web Queries**

Content Standard: **Creating a worksheet with formulas and functions and changing the format manually.**

Course Content	Student Performance	Resources	Assessments
A. Entering Titles and Numbers	• Type multiple lines in the same cell	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003)	• Oral quiz

B. Entering Formulas
  • Order of operation
  • Point mode
  • Fill handle
  • AutoSum
  • Select nonadjacent cells
	• Enter formulas using different modes		• True/false, multiple choice, and short answer questions

		• IBM compatible computer	• Project
		• Microsoft Windows XP and Office 2003 software	• Labs

C. Average, Max and Min Functions
  • Keyboard and mouse
  • Edit formula box and functions box
  • Paste function box
	• Apply the average, max and min function formulas in different methods	• Student computer data files	

D. Verifying Formulas
  • Range finder
  • Auditing commands
	• Verify formulas using different methods		

E. Formatting Worksheet
  • Font, size, alignment, and attributes
  • Background and font colors
  • Formatting numbers
  • Conditional formatting
  • Changing column/row widths and heights
	• Format the worksheet to make it easier to read and understand		

	• Check spelling of a		

F. Checking Spelling	worksheet		

Course Content	Student Performance	Resources	Assessments
G. Saving	• Save a worksheet		

H. Printing
  • Portrait or landscape
  • Values or formula view
  • Scaling
	• Print worksheet in different modes		

I. Changing Sheet Names	• Rename workbook sheets		
J. Web Queries	• Produce real-time worksheets		
K. Importing External Data	• Update worksheets		

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Unit: **What-If Analysis, Charting, and Working with Large Worksheets**

Content Standard: **Creating a worksheet using the draw toolbar, making assumptions, using what-if and absolute cell references and creating charts**.

Course Content	Student Performance	Resources	Assessments
A. Rotating Text and Using the Fill Handle for a Series B. Using Format Painter Button • Increase column width C. Inserting and Deleting • Rows, columns D. Numbers with Format Symbol E. Freezing title F. Displaying Date and Time G. Absolute vs. Relative H. The If Function I. Drawing Toolbar • Displaying and docking • Drop shadow • Font size • Background colors J. 3-D Pie Chart • Separate chart sheet • Chart titles and labels • Changing colors • Exploding • Rotating and tilting • Leader lines K. What-If Analysis • Changing values	• Creating titles to set them apart • Create attributes them apply them to other cells • Insert and delete rows and columns in a worksheet • Type numbers and change the format • Freeze row and column titles • Display date and time in a cell on the worksheet • Write formulas when copied can be absolute or relative • Use the if function • Create attributes for the worksheet using drawing • Create a 3-D pie chart with different attributes • Use Excel to answer what-if questions and goal seek to analyze data	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003) • IBM compatible computer • Microsoft Windows XP and Office 2003 software • Student computer data files	• Oral quiz • True/false, multiple choice, and short answer questions • Project • Labs • Test-concepts • Test-applications **Remediation:** • Reread project • Apply your knowledge **Enrichment:** • Cases and places

• Goal seeking			

Unit: **Financial Functions, Data Tables, Amortization Schedules and Hyperlinks**

Content Standard: **Analyze data using recalculation, goal seeking capabilities, and amortization schedules**.

Course Content	Student Performance	Resources	Assessments
A. Outlining and Adding Borders • Formatting cells • Entering loan data B. Creating Cell Names Based on Row Titles • Name command • Define command • Financial formulas • Series C. Using a Data Table • Creating a percent series • Entering formulas • Defining the data table • Formatting the table D. Input Value Pointers and Conditional Formatting E. Creating an Amortization Schedule • Using the fill handle • Entering formulas • Entering new loan data F. Adding a Hyperlink	• Add and outline to the loan analysis section • Create cell names using the name command to refer to related data • Create a data table to show answers generated by formulas in which different values have been substituted • Use conditional formatting to color the background of the cell that agrees with the input cell • Show the beginning and ending balances and the amount of payment that applies to principal and interest for each year using an amortization schedule • Create a link on a spreadsheet to another file • Protect worksheet cells that	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003) • IBM compatible computer • Microsoft Windows XP and Office 2003 software • Student computer data files	• Oral quiz • True/false, multiple choice, and short answer questions • Project • Labs • Excel test **Remediation:** • Reread project • Apply your knowledge **Enrichment:** • Cases and places

G. Protecting the Worksheet	should not be changed		

Unit: **Creating, Sorting, and Querying a Worksheet Database**

Content Standard: Create a database for business purposes and be able to sort and query it in various ways.

Course Content	Student Performance	Resources	Assessments
A. Creating a Database • Set up • Naming • Entering Records • Data Form B. Adding Computational Fields • Calculating percentages • VLookup C. Using a Data Form to View/Change Data D. Sorting the Database • Ascending/descending • Multiple field sort E. Displaying Subtotals • Adding/removing F. Finding Records • Computed • Wildcard G. Filtering • AutoFilter • Custom criteria • Criteria range • Advanced filter • Extracting records H. Database Functions • DAvergage • DCount	• Utilize Excel to create a worksheet database • Utilize function tools to create additional field in the database • Alter existing data via a data form • Reorder the database according to various criteria • Calculate and display subtotals and totals • Use various criteria to extract data • Using a variety of methods, extract data based on given criteria • Utilize formulas to pull statistical data from spreadsheet database	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003) • IBM compatible computer • Microsoft Windows XP and Office 2003 software • Student computer data files	• Oral quiz • True/false, multiple choice, and short answer questions • Project • Labs • Excel test **Remediation:** • Reread project • Apply your knowledge **Enrichment:** • Cases and places

I. Printing and Saving	• Update and print complete work		

Unit: **Creating Templates and Working with Multiple Worksheets and Workbooks**

Content Standard: **Develop a template and utilize worksheets within a workbook for consolidation purposes.**

Course Content	Student Performance	Resources	Assessments
A. Creating a Template • Setting up a template • Creating formulas	• Create a template and test it utilizing dummy data	• <u>Microsoft Office XP Introductory Concepts and Techniques</u> (South-Western Publishing 2003)	• Oral quiz • True/false, multiple choice, and short answer questions
B. Formatting the Template • Customized format codes	• Format the template to match predetermined specifications	• IBM compatible computer	• Project
C. Creating a Workbook • Drilling an entry • Referencing and copying cells in other worksheets	• Modify the various worksheets and use sheet references	• Microsoft Windows XP and Office 2003 software • Student computer data files	• Labs • Test-concepts • Test-applications
D. Drawing a 3-D Cone Chart • WordArt chart title	• Create a complete chart that illustrates trends shown in the worksheets		
E. Change the Header and Page Formatting	• Modify the page setup		**Remediation:** • Reread project • Review and edit project • Apply your knowledge
F. Page Breaks	• Create deliberate breaks in copy		
G. Find and Replace	• Alter existing text in a mass update		**Enrichment:** • Cases and places
H. Consolidating Data by Linking Workbooks • Updating links	• Consolidate data from the other worksheets onto a total worksheet using linking		