**MAT1372 Projects Probability and Statistics**

**Professor Han Spring 2014**

**Project #6 (Final Project)**

**Maximum points on this project: 60 points**

Submit **one** EXCEL file: FirstName LastName-final project-MAT1372-Sp2014

Submit each draft by the due date to: shan@citytech.cuny.edu

**Draft #1 (items #1, 2, 3, 4a) is due Thursday April 24**

**Draft #2 (item #4b and the draft for the research paper) is due Friday May 2**

**Power Point presentation is on Thursday, May 8**

**Final draft (Excel file, research paper, Power Point presentation) is due Tuesday, May 20**

1. Form a team of 2-3 people to work on this project.
2. Identify the problem (or research question).
3. Use internet resources to find the data.
4. Perform statistical analysis. You must include the following:
5. Compare two sets of data to find the correlation coefficients, linear regression line, and scatter plot graph.
6. Perform hypothesis testing on the data by formulating a hypothesis, testing the hypothesis using different p-values, and determining if you should accept or reject the hypothesis.

**Research Paper**

The best research paper (chosen by the class) will earn 10 extra points. The second best paper (chosen by the class) will earn 5 extra points. To prepare the research paper, you must include the following sections:

1. **Introduction**. Provide background information and state the research question.
2. **Methodology**. Describe the method you use in doing this research, including where you get the data, and how you perform statistical analysis.
3. **Results**. Include all tables, charts, graphs, and numbers in the result section.
4. **Discussion**. Provide a discussion or interpretation of the results, including if you accept or reject the hypothesis. Discuss if the results answer the research question. If necessary, provide alternative interpretation.
5. **Conclusion**. A simple conclusion will do.
6. **Reference**. You must list all references used, including internet resources.

**Power Point Presentation**

The Power Point presentation will be graded by your classmates. To prepare the Power Point presentation, you must include the following information:

1. Team member names and project title
2. Delegation of responsibilities, how the task is shared among team members
3. Research question
4. Background information
5. Methodology
6. Results
7. Discussion
8. Reference