



Public Affairs 6513: Skills – Excel 1 (Basic)
Syllabus
Autumn 2015

Instructor Information

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Office Hours: By Appointment

Email is the best way to contact me. I check email often, and will attempt to respond to all emails within 24 hours of receiving them.

Course Information

Meeting Day/Time: Thursdays, 5:45-7:35 (August 27 – October 8)

Location: Derby Hall 029

Credit Hours: 1

Course Description

Overview

Everyday vast amounts of information is created, manipulated, and analyzed. Tools are needed that can analyze the information and provide meaningful results to effectively harness the power of that information. The most common tool that is used in the workplace today is Microsoft Excel. That has made Excel the primary tool to perform a number of different tasks, from keeping simple lists, tracking work, performing complex analysis of data and creating reports. As such, it is important to know how to effectively use the tool and to understand some of the benefits and challenges of Excel. While Excel is a powerful tool, it is easy to corrupt the data and intentionally or unintentionally skews results. By understanding these challenges, we can incorporate mitigating controls to minimize the risk associated with Excel and increase our confidence in the tool.

This first of two Excel courses focuses on how to use Microsoft Excel from basic data entry, formatting, filtering and sorting, basic functions and formulas, basic nest formulas, and basic charts and graphs. A variety of techniques and data management concepts will be presented and discussed. Real world examples will be used to provide context.

The second Excel course focuses on how to use intermediate to advanced Microsoft Excel functionality from nested formulas to data analysis through the use of pivot tables and creating interactive worksheets.

Student Learning Objectives

Upon successful completion of this course, students will have:

- Gained an understanding of the basic functionality of Microsoft Excel.
- Utilized Excel to improve the formatting, usability, and comprehension of data.
- Formulated functions to produce calculations and manipulations of text.
- Used advanced functions to lookup data, handle error conditions, and provide conditional responses.

Class Structure

The class will consist of a mixture of lecture/discussion on Excel techniques and data analysis and hands on work with Excel. This will primarily be through the use of explained examples which will be worked on independently to ensure the skills are understood. Time will often be provided to work on the assignments and the final project in class.

Course Materials

1. Walkenbach, John (2013). Excel 2013 Bible. Wiley. ISBN: 978-1-118490365. Or Walkenbach, John (2010). Excel 2010 Bible. Wiley. ISBN: 978-0470474877.

***Note:** Please chose book that fits the version of Excel you will be using. The overall concepts will be the same from both books, however the layout of Excel shown will vary.*

Both books are available electronically from OSU Library at no cost.

2. All other readings and course materials will be supplied by the instructor through <https://carmen.osu.edu>.

Students can access textbook information via the Barnes & Noble bookstore website: www.shopOhioState.com as well as from their BuckeyeLink Student Center. This information is disseminated by B&N to all area bookstores. You may buy from a store of your choice and/or shop for books (always use ISBN# for searches) on line.

Course Requirements

The following components make up the final course grade:

Class contribution:	10%
Excel Survey:	5%
Excel Exercise 1 (Formatting):	10%
Excel Exercise 2 (Basic Formulas):	15%
Excel Exercise 3 (Advanced Formulas):	20%
Final Excel Project:	40%

Transformation of numerical grade to a letter grade will be according to the schedule below:

A	93-100	B-	80-82	D+	68-69
A-	90-92	C+	78-79	D	60-67
B+	88-89	C	73-77	E	<60
B	83-87	C-	70-72		

Class Contribution

Class contribution is critical to make this course as valuable as possible for you and your fellow students. This includes having read assigned readings before class, participating in conversations regarding those readings, asking questions, clarifying assignments, participating in the lab portion of the class, and sharing personal and professional experiences that can aid the class during discussions. Attendance is considered part of class contribution, and lack of attendance and leaving the lab portion of the class early will reduce this portion of your grade. Lack of evidence that class readings were completed will also affect this portion of your grade.

Excel Survey

This exercise will be a skills assessment. On Carmen there will be a survey to be completed to demonstrate your current level of excel knowledge. This exercise will be graded based on effort and not based on if it is 100% accurate. It is in your best interest to work through the examples.

This exercise will be due by midnight on Sunday, August 30.

Excel Exercise 1 (Formatting)

Using the dataset provided on Carmen, you will be asked to perform a number of formatting techniques to improve the look and usability of the dataset. Use any formatting techniques that were covered in class or in the book. For this assignment, you will need to:

- Correct any spelling errors in the dataset using the spell check function
- For worksheet **Part 1**:
 - Make all columns the correct width so all data in the worksheet is easy to see.
 - Add the following to the top of the worksheet:
 - A title that is clear and easy to read and helps the user understand what they are working with.
 - Headers for each column that is clear and easy to read.
 - Correctly format each column according to its datatype. Data will not necessarily be set to the right datatype when you receive the dataset. More information will be included in the Excel file regarding what datatype each column should be.
 - Use conditional formatting on two different columns to help the user better understand that column's data.
- For worksheet **Part 2**:
 - Correct any spelling errors in the dataset using the spell check function
 - Use borders and fills to make the summary table easier to read.
 - Use different sizes and colors of fonts to make the table easier to read.
 - Ensure that all fields are assigned the right datatype.

- For worksheet **Part 3**:
 - Use Styles and cell formatting (fonts, alignment, etc) to quickly format the dataset to improve its readability and usability.
 - Freeze the top row and the left column to make it easier to read this large dataset.
 - Create a header or footer for this worksheet that includes the date the worksheet was printed, the current page, and how many pages this worksheet includes.

This exercise will be submitted to the Carmen dropbox by midnight on Thursday, September 10.

Excel Exercise 2 (Basic Formulas)

Using the dataset provided on Carmen, you will be asked to use a number of basic functions to help analyze the data provided. Additional information will be provided in the Excel workbook and will include the following:

- In worksheet **Math Functions**:
 - Perform a simple math operation and apply to an entire column
 - Show the sum and average of two columns
 - Count the number of blanks in a column
 - List the maximum and minimum values in a particular column
 - Create a simple IF statement to produce a new value in a separate column
- In worksheet **Text Functions**:
 - Concatenate two columns together
 - Copy the right 4 digits of one column into another column
 - Find the position in a field of the letter P for an entire column
 - Proper case a column of text
 - Show today's date and time
 - Add 2 months to the dates in an entire column

This exercise will be submitted to the Carmen dropbox by midnight on Thursday, September 17.

Excel Exercise 3 (Advanced Formulas)

Using the dataset provided on Carmen, you will be asked to use a number of basic and nested functions to help analyze the data provided. Additional information will be provided in the Excel workbook and will include the following:

- In worksheet **Product Summary**:
 - Use vlookup to find the name of a product from the serial number. The serial number will be in this worksheet, while the product names will be in the separate worksheet **Product Information**.
 - Re-using the function developed above, add error checking to the function to handle the situation when there is no product name for the serial number.
- In worksheet **Building Summary**:
 - Build a conditional formula (IF) to display the average square feet per building for only the buildings on Main campus.

- Using a single formula, provide the number of buildings on the ATI campus.
- Using a single formula, add up the Gross Square Feet of the Newark campus.

This exercise will be submitted to the Carmen dropbox by midnight on Thursday, October 1.

Final Project

Using the **Space Database** provided, you should do the following. More information will be included in the Excel workbook.

- Data preparation: Original dataset should be formatted in a manner that makes it easy to understand the data and improves usability. Ensure that all columns are easy to read and columns are set the correct datatype.
- On the **Overview** worksheet, answer the following questions
 - How many restrooms are there are at OSU?
 - What is the average size (Spc Area) of “8W-Public Waiting” (Room Type) spaces at OSU?
 - What is the total square feet of “0A-Circulation” (Room Type) space at OSU?
- Analyze the data by adding two unique graphs on the **Overview** worksheet of your own choosing.
- In the Space Database worksheet:
 - Use conditional formatting to show the relative size of the rooms (using Data Bars or Color Scales)
 - Use conditional formatting to highlight the rooms with a capacity of more than 10.
 - Fill in the **Function Description** column by using vlookup to the find the description of the **Function Code** from the **Function Code Table** worksheet.
 - In the **SpaceID** column, create the **SpaceID** according to the instructions in the workbook.

Final Project will be submitted to the Carmen dropbox by midnight on Tuesday, October 13.

Course Policies

Assignment Submission

All assignments should be submitted through Carmen by the day they are due. Informing the instructor of your intention to be absent does not waive your obligation to submit assigned work. **Late work will be accepted with a one-third-letter grade penalty each day that it is late (A- to B+), unless prior approval is granted by the instructor.**

Grade Appeals

Grades on assignments are intended to reflect the overall quality of performance of the student. You may appeal your grade on an assignment if you think the grade does not reflect the quality of your performance on the assignment. To appeal a grade, submit a clear written explanation via email describing why you believe the assigned grade is inappropriate within one week after your work is returned. I will carefully consider all such appeals.

Academic Integrity

The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's [Code of Student Conduct](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Failure to follow the rules and guidelines established in the University's *Code of Student Conduct* may constitute "Academic Misconduct." Sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

In the Ohio State University's [Code of Student Conduct](#), Section 3335-23-04 defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and excessive quotation and paraphrasing of other's work with or without citation. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct.

For the purposes of this class, you may not work together on any assignments. You may ask each other general questions to clarify concepts and ideas, but these questions may not directly pertain to how to complete assignments. All work must be original and be your own.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact the instructor.

Disability Services

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>

Course Schedule

Week 1: August 27

Topics:

- Welcome and Introduction to the course
- Overview of syllabus and course requirements
- Framing case study
- Data management and limitations of Excel
- Excel Introduction (Navigation, formatting, viewing and printing)
- Explain Excel survey

Read:

- 2 Articles – Available on Carmen

- Chapter 1 – Introducing Excel
- Chapter 2 – Entering and Editing Worksheet Data
- Chapter 3 – Essential Worksheet Operations
- Chapter 4 – Working with Cells and Ranges
- Chapter 6 – Worksheet Formatting
- Chapter 7 – Understanding Excel Files
- Chapter 9 – Printing Your Work
- Chapter 21 – Visualizing Data Using Conditional Formatting

Due: Excel Survey by midnight on Sunday, August 30 to the Carmen dropbox.

Week 2: September 3

Topics:

- Keyboard Shortcuts
- Basic Formulas Part 1
- Cell Referencing
- Explain Excel Exercise 1 (Formatting)

Read:

- Chapter 10 – Introducing Formulas and Functions
- Chapter 13 – Creating Formulas That Count and Sum
- Chapter 16 – Miscellaneous Calculations

Due: Excel Exercise 1 (Formatting) by midnight on Thursday, September 10 to the Carmen dropbox.

Week 3: September 10

Topics:

- Basic Formulas Part 2
- Explain Excel Exercise 2 (Basic Formulas)
- Explain Excel Exercise 3 (Advanced Formulas)

Read:

- Chapter 11 – Creating Formulas That Manipulate Text
- Chapter 12 – Working With Dates and Times
- Chapter 14 – Creating Formulas That Look Up Values
- Chapter 32 – Importing and Cleaning Data (Cleaning Data section only)

Due: Excel Exercise 2 (Basic Formulas) by midnight on Thursday, September 17 to the Carmen dropbox.

Week 4: September 17 (No Class)

I will be at a conference this week.

Week 5: September 24

Topics:

- Advanced Formulas
- Simple Nest Formulas

Read:

- Chapter 31 – Making Your Worksheets Error Free

Due: Excel Exercise 3 (Advanced Formulas) due by midnight on Thursday, October 1 to the Carmen dropbox.

Week 6: October 1

Topics:

- Charts/Graphs
- Explain Final Project

Read:

- Chapter 19 – Getting Started Making Charts
- Chapter 20 – Learning Advanced Charting
- Chapter 22 – Creating Sparkline Graphics

Week 7: October 8

Topics:

- Basic Data Validation
- Pictures/Drawings
- Review Final Project

Read:

- Chapter 23 – Enhancing Your Work with Pictures and Drawings
- Chapter 26 – Using Data Validation

Due: Final Project due by midnight on Tuesday, October 13 to the Carmen dropbox.