STA 477 - JMP HANDOUT

JMP using https://apps.nau.edu/, Remote Desktop Connection, or in Adel Math Room 222

NOTE: When using https://apps.nau.edu/, consider various options. e.g., open 'JMP Pro 15' or open 'vDesk – Full Desktop' and then find 'JMP Pro 15'. To use the Remote Desktop Service from off campus you must first setup VPN. See https://nau.edu/its/remote-desktop/ for details.

Once in JMP, the menu at the top of the screen will contain items such as:

File Edit Tables Rows Cols DOE Analyze Graph Tools View Window Help

To input a new data set, click on **File > New > Data Table** at top of screen to open a spreadsheet for data entry purposes)

Variables are entered as columns

Double click on say, "Column 1", to open Column Info window and type desired name. Modeling type must be **C**ontinuous, **O**rdinal, or **N**ominal.

Enter the data in the appropriate column

Create new variables by double clicking just to the right of the last existing column (type in desired name at top of column as discussed earlier)

Pictorial and Numerical Summary of Univariate Data

Analyze

Distribution

Double click on column name, then type OK (look at results)

Click on red down arrow next to **Distributions** then **Stack** get horizontal layout

NOTE: Diamond in boxplot identifies the sample mean and marks the 95% CI for the population mean. The interval marked in red identifies the shortest 50% of the data.

Explore various options by clicking on red down arrow next to variable name

Time Series

Analyze
Specialized Modeling
Time Series
Select a column (a continuous variables) and place it in the 'Y, Time Series' box. Click on OK button. Click on red down arrow next to 'Time Series …" to examine additional features

Simple Linear Regression

Enter independent variable (X) and dependent variable (Y) as columns of data

Analyze
Fit Y by X (X = independent variable or Factor, Y = dependent variable or response). Click on OK button after selecting X and Y variables.
Click on red down arrow next to "Bivariate Fit of …" and select **Fit line**

Once fitted regression model is chosen, use new red down arrow next to "Linear Fit" to select **Save Residuals**, **Save Predicteds**, and/or **Plot Residuals**

Transforming Data

After creating a new column in data table, double click top of the new column just above variable name to open the Column Info window
Change column name (if needed), click on black down arrow next to **Column Properties** and select **Formula**, then **Edit Formula**
Example: Click Transcendental (then try Log)
Click on name of variable you wish to transform
Click OK and close windows to get back to the spreadsheet to see results

Other Comments

Use **Help** (in JMP) from menu at top of screen for additional information.
JMP output may be copied and then pasted into MS Word. This will be useful if you want to incorporate the statistical analyses into a document with a narrative.
Save *.jmp files and other files on your own drive.