

Please Begin working on the 9.02 project by **Monday, April 10th, 2017**.

9.02 (first draft) is **due Tuesday, April 18th 11:59 pm**.

Even if you don't plan on submitting a second/final draft of 9.02, this is still the deadline.

Second/Final Drafts (also called revisions) for 9.02 are **due no later than Monday, April 24th, at 11:59 pm**.  
Submitting revisions are completely optional and at the decision of the student.

### **Grading Rubric:**

The owner of the company wants to determine whether the cost of a certain computer training is worthwhile. Often, employees are not able to effectively judge their own computer skills. So the owner wants to test the employees. It would be too costly and time consuming to test all 177 employees, therefore, only a sample of the employees will be tested.

**Step 1:** Download the spreadsheet of data. Yes, again. If you deleted some of the data when you completed the 9.01 project, you will need to resave the spreadsheet (with all the data) again.

#### **Question 1:**

**Step 2:** Using what you know about sampling methods (lesson 5.03, p.512 in the textbook), determine an unbiased sampling method you will use to create an unbiased group of 25 to 30 employees from a list of 177 employees. State which sampling method from p. 512 you will use to collect your sample. Identify why you selected that method and why it will give an unbiased sample representing all 177 employees.

**State which sampling method was used. 2 points**

**Why did you select that method. 3 points**

**Why will this method represent an unbiased sample. 6 points**

**Step 3:** Use your sampling method to identify which employees will represent your sample group.

**List of which employees are representing the sample group. 4 points**

**Step 4:** In the spreadsheet, delete the rows for employees not selected for the sample group.

#### **Question 2:**

**Step 5:** The spreadsheet contains data from the computer training program for the employees you have selected for your data group. To reveal this data, highlight columns C and E. Then right-click somewhere in those highlighted columns. Select the “unhide” option. It will reveal column D which has the computer training program data hidden. Highlight column D. Click the cell fill color icon (it looks like a can of paint that is being tipped over), select a light color that will reveal the data (the data has black font).

**Step 6:** List the computer skills score beside each employee in the sample group (those listed in step 3).

**List of scores for employees representing the sample group. 5 points**

**Step 7:** Possible Computer skills scores range from 1 point minimum to 20 points maximum. Create a frequency table documenting these scores (lesson 5.07). **The frequency table must not be created using the spreadsheet software and should be created by hand in a table.** The table may be manually created by inserting a table into the Word document, or it may be created by hand, if desired.

**Frequency Table: 10 points**

**Checklist: Table columns labeled, Class Size, # of Class Intervals, Frequencies**

**Step 8:** Using the frequency table in step 7, create a histogram of the data. Remember to label the axis with “labels” and “units”. The histogram may not be created using the spreadsheet software and should be created by hand. You may insert a table into the Word document and be used as grid paper (as was used in the Unit 5 Test Part 2), or it may be created by hand if desired (be sure to use a ruler for straight lines and accurate bar heights).

Histogram: 10 points

Checklist: Axes labeled, Axes units, Bar size, Bar position, Bar heights

**Step 9:** Analyze your histogram. **Write an analysis to the owner of the company instructing him or her how to interpret the histogram. In your analysis, identify the shape of the histogram and the implications of the shape in the interpretation of the data.** Use professional grammar, correct punctuation, spelling and capitalization. Consider your "audience". The owner hired you to do this analysis. He or she is your boss, and this should be a professional presentation.

This analysis is worth 10 points.

Content = 8 points.

Grammar, spelling, punctuation, capitalization, professionalism and "voice" = 2 points.