Name:_____   Student/Lobo ID: _____

Course/Sec: _____   TA Name: _____

Advanced Microsoft Excel© for Research
Essential Academic Skill Enhancement (EASE) workshop series

This workshop covers some basic descriptive statistical methods that can be used through the Data Analysis ToolPak Add-On of PC based Microsoft (MS) Excel 2013©. Most of the information will still be relevant for other versions of or platforms of Excel©, but the format may be slightly different. MS Excel© is an extremely powerful software package for introductory data entry, manipulation, and creation of figures or graphs.

This workshop moves beyond the Basic MS Excel workshop with an emphasis on descriptive statistical methods that can be executed using MS Excel. This workshop will introduce the Data Analysis tab and the Analysis ToolPak add in and will briefly go over how to create usable data tables, conduct basic statistical analyses, and how to export these data in table or graph form.

*   Introduction to Analysis ToolPak add-in
*   Variability: Range/Variance/Standard Deviation
*   Probability distributions: *t*-test/ANOVA/Regression

Please download the data set:
http://goo.gl/lcha0y (case sensitive)

Note: This workshop is by no means all inclusive and we encourage you to explore the additional options on your own.

Course Assignment (use the back of this sheet if additional space is required):

1. Match the Hypothesis: write the appropriate type of test AND explain WHY you selected that answer.
   a. Men and women are not, on average, the same height. t-test because categorical (gender) + numerical (height) and 2 groups.
   b. People from New Mexico, Texas and Nevada are not, on average, the same height. ANOVA because categorical (state) + numerical (height) and three groups.
   c. The temperature of the earth decreases with latitude. Regression because both variables (temperature and latitude) are numerical.

2. Regression:
   a. What is the R^2? 0.648
   b. Is the regression significant? 2.97E-4; Yes

3. What does this tell you about the relationship between house selling price and size? The size of the house affects the price at which the house sells.

4. T-test:
   a. What is the p-value? 4.76E-4
   b. Are the means of the two groups significantly different? Yes

5. ANOVA:
   a. What is the p-value? 3.36E-6
   b. Are the ANY the groups significantly different? Yes
   c. Are ALL the groups significantly different? How can you tell? Not enough information, need to do a pairwise t-tests