

Independent Project Guidelines

Once you have your topic approved for the independent research portion of your capstone project, you may begin working on it.

Your research needs to:

- investigate a statistical topic in some depth
- reference pertinent articles in the literature (a least 3)
- collect data and
- analyze and interpret the results using the methodology that is the subject of your topic.

You may write your independent research topic as either part of the consulting project (if it is related to it) or as a stand-alone project. Your independent research and analysis coupled with your consulting project will constitute your capstone project. You should write *at least* 10 pages total, 12 pt. font, double-spaced, 1" margins. Follow the writing guidelines presented in class including APA format.

I expect the independent research paper to have several sections, including

Introduction and Background:

- What motivated you to study this method? Why are you interested?
- Focus on the reason this technique was developed
- What kinds of statistical problems is it good for analyzing?
- Review and discuss at least three statistical papers that define the technique, i.e., literature review.

Methods and Materials:

- Brief description of the data
- How is it being collected?
- What variables are being measured and analyzed?
- Is there anything special about the data such as autocorrelation?
- Brief description of the technique including statistical model
- Illustrate the technique using your data

Results:

- Summary and interpretation of your analysis
- R code (or any other software you use) may be placed in the Appendix. Use `Courier` font to present R results to maintain R formatting.

Discussion and Summary:

- What do you think of the technique?
- Is it a useful methodology?
- Relate your results to other closely related techniques currently being used
- Discuss potential issues and further research

References

- Use APA formatting

Appendix

Style:

The writing style for the independent project is different than for the consulting project. For the independent, project you can assume that the reader has a working knowledge of statistics.

Structure:

The structure will be dependent on the topic chosen, but no matter what the topic is, I do expect there to be several sections delineated by titles. I also expect a reference/bibliography section for each paper and those references properly cited in your paper.

I will be grading on both understanding of statistical concepts and clarity of writing. In particular, please avoid using upper-level statistical terms without explaining them.

For all concepts, I do expect you to work alone and do original work. Your project needs to represent your work and not that of someone else. I do have access to paper-writing services on the web and will file an academic misconduct report for student who uses one of these services.

Due dates:

Your draft is due Wednesday, November 26th in Moodle. Your literature search and analysis should be done, and some attempt should've been made to write it up. Please have it to me by the 26th so I can look it over and supply feedback.

The final draft is due Wednesday, December 10th in Moodle.