# STAT2201: Analysis of Engineering and Scientific Data

# **COMPUTER AND MINITAB INSTRUCTIONS**

The following instructions provide a general guide to the computer labs, computer etiquette and how to use the menus in **MINITAB**. Bring this sheet to all tutorials.

### **General Lab Information and Computer Etiquette:**

All the computer labs are heavily booked. This means that you have guaranteed access when your tutorial is on. At other times, you should check that the lab is free. If not and the staff member running the class for whom the booking has been made gives permission for you to be in the lab, then ensure you do not disturb the class in any way.

All Science Faculty computer labs contain MAC's, not PC's, but give you a choice between using the computer as a MAC or as a PC (using Windows 7). You need to use it in PC mode. If the computer is in MAC mode, **Restart** it. After doing so, or if it already has the two options of MAC and Windows 7 available, choose the Windows 7 option. You then login in using your UQ username and password.

Make sure you logout when you finish (see below)!!

Note: Open the Apple Keyboard icon to see the keyboard layout for Windows.

### **Working Directory:**

When you log in, you should be able to access your University provided personal user space in the **H**: directory. If this is not visible then double click on the icon **MAP STUDENT DRIVE** on the computer desktop. This will map your University provided personal user space. This means any files you save here can be accessed via the **MyFiles** link at **https://my.uq.edu.au**.

**Note:** All the labs are monitored, so don't do anything which is against the University's Information Technology Rules, Regulations and Policies!!

### Accessing MINITAB and Firefox:

To complete your tutorial work, you should use the web browser Firefox. You will need to use **MINITAB** to carry out your data analysis.

To access **Mozilla Firefox**, click on the shortcut icon on the quick start toolbar on the bottom left or go to **Start**, **All Programs**, **Mozilla** and click on **Mozilla Firefox**. The course assessment is at the URL:

https://courses.smp.uq.edu.au/functions/access.php?/STAT2201/2016a/Assessment/ (this is case sensitive).

To access MINITAB, go to Start, All Programs, Minitab and click on Minitab 17.

To log out, either click the **Logout** button (the best option if there is a STAT2201 class coming after you!) or click **Restart** at the end of your session.

### NOTES:

(a) When completing your report during your tutorial, <u>**DO NOT**</u> copy and paste material from a word processor application (such as MICROSOFT WORD). If you do, you will copy a very large number of hidden characters into your report which can cause <u>terminal</u> problems for your report (that is, you will destroy your report!!).

(b) Take care using the backspace key when typing up your report during the tutorial. If

you are not in a text box, then it can cause the browser to return to a previous web page and your material will be lost – make sure you save your report progressively.

## **Brief Guide to MINITAB:**

ENTERING Minitab: Open MINITAB 16 as per the above. Wait!!

In MINITAB, there are SESSION and WORKSHEET 1 windows opened, and a PROJECT MANAGER window iconised (under WORKSHEET 1). You can open the PROJECT MANAGER window by going to the menu Window and choosing it from the list.

In the SESSION window, you can type commands and see non-graphical output.

WORKSHEET windows are used to see data and to enter new data or edit existing data.

The **PROJECT MANAGER** window can be used to see which variables you have, a history of the commands you have used and other useful information. About half way through your first session, have a look to see what is there.

You can proceed with MINITAB commands using the MENUS (or by typing them in the MINITAB SESSION window). The main MENUS are:

### File Edit Data Calc Stat Graph Editor Tools Window Help Assistant

[If the prompt is not visible in the session window, then you need to do the following to enable you to write commands in the session window: click in the session window, then go to the **Editor** menu and click on **Enable Command Language**.]

To enter columns of data into the appropriate dialogue windows, the best option is to double click on the column name in the window above the select button.

In your tutorials, follow the instructions on the Tutorial Objectives and Instructions page (accessed from the pages for each tutorial) to obtain the output for the tutorial. Make sure your read these and <u>do</u> the preliminary work prior to your tutorial.

If you need more information about a command, ask the tutor or look in the HELP menu in MINITAB (it is similar to the HELP menus of other windows software) or in the tutorial HELP window (it has abbreviated versions of the help given in MINITAB).

Data can be stored as constants (denoted by the letter  $\mathbf{k}$  followed by a number), columns (denoted by the letter  $\mathbf{c}$  followed by a number) and matrices (denoted by the letter  $\mathbf{m}$  followed by a number). You will need to copy your data from a table on a web page into columns in the worksheet as per the tutorial instructions. Note that each student has their own dataset.

#### **RETRIEVING DATA FROM A SAVED MINITAB WORKSHEET:**

If you save data in a **MINITAB** worksheet called **name.mtw** (where **name** is the name under which the worksheet has been saved), then you can retrieve the worksheet as follows:

- Click on the File menu, then click on Open Worksheet.
- Go to folder in which the worksheet resides.
- Double click on name.mtw in large box below File Name; then click on Proceed.

When you retrieve a worksheet, have a look in the **WORKSHEET** window (now entitled **name.mtw**) to see the data. You can then proceed with your analysis of the data.

#### **LEAVING Minitab:**

• Click on the File menu, then click on Exit and then on No.

To LOGOUT: Logout as above.