

Excel Workshop

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Workshop files: www.blogs.ubc.ca/wtamagi

What is Excel?

Spreadsheet tool

Charting tool

Data Analysis Tools.

Easy to learn, no programming background experience required.

Alternatives?

Google Docs - online shareable spreadsheet and charting

R Studio (R engine) - free data modelling and graphing

MS Access - database, queries, reports

SAS, SPSS, Matlab - Statistical packages, used by researchers for writing papers.

nVivo - qualitative analysis

Azure - big data cloud data processing

Chartwell font - infographics

Tableau - interactive charts for presentating during meetings, kiosks

Tableau free for students

<https://www.tableau.com/academic/students>

nVivo free one year license www.connect.ubc.ca

MS Imagine Store for LFS Students

<https://lc.landfood.ubc.ca/microsoft-software/>

Windows 10 Education (incl. bitlocker), Azure, MS Access

Where to get Excel?

UBC Students can download office 365 for a 1 year license at download.ubc.ca.

Setup an Microsoft Account.

For Windows PCs and Macs

Preference for Windows Excel.

Excel in Computer Labs

MCML 192 and 194 (TV in 194)

MS Office

Adobe Creative Cloud

Dual display screens

Pay for print in labs.

How to begin using Excel with your data

Open an spreadsheet in Excel and add your data manually.

Import data as an Excel (xlsx/xls) or CSV file.

CSV is a comma delimited text file.

OPEN csv

Or import from text and follow wizard tool for delimiting columns of data.

Data table

Assign a name to your variable column.

Choose a data type for column. Default is General type.

Data cells can be modified.

Rows and columns of data can be added, deleted, inserted anywhere on spreadsheet.

Table can be formatted, change background color, lines, font styling.

What interested faculty, staff, graduate students, sessional, worklearns, and others in attending the Faculty BBQ?

1. I love BBQs
2. I love desserts and drinks
3. It is family oriented
4. It is fun and welcoming
5. Opportunity to meet new people
6. Other

BBQ Data - what interested attendees

Copy columns A and B to new sheet.

Convert text values to columns.

Re-organize and wrangling data for generating summary report.

Filter blank (no value) entries and copy to a new sheet.

BBQ Report and Chart

Run Pivot Table to generate table report.

Create Charts.

Merging two data sets by column record

Requires scripting using VLookup function. Looks like this,

```
=IF(ISNA(VLOOKUP(C2,'quize  
scores'!A$2:B$5,2,FALSE))=TRUE,"",VLOOKUP(C2,'quize  
scores'!A$2:B$5,2,FALSE))
```

Looks up student id number record in table. If found adds quiz score to gradebook table.

studentid	score
12345678	60.00%
12345679	80.00%
12345676	70.00%
12345687	55.00%

IF(ISNA(VLOOKUP(C2,'quiz scores'!A\$2:B\$5,2,FALSE))=TRUE,"",VLOOKUP(C2,'quiz scores'!A\$2:B\$5,2,FALSE))

Gradebook

Last Name	First Name	Username	Student ID	Last Access	Availability	Quiz 1
Smith	Jane	12345678	12345678	20:56.0	Yes	0.6
Doe	John	12345679	12345679	44:06.0	Yes	0.8
White	Sally	12345676	12345676	01:19.0	Yes	0.7
	Mike	12345687	12345687		yes	0.55

BBQ Grill Score on Food Items

Summarize food scoring data. How did the attendees **like** each food item, ranking food out of scale of **100**.

Use summation functions to generate descriptives.

- Mean (average)
- Min (minimum value for data column)
- Max (maximum value for data column)
- Sample size

Hotdog(s)

Grilled Vegetables (Zucchini & Eggplant)

Vegetable Skewers

Beef Skewers

Grilled Beef Steak Cubes

Grilled Chicken

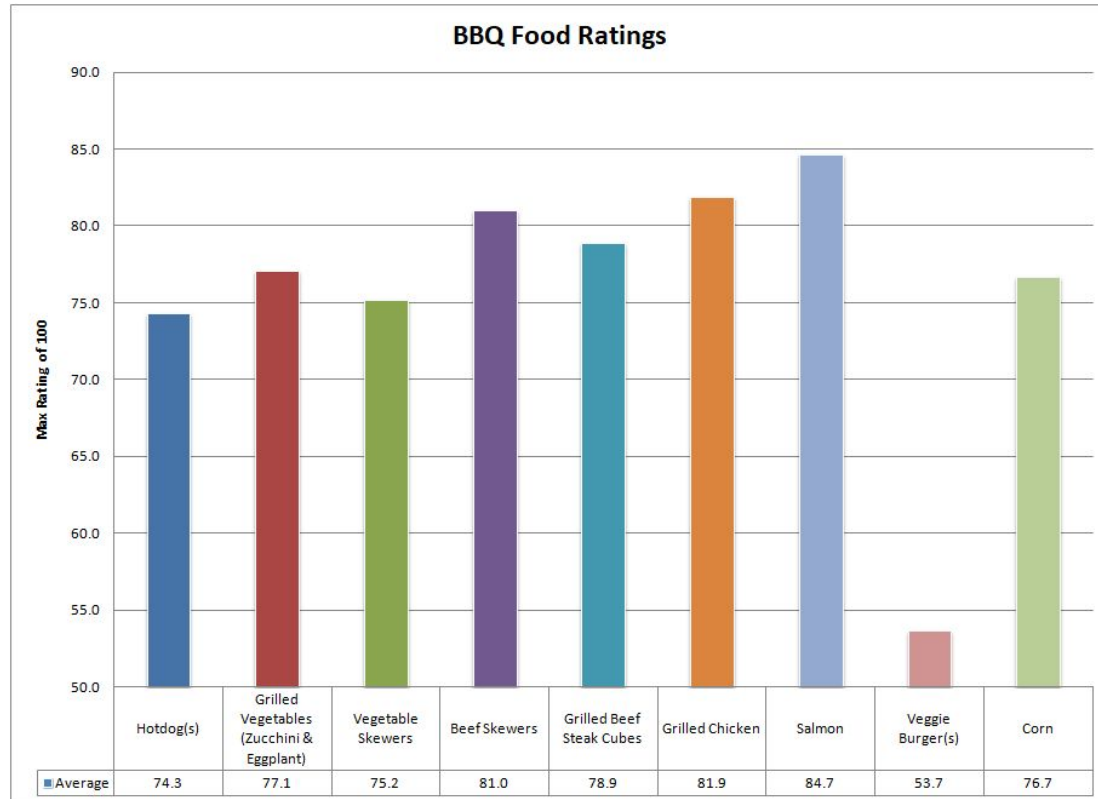
Salmon

Veggie Burger(s)

Corn

	Hotdog(s)	Grilled Vegetables (Zucchini & Eggplant)
Average	74.3	77.1
Min	30	50
Max	100	100
Count	17	20

Create a bar chart showing the average ranking per grill item.



100 Mile House Climate Data 1970 - 1999

100milehouse-climatedata.csv

1. **Import csv** file as a comma delimited file into Excel.
2. Make a **copy** of the raw climate data.
3. **Cleanup** data.
4. Sort data by Month (1..12)
5. Use Subtotals to calculate average by month.
6. Mean max temp, min temp, temp, rain, snow, total precip.

Part 2: Copy subtotals to another worksheet

1. On left sidebar see boxes

1

2

3

Box 2 will display only subtotals and hide rest.

Part 3: Select subtotals and copy

1. Select the rows of subtotals.
2. Press the key F5 on your keyboard. Or CTRL - G to open the Go To Menu.
3. Press the Special button.
4. Select “Visible cells only”.

Then you can copy the subtotal data only into a new sheet.

Average Monthly Climate table

Copy to new sheet.

Cleanup table removing extra columns not required.

Change decimal places to one decimal place.

Create a new column with a month series for labeling rows by month, Jan, Feb...Dec.

Create a chart of temperature and precipitation

Chart with two vertical axes. Primary axis shows temperature. Secondary axis shows rain and snow mm.

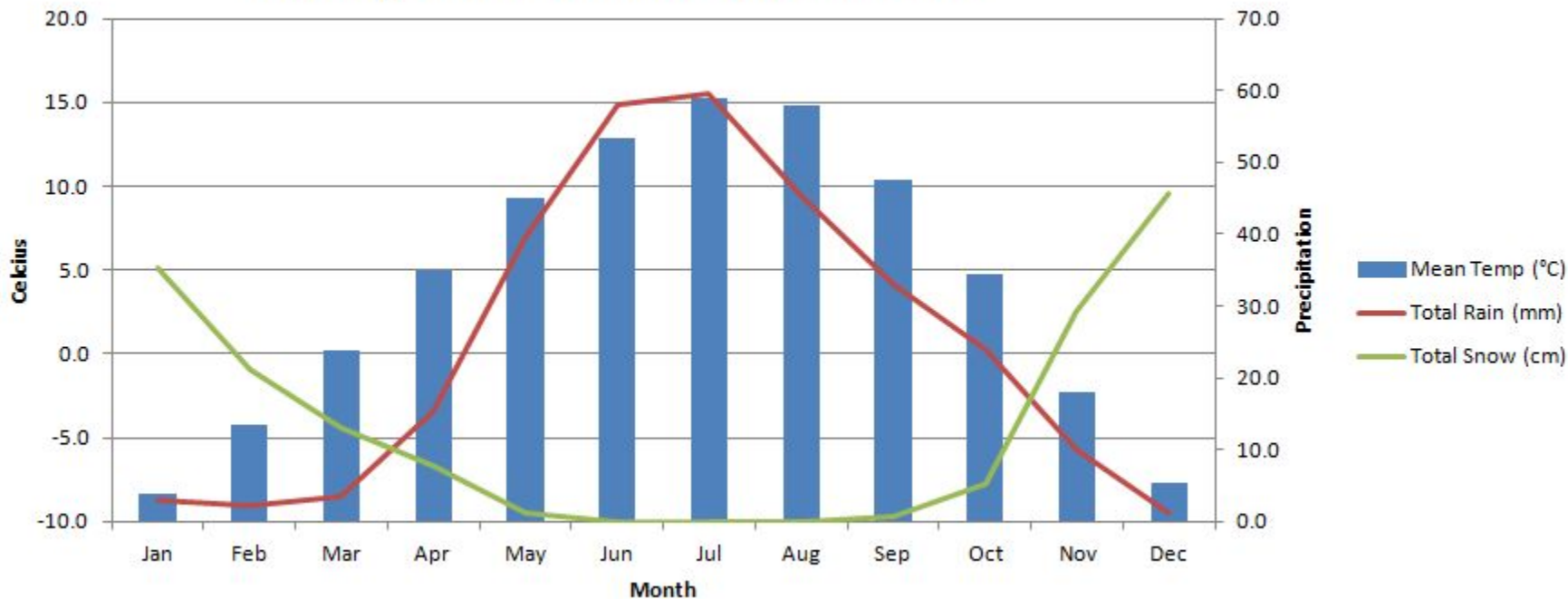
Bars for temperature

Line graph for rain and snow.

Horizontal axis crosses at -10.0 Celcius, moving monthly labels to bottom of graph.

Include Legend, title of chart, axes titles.

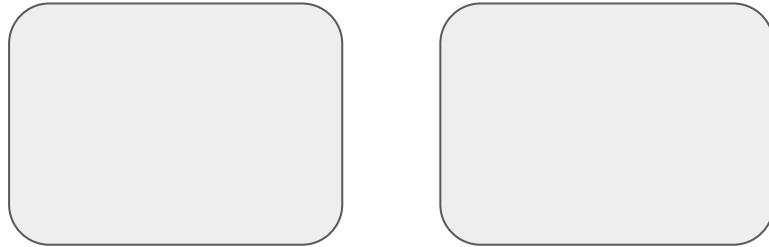
Monthly Climate Data for 100 Mile House



TIPS

Use **freeze panes** to lock a row and/or column for scrolling a large spreadsheet.

For viewing spreadsheets, use a large external display screen 24"+ or two display monitor screens.



How to print your sheet?

Place table in new worksheet.

Configure page setup - go to print preview, choose color or black/white, paper size.

Excel will display the print borders on the spreadsheet.

Adjust your rows & columns formatting for fitting report on printed page.

Print in landscape mode for wider tables.

Saving documents

Save as excel doc xlsx. Cross platformed, opens on Mac or PC and older versions of Excel (2007+).

XLS is the legacy document format.

Protect? Spreadsheet can be locked from editing cells and document password protected.

Adding to Presentations or Report

Copy table or or charts and paste directly into Powerpoint or Word.

For adding to other documents, use screen capture and save as a jpeg image.

Windows keyboard command **ctrl - print screen** (PrtSc)

Mac **command - shift 3 or 4**

Export as PDF for merging into a pdf document.

Copy as image.

1. Select rows and columns in Excel.
2. Press down arrow below Paste button.
3. Select Copy as Picture.
4. Paste image into your document.

Importing Excel Data

Excel → MS Access

Excel → other software programs. Export as .CSV.

Before exporting, move data into new worksheet. For exporting text, wrap in quotations.

How to find us?

MCML 264, second floor. Come on in and you will see a large fish aquarium.

Open Monday to Friday 9 to 5 PM

Weekends closed.

Email: it@landfood.ubc.ca creates a ticket requesting help.

Phone: 604-822-1936