

B&E 105: TECHNOLOGY FOR BUSINESS SOLUTIONS EXAM 1 CHECKLIST & OUTLINE

Strategy for doing well: Work along with the videos, filling out your Excel file(s) step by step. Do this until you can comfortably complete the file without any help from these notes or the videos themselves. By the time you sit for the exam, you should have been able to complete the Excel practice file(s) perfectly *several times* without assistance.

Checklist: These topics may appear on the exam. Check them off as you learn them. Anything covered in the videos can be tested. The format of the exam is like that of the practice file(s).

<input type="checkbox"/> = to start a formula	<input type="checkbox"/> COUNT
<input type="checkbox"/> * / ^ + - ()	<input type="checkbox"/> AVERAGE
<input type="checkbox"/> Filing down formulas	<input type="checkbox"/> AutoSum
<input type="checkbox"/> Relative references	<input type="checkbox"/> Common error messages
<input type="checkbox"/> Absolute references	<input type="checkbox"/> Fixing auto-formatted dates
<input type="checkbox"/> Mixed references	<input type="checkbox"/> Formatting, width, gridlines, freezing
<input type="checkbox"/> Cell formatting	<input type="checkbox"/> Excel tables
<input type="checkbox"/> EXP	<input type="checkbox"/> Sorting and multiple sorts
<input type="checkbox"/> SUM	<input type="checkbox"/> Filtering
<input type="checkbox"/> MAX	<input type="checkbox"/> Scatter plots
<input type="checkbox"/> MIN	<input type="checkbox"/> Histograms
<input type="checkbox"/> DAYS	<input type="checkbox"/> Chart elements

1. Simple Calculations (~14:40)

- = to start a formula
- * to multiply (Shift+8)
- / to divide
- ^ for exponents (Shift+6)
- + for addition
- - for subtraction
- () for numerators, denominators, exponents, and bases as needed


2. Cell References (~23:51)

- Reference a cell by entering the name in the formula or by clicking a cell after you have begun entering a formula
- Drag down or double click bottom right corner to fill down a formula
- **Relative reference:** the default when referencing cells; the location of the relative reference cell changes when the formula is filled down or across (Ex: “=B2”)

- **Absolute reference:** a reference to a cell that is not allowed to change from a set cell when the formula is filled down or across (Ex: “=\$B\$2”)
- **Mixed reference:** a reference whereby the column or row of a cell is fixed while the corresponding row or column is allowed to vary when the formula is copied down or across (Ex: “=\$B2” or “=B\$2”)
- Either enter “\$” in the appropriate place for an absolute or mixed reference or click within the formula and press the F4 key to cycle through reference options
- Formatting a cell:

Home Tab ► Number  ► Category ► Number

3. Excel Functions (~24:41)

- The function wizard  allows for searching and selection of functions.
- Basic Excel functions, some available through the “ Σ AutoSum” button in the Editing section of the Home tab. Note that the [] indicates an optional argument for the function in this and all future formula descriptions:

Function	Definition
=EXP(<i>number</i>)	Exponential function.
=SUM(<i>number1</i> , [<i>number2</i>], ...)	Sums the entered numbers or cell references.
=SUM(<i>range</i>)	Sums the cells in the selected range.
=MAX(<i>number1</i> , [<i>number2</i>], ...)	Returns the largest number of the entered numbers or cell references.
=MAX(<i>range</i>)	Returns the largest number in the selected range.
=MIN(<i>number1</i> , [<i>number2</i>], ...)	Returns the smallest number of the entered numbers or cell references.
=MIN(<i>range</i>)	Returns the smallest number in the selected range.
=DAYS(<i>end_date</i> , <i>beg_date</i>)	Returns the number of days between the ending date and beginning date.
=COUNT(<i>range</i>)	Returns the number of cells in the range that contain numbers (in the Σ AutoSum options).
=AVERAGE(<i>range</i>)	Returns the average of the numbers in the selected range (in the Σ AutoSum options)

- “ Σ AutoSum” sums or performs a function on numeric adjacent cells. Check to be sure that this function selects only the cells you want.
- Autoformatted dates can be fixed by selecting:

Home Tab ► Number  ► Category ► General ► OK




- Common error messages:

Error Message	Meaning
#####	Column is too narrow. Adjust width.
#DIV/0	Attempt to divide by 0.
#NAME?	Excel doesn't recognize function. Check spelling of function.
#NUM!	The wrong type of numeric data is used for an operation.
#REF!	Invalid reference.
#VALUE!	Incorrect input for a function.
#N/A!	Formula can't find the referenced data.

4. **S&P 500 (~18:40)**

- Formatting:
 - Double click or drag between column headings to adjust column width
 - Show or hide gridlines, headings, and the formula bar by checking or unchecking boxes in the “Show” group of the “View” tab
 - Freeze panes by selecting the first row or column you don't want to freeze, or the cell to the bottom right of the area you want to freeze, then:

View Tab ► Window ► Freeze Panes ► Freeze Panes

- Excel Table
 - Select your data, then click Table on the *Insert* tab. Check the “My table has headers” box if the first row of the data contains headings.
 - Sort by selecting  in a heading cell.
 - Multiple sorts:
 -  ► Sort by Color ► Custom Sort ► Add Level
 - Filter by selecting  and then checking/unchecking what you want visible/hidden





5. **Yield Curve (~22:54)**

- Scatter plot: select your data, then

Insert Tab ► Charts ► 

- Histogram: select your data, then

Insert Tab ► Charts ► 

- Double click the axis to make changes to bins (number, width, overflow, and underflow)
- Formatting:
 - On the **Home** tab in the *Font* and *Alignment* groups, text can be merged across cells  Merge & Center ▾, borders can be added , and cells can be shaded .
 - Chart elements (including axes) can be added by selecting the chart and clicking the  in the upper right corner.
 - Right click on column or row headers in a spreadsheet and select *Insert* to insert a column or row.