	Excellent (3)	Competent (2)	Needs Work (1)
Reproducible	All graphs, code, and answers are created from text files. Answers are never hardcoded but instead are inserted using inline R code. sessionInfo() is provided at the end of the document as well as an automatically generated references section with properly formatted citations when appropriate.	All graphs, code, and answers are created from text files. Answers are hardcoded. No sessionInfo() is provided at the end of the document. References are present but not cited properly or automatically generated.	Document uses copy and paste with graphs or code. Answers are hardcoded and references when approapriate are hardcoded.
Statistical Understanding	Answers to questions demonstrate clear statistical understanding by comparing theoretical answers to simulated answers. When hypotheses are tested, classical methods are compared and contrasted to randomization methods. When confidence intervals are constructed, classical approaches are compared and contrasted with bootstrap procedures. The scope of inferential conclusions made is appropriate for the sampling method.	Theoretical and simulated answers are computed but no discussion is present comparing and contrasting the results. When hypotheses are tested, results for classical and randomization methods are presented but are not compared and contrasted. When confidence intervals are constructed, classical and bootstrap approaches are computed but the results are not compared and contrasted. The scope of inferential conslcusions made is appropriate for the sampling method.	Theoretical and simulated answers are not computed correctly. No comparison between classical and randomization approaches is present when testing hypotheses. When confidence intervals are constructed, there is no comparison between classical and bootstrap confidence intervals .
Graphics	Graphs for categorical data (barplot, mosaic plot, etc.) have appropriately labeled axes and titles. Graphs for quantitative data (histograms, density plots, violin plots, etc.) have appropriately labeled axes and titles. Multivariate graphs use appropriate legends and labels. Computer variable names are replaced with descriptive variable names.	Appropriate graphs for the type of data are used. Not all axes have appropriate labels or computer variable names are used in the graphs.	Inappropriate graphs are used for the type of data. Axes are not labeled and computer variable names appear in the graphs.
Coding	Code (primarily R) produces correct answers. Non-standard or complex functions are commented. Code is formatted using a consistent standard.		Code does not produce correct answers. Code has no comments and is not formatted.

Some erros of grammar and usage; errors do not interfere

with meaning. Language style and word choice are for the

most part effective and appropriate for the assignment.

Major errors of grammar and usage make meaning

and/or inappropriate.

unclear. Language style and word choice are ineffective

Few error of grammar and usage; any minor errors do not

are appropriate for the assignment.

Clarity

interfere with meaning. Language style and word choice are

highly effective and enhance meaning. Style and word choice