

CA, J 1 – Introduction to Spreadsheets

P. Coombs, McGraw High School Business Education

<p>Course: CAPS 121 – MS Office Excel</p>	<p>Standard 1: Career Development: Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions. Standard 2: Integrated Learning: Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings. Standard 3a: Universal Foundation Skills: Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace. Standard 3b: Career Majors: Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.</p>	<p>Performance Indicators - LWDAT</p>	<p>Essential Questions</p>	<p>Essential Knowledge & Skills</p>	<p>Classroom Ideas</p>	<p>Assessment Ideas</p>
<ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze Office. ▪ Explain and demonstrate the proper procedures for creating and editing documents using Office. ▪ Demonstrate how to use the new features of Excel ▪ Demonstrate how to create a workbook, use editing and style tools, and explore the home tab ▪ Demonstrate how to create simple tables with formulas ▪ Create and modify a sales spreadsheet and files for Campbell Confections 	<p>Unit 1 What are the basic skills needed to format in MS Office Excel ?</p>	<ul style="list-style-type: none"> ▪ Excel New Features: User Interface MS Office “Ribbon” QuickAccess Toolbar MS Office Window Frame Working with the Ribbon Contextual Tabs Excel Galleries ▪ Introduction to Excel Getting started with Excel, Creating a workbook, using editing and style tools, and exploring home tab commands ▪ Creating a Workbook: Entering labels, changing the document themes, selecting cell ranges, modifying columns, entering values and dates, saving and entering basic formulas ▪ Using Editing and Style Tools: Using AutoCorrect and Error Checking, Spell Checking, Find and Replace, Autofill, applying table and cell styles, and preparing headers and footers for your SS ▪ Exploring Home Tab <p>Commands: Inserting and deleting sheets and cells, using AutoComplete and Pick from Drop-Down Lists, copy, paste, and cut cell contents, working with columns and rows, applying borders and fill, using data bars</p>	<p>New Features Overview with “Mini-Document Lessons” to apply to each new feature</p> <p>MS Office Button</p> <p>The Ribbon</p> <p>Screen Tips</p> <p>Quick Access Toolbar</p> <p>MS Office Window Frame</p> <p>Dialog Box Launchers</p> <p>Contextual Tabs</p> <p>Galleries</p> <p>Live Preview</p> <p>Excel SS Enhancements</p> <p>Skills Review Exercises 1</p> <p>Skills Review Exercises 2</p> <p>Skills Review Exercises 3</p> <p>Skills Review Exercises 4</p> <p>Critical Thinking Questions</p> <p>Create simple workbooks & practice simple navigations</p> <p>Create a simple sales ss with simple formulas</p> <p>Update CC sales ss</p> <p>Create a calendar and apply AutoFill, Freeze and split windows</p> <p>Edit the data bar with SS for CC</p>	<p>Campbell’s Confections Case Study – applications as per unit</p> <p>Lesson Applications 1</p> <p>Lesson Applications 2</p> <p>Lesson Applications 3</p> <p>Lesson Applications 4</p> <p>Create a worksheet to manipulate style tools and home tab commands</p> <p>Create your own sales ss for a pizzeria</p> <p>Create a monthly budget with simple formulas</p> <p>Create a product research table for five different cars</p> <p>Build a calendar workbook for Campbell Confections (CC)</p> <p>Create a local restaurant ss</p> <p>Prepare a worksheet of book and DVD titles – use costs and shipping charges for the media</p>		

Car 5 – Introduction to Spreadsheets
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<p>Performance Indicators</p>	<p>Essential Questions</p>	<p>Essential Knowledge & Skills</p>	<p>Classroom Ideas</p>	<p>Assessment Ideas</p>
<ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze documents ▪ Explain formula building and references ▪ Analyze syntax errors ▪ Demonstrate ability to create an auto loan calculator ▪ Evaluate function agreements ▪ Make critical decisions to enhance and modify documents ▪ Communicate thoughts and ideas creatively through document completion 	<p>Unit 2 How can formulas and functions be used in MS Office Excel?</p>	<ul style="list-style-type: none"> ▪ Exploring Formula Basics: Using templates, building simple formulas, using order of operations in formulas, using relative, absolute and mixed references, and working with the Page Layout tab ▪ Working with Functions: Using math and trig functions, using statistical functions, icon sets, group worksheets, and date and time functions ▪ Using Logical and Financial Functions: Using IF, AND, OR, NOT, cell styles, page breaks, PMT and FV functions, and the depreciation function ▪ Rounding and Nesting Functions: Using the INT and ROUND functions, Date and time, nesting functions and creating hyperlinks 	<p>Skills Review Exercises 5 Skills Review Exercises 6 Skills Review Exercises 7 Skills Review Exercises 8 Critical Thinking Questions Utilize the Campbell's Confections document files for editing and formatting Create workbooks from templates Build formulas using relative, absolute and mixed references Create a mock checkbook register using the information learned Syntax for the cell functions – diagramming Operators – keyboard use Create an auto loan calculator Format negative numbers Function agreements – problem solving Conditional formatting</p>	<p>Lesson Applications 5 Lesson Applications 6 Lesson Applications 7 Lesson Applications 8 Create your own excel ss checkbook register with formulas Create a tip calculator Create a function tip sheet Create a holiday pay calculator Create an auto loan calculator with advanced features Function Agreements – Critical Analysis Create a mileage chart for gasoline use using IF/THEN functions for US averages of automobiles</p>

CAR-3 1 – Introduction to Spreadsheets
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<p>Performance Indicators</p>	<p>Essential Questions</p>	<p>Essential Knowledge & Skills</p>	<p>Classroom Ideas</p>	<p>Assessment Ideas</p>
<ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze documents ▪ Demonstrate the use of building charts, inserting shapes, and using images and graphics appropriately ▪ Create documents using chart objects, images, and diagrams ▪ Create, open, and save documents ▪ Analyze document inspector ▪ Make critical decisions to enhance and modify documents with the new styles and templates ▪ Communicate thoughts and ideas creatively through document completion 	<p>Unit 3 How can we enhance worksheet appearance?</p>	<ul style="list-style-type: none"> ▪ Building Charts: Viewing and printing charts, working with chart elements, creating charts, editing chart data, using images, gradients, and textures, and creating a combination chart ▪ Inserting Shapes: adding and formatting callout shapes, text boxes, inserting basic shapes and arrows, using the Drawing Tools Format, comments and WordArt ▪ Using Images and SmartArt Graphics: Inserting a picture, adding a picture to a header or footer, creating a hierarchy SmartArt shape, building a cycle of shapes and using the Research tool 	<p>Skills Review Exercises 9 Skills Review Exercises 10 Skills Review Exercises 11 Critical Thinking Questions Create simple chart objects – weekly sales with charted data Using Live Preview for chart objects Manipulating data series Simple flower sales dashboards with chart objects Update past sales charts with callouts and comments Document inspector Inserting file pictures Images in headers/footers – purpose and use Hierarchy shapes – creating your own vs. using a template Cycle diagrams for Accounting</p>	<p>Lesson Applications 9 Lesson Applications 10 Lesson Applications 11 Create a simple weather ss with temperature data for the past 10 days Create a chart for your weekly expenses Create a spreadsheet for “skittle” data using callouts and comments to show simple instructions for completion Create a workbook template to use for invoicing applying charts, shapes, and Smart Art Graphics Create diagrams for time periods and business cycles Stock history diagramming Price comparison diagramming</p>

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<p>Performance Indicators</p> <ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze documents ▪ Analyze formulas to name ranges ▪ Create multiple worksheets for grouping ▪ Name ranges for worksheets ▪ Apply the VLOOKUP techniques to convert quantitative data to qualitative data ▪ Communicate thoughts and ideas creatively through document completion 	<p>Essential Questions</p> <p>Unit 4 Which advanced features use a 3-D reference and why?</p>			

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<p>Performance Indicators</p> <ul style="list-style-type: none"> Work collaboratively with other students to problem solve and analyze documents Create, edit, and apply IF ERROR functions to new and previously created documents Trace error messages Create scenarios for workbooks Analyze formulas and correct errors Evaluate the importance of consolidations Compare and contrast the use of static consolidation and dynamic consolidation 	<p>Essential Questions</p> <p>Unit 5 What auditing tools will improve worksheets use?</p> <p>Essential Knowledge & Skills</p> <ul style="list-style-type: none"> Using Auditing Tools: Evaluating formulas, Trading precedents and dependents, finding and correcting errors, using the Watch Window, and using IFERROR Using What-IF Analysis: Creating scenarios, setting highlight cells rules, managing scenarios, using Goal Seek and Solver Consolidating and Linking Workbooks: Creating static data consolidation and linking workbooks <p>Classroom Ideas</p> <ul style="list-style-type: none"> Skills Review Exercises 15 Skills Review Exercises 16 Skills Review Exercises 17 Critical Thinking Questions What is IFERROR and how can we use it? Build and evaluate simple formulas Create and set a validation list Trace error messages Apply with the file Unit and Dollar Sales from CC Use a quarterly report with figures to analyze the formulas used Enable and run macros Add scenarios to past worksheets Create trendlines to add to a chart Create a scenario summary for players of a sports team of choice Analyze static consolidation vs. dynamic consolidation Explore the online help feature <p>Assessment Ideas</p> <ul style="list-style-type: none"> Lesson Applications 15 Lesson Applications 16 Lesson Applications 17 Create a list of books titles and authors and use a data validation list that displays the categories Create a list of labels to track information about your cell phone minutes Use IFERROR with the Balance file Create new scenarios on worksheets Use Goal Seek to determine pricing Use solver to determine sales Analyze the worksheets from CC for auditing and What-IF Create a counter that parallels "number of hits" a website receives Set restrictions to your workbooks Link workbooks for CC

Resources: (1) Microsoft Office Excel : The Professional Approach Series. (Approved and required through Tompkins-cortland Community College). Kathleen Stewart. McGraw-Hill Higher Education, Boston. Online weblinks are also available and in use. Professional user id and password necessary.

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<p>Performance Indicators</p>	<p>Essential Questions</p>	<p>Essential Knowledge & Skills</p>	<p>Classroom Ideas</p>	<p>Assessment Ideas</p>
<ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze documents ▪ Create, edit, and apply custom formats ▪ Create and use a web query ▪ Import Access tables into Excel ▪ Create custom filters and auto outlines ▪ Compare and contrast one-variable and two-variable tables ▪ Prepare charts with data tables and appropriate formatting ▪ Create a PivotTable ▪ Demonstrate appropriate use of field settings 	<p>Unit 6 How can external data sources enhance workbooks?</p>	<ul style="list-style-type: none"> ▪ Using External Data Sources: Using text sources and managing imported data, using web sources, and exporting Excel data ▪ Exploring List Ranges: Sorting and filtering list ranges, creating advanced filters, using subtotals, and creating and editing outlines ▪ Using Data Tables and Pivot Tables: Building one-variable and two-variable tables, analyzing data in a PivotTable, using multiple calculations and create a PivotChart 	<p>Skills Review Exercises 18 Skills Review Exercises 19 Skills Review Exercises 20 Critical Thinking Questions Copy and paste from Word and Access Create custom formats Create a web query Copy from the web by dragging – using appropriate website referencing Import Access tables and resources Sort data using conditional formatting Create custom filters Use DMIN to find the smallest amount in a list Create auto outlines Sort and list range Compare and contrast one-variable and two-variable tables Prepare a simple sales chart and input data, create a data table, and format the data table What are the pros and cons of letting others edit your PivotTable?</p>	<p>Lesson Applications 18 Lesson Applications 19 Lesson Applications 20 Create new workbooks from documents originally created in Word for Cambell Confactions Create a web query Import Access tables and convert to text Describe types of data or tables that your school might import into Excel from the Web Create a Web query for a Web site that has importable tables Analyze the difference between a statistical function AVERAGE and the database function DAVERAGE Create an automobile list with the ability to use three database functions on another sheets to show pertinent statistics about the vehicles Create a PivotTable and Pivot fields Demonstrate how to edit field settings Create a situation where a one- or two-variable data table might be helpful</p>

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Performance Indicators	Essential Questions	Essential Knowledge & Skills	Classroom Ideas
<ul style="list-style-type: none"> ▪ Work collaboratively with other students to problem solve and analyze documents ▪ Create, edit, and apply macros ▪ Demonstrate the ability to create and use templates ▪ Analyze the use of shared workbooks ▪ Analyze how a workbook can be used by multiple persons at the same time and why ▪ Evaluate how Visual Basic relates to macros 	Unit 7 Which templates can be used in school/college/job?	<ul style="list-style-type: none"> ▪ Working with Macros: Running and viewing a macro, record a macro, and create a macro workbook ▪ Using Templates: Installing templates, using online templates, and creating a user template ▪ Using Worksheet Features: Creating a shared workbook and comparing merge workbooks 	Skills Review Exercises 21 Skills Review Exercises 22 Skills Review Exercises 23 Critical Thinking Questions Edit and print a macro Review macro code What are Visual Basic routines? Explore and download online templates Build simple templates What is a shared workbook? Create a shared workbook What is the compare and merge button command?
			Lesson Applications 21 Lesson Applications 22 Lesson Applications 23 Use Visual Basic Language to study macros Use Campbell Confection workbooks to apply macros, code, and template formatting Build a template to apply Analyze which documents at school and/or work might be candidates for templates Worksheet protection and productivity – Does it have a connection? Create a template to use as a fundraiser pledge sheet Create a workbook to share with another related group Create a workbook where all users can work in it at the same time – why would we need this?

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Learning Standards for Career Development and Occupational Studies

Standard 1: Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2: Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a: Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Standard 3b: Career Majors

Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.