# Project Handout

Deadlines.

Project Abstract: September 24, 2023, canvas submission only.
Final Project: December 8, 2023, canvas submission only.

Some ground rules.

① Each project team will consist of about 3-4 students assigned by the instructor early in the semester.

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 is interesting to you and fellow students, has relevance to practice and it is complex enough to make it for course project.

⑤ The goal of the project is to show that you know the material discussed in this course but also you should consider and test other modeling techniques and approaches to go beyond the course material. Use this opportunity to learn more!

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.

⑨ There will be no extensions or make-ups allowed. Students who are unable to turn in their project deliverables must consult with the instructor in advance.

Submission. Submit your report along with the data by the due date.

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.

Grading. The reports will be graded by students in this class. Each team will be in charge of reading and grading three to four reports. The students will provide feedback as well as points for each rubric in the grading rubric template. The final report grade will be given by the instructor team based on the peers feedback and their own feedback. Make sure you provide appropriate and constructive feedback. Please comment on both strengths and weaknesses of each report in your feedback.

Conclusion. Think of the project as a consultancy type of work that you will need to perform and report on at your job. Your intended audience is somewhat knowledgeable about Time Series, but likely cares less about the methods used than your findings, particularly in the context of the topic. You will need to pay attention to the report writing and how you present your work, including figures & tables and the text itself. The report should

not contain software output and code. (You will submit the R code with your project.) Include only relevant figures and tables in the report; make sure to label them appropriately and include references to any figures in the text. Please avoid grammatical errors and typos. Have another student from a different team help you revise and edit your report.

**Good luck and have fun!**