A review of entering and formatting data, conditional formatting, sort and filter, functions (count, counif, max, min, average, sum, if, vlookup), using cell references and pivot tables.

What is Excel?

Excel is an electronic spreadsheet program to perform numeric calculations, analyze and present data.

There is a Version for Microsoft Windows and another one for Mac OS.

When you open Excel you will see:
**Entering Data**

We can insert different kinds of data:

General, number, currency, date, time etc. (text, %, formula)

Enter: moves down    Shift Enter: moves up    Tab: moves right    Shift Tab: moves left

Entering Data in a Cell Range: Select range of cells, enter the number and press Ctrl+Enter

Use the Fill Handle (the key to the Autofill feature)

**Formatting**

Home tab of the Ribbon: Clipboard, font, alignment, number, styles, cells and editing groups.

Hiding Columns and Rows (select them, go to the Cells Group and select Format)

**Conditional Formatting**

Conditional formatting allows you to automatically apply formatting—such as **colors**, **icons**, and **data bars**—to one or more cells based on the **cell value**
Moving and Copying Data and Cells

Drag-and-drop
Cut and paste

Sort and Filter
Using Formulas
= (operands and operators)

<table>
<thead>
<tr>
<th>Type</th>
<th>Character</th>
<th>Operation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arithmetic</td>
<td>+ (plus sign)</td>
<td>Addition</td>
<td>=A2+B3</td>
</tr>
<tr>
<td></td>
<td>- (minus sign)</td>
<td>Subtraction or negation</td>
<td>=A3-A2 or -C4</td>
</tr>
<tr>
<td></td>
<td>* (asterisk)</td>
<td>Multiplication</td>
<td>=A2*B3</td>
</tr>
<tr>
<td></td>
<td>/</td>
<td>Division</td>
<td>=B3/A2</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>Percent (dividing by 100)</td>
<td>=B3%</td>
</tr>
<tr>
<td></td>
<td>^</td>
<td>Exponentiation</td>
<td>=A2^3</td>
</tr>
</tbody>
</table>

| Comparison  | =         | Equal to                | =A2=B3        |
|-------------| >         | Greater than            | =B3>A2        |
|             | <         | Less than               | =A2<B3        |
|             | >=        | Greater than or equal to| =B3>=A2       |
|             | <=        | Less than or equal to   | =A2<=B3       |
|             | <>        | Not equal to            | =A2<>B3       |

Functions

=COUNT (A2:A200)
=COUNTIF (B2:B200, “F”)
=MAX (E2:E200)
=MIN(E2:E200)
=AVERAGE(E2:E200)
=SUM
=SUMIF (range, criteria,[sum_range])
Using External Reference Links

When you refer to a cell that resides in another worksheet you use !: Sheet1!B2

When you refer to a cell that resides in another file : `[filename.xlsx] Sheet1’!B2

Using Cell References

Cell References: Use them instead of values. If the original value changes, the result will be updated.

Absolute reference: To lock the cell you use the dollar sign $ ($C$4). Press F4

Pivot Tables: they allow you to summarize large amounts of spreadsheet data.

Insert: Pivot Table

Graphs:

Insert

Shortcuts (see list)