**6304 Module 1 Lecture**

**R Command File**

**install.packages(ʺrioʺ)**

**install.packages(ʺmomentsʺ)**

**library(rio)**

**library(moments)**

**grades=import(ʺ6304 Module 1 Data Set.xlsxʺ,sheet=ʺscoresʺ)**

**colnames(grades)=tolower(make.names(colnames(grades)))**

**attach(grades)**

**# Descriptive Statistics**

**mean(total.points)**

**mean(grades$total.points)**

**median(total.points)**

**sd(total.points)**

**summary(total.points)**

**quantile(total.points,probs=seq(0,1,.25))**

**min(total.points)**

**max(total.points)**

**# Structure of the Data Frame**

**str(grades)**

**# Fundamental Graphics**

**hist(total.points)**

**hist(total.points,col="red",main="My Little Red Histogram")**

**plot(density(total.points))**

**boxplot(total.points,col="red",main="Total Points Boxplot")**

**skewness(total.points)**

**kurtosis(total.points)**

**# Random Sample from Data**

**my.sample.grades=grades[sample(1:nrow(grades),10),]**

**set.seed(99)**

**my.sample.grades=grades[sample(1:nrow(grades),10),]**

**# Subsetting Data**

**my.subset.grades=subset(grades,total.points<250)**

**my.subset.grades=subset(grades,total.points==75)**