

# Project Handout

## Deadlines.

Written Project Abstract: February 26th, 2018, electronic submission only.

Written Project: April 25th, 2018, electronic submission only.

## Guidelines.

- ① Each project team will consist of 3-4 students assigned by the instructor.
- ② The project must address a real-world problem with real data relevant to the course materials or a theoretical problem including simulations.
- ③ You must include the complete reference to your data set in your report. Also, you will need to supply, in a separate file, the data set and the code you used to produce the report.
- ④ In selecting your topic choose something that interests you, and try to have a main, answerable question in mind.
- ⑤ The goal of the project is to show that you know the material discussed in this course and beyond. In other words, a **rigorous** study covering the materials discussed in the course is more important than showing that the test result is statistically significant.
- ⑥ The page limit of the final report is 15 (8 1/2 by 11), including figures and computer output, if any.
- ⑦ Things to avoid:
  - (a) misuse of methods or models,
  - (b) mis-interpret the results,
  - (c) overlook model inadequacy,
  - (d) messy or sloppy report.
- ⑧ Guidelines for grading and evaluation of the project work are attached with this document.

**Submission.** Submit your report along with the data via email by the due date. Submit the group evaluations individually.

**Abstract.** The project abstract submitted early in the semester shall specify the followings:

- ① The student names in the team;

- ② A brief description of the data and the source where you acquired the data;
- ③ A brief description of the questions that you would like to answer; and
- ④ An initial list of project tasks and the students in the team assigned to each task.

**Report.** Your project report will need to be a thorough but concise report of your entire investigation and it should include:

- ① Summary (goals and major findings);
- ② Table of contents;
- ③ Description of the reason for your study;
- ④ Statement of how you a priori expected the study to turn out;
- ⑤ Explain the raw data;
- ⑥ Appropriate statistical analyses of the data (use graphs as well as numerical summaries);
- ⑦ Statement of the subject matter implications of your study;
- ⑧ Discussion of further questions raised by your study (that might be investigated in the future).

The report shall not contain software output and code. You may attach an appendix with software output and code. Include only relevant figures in the report. Please avoid grammar errors and typos. Have another student from a different team help you revise it and edit it.

There will be no extensions or make-ups. Students who are unable to turn in their project, take the exam, or do their presentation must consult with the instructor in advance, if possible.

**Grading.** The reports will be graded by students in this class. Each team will be in charge of reading and grading two or more reports. The report grade will be a weighted average between students' grade and instructor's grade.