

Final Project Grading Rubric (95 points possible)

Category	Excellent	Good	Adequate	Unsatisfactory
Analysis (45 points)	<ul style="list-style-type: none"> Outstanding statistical analysis in all aspects (clarity, completeness, appropriateness, accuracy, visualizations, etc.). Analysis demonstrates expert-level understanding of methodology employed. Analysis considers all relevant aspects of methodology employed (e.g. model diagnostics/assumptions, variable importance, predictive accuracy, etc.). Well-reasoned and principled justification are provided for all decisions made during the analytical process (e.g. data selection, data processing, methodology selection, tuning, etc.). Analyses are well-suited to address the research question of interest and conclusions of analytical results are clearly expressed in terms of the research question of interest. If comparisons are made between methods, significant efforts were made to ensure a fair comparison. There are no flaws in the statistical analyses. 	<ul style="list-style-type: none"> Outstanding statistical analysis in all aspects (see excellent) except one. Analysis demonstrates advanced-level understanding of methodology employed. Analysis considers all relevant aspects of methodology employed (see excellent) except one. Well-reasoned and principled justification are provided for all decisions made during the analytical process (see excellent) except one. Analyses are well-suited to address the research question of interest and conclusions of analytical results are clearly expressed in terms of the research question of interest. If comparisons are made between methods, sufficient efforts were made to ensure a fair comparison. There is no more than one flaw in the statistical analyses. 	<ul style="list-style-type: none"> Great statistical analysis in most aspects (see excellent). Analysis demonstrates intermediate-level understanding of methodology employed. Analysis considers most relevant aspects of methodology employed (see excellent) but lacking in detail or missing for major aspect. Some justification are provided for decisions made during the analytical process (see excellent) but lacking in detail or missing for major aspect. Analyses address some components of the research question of interest and conclusions of analytical results are somewhat connected to the research question of interest. If comparisons are made between methods, some efforts were made to ensure a fair comparison. There are some flaws in the statistical analyses. 	<ul style="list-style-type: none"> Statistical analysis deficient in most aspects (see excellent). Analysis demonstrates novice-level understanding of methodology employed. Analysis considers some relevant aspects of methodology employed (see excellent) but lacking in detail and/or missing most important aspects. Little to no justification are provided for decisions made during the analytical process (see excellent). Analyses do not adequately address the research question of interest and conclusions of analytical results have little to no connection to the research question of interest. If comparisons are made between methods, little to no efforts were made to ensure a fair comparison. There are numerous flaws in the statistical analyses.
Writing (35 points)	<ul style="list-style-type: none"> Clear and detailed communication of research question of interest. Provides extensive and compelling commentary on the data selected to address the research question of interest (e.g. data selection, data processing, data limitations, etc.). Provides extensive and compelling commentary on all components of the data analysis (e.g. methodology selection, model assumptions, modeling results, limitations on the analysis, etc.). If comparisons are made between methods, clearly articulates the advantages and disadvantages of each method, comparative performance on 	<ul style="list-style-type: none"> Clear communication of research question of interest. Missing some minor details. Provides great commentary on the data selected to address the research question of interest (see excellent). Commentary not as extensive as needed or lacking clarity in one area. Provides great commentary on most components of the data analysis (see excellent). Commentary not as extensive as needed or lacking clarity in one area. If comparisons are made between methods, largely articulates the 	<ul style="list-style-type: none"> Clear communication of research question of interest. Lacking details. Provides some commentary on the data selected to address the research question of interest (see excellent). Missing important details. Provides some commentary on most components of the data analysis (see excellent). Missing important details. If comparisons are made between methods, somewhat articulates the advantages and disadvantages of each method, comparative performance on the 	<ul style="list-style-type: none"> Little to no communication of research question of interest. Lacking major details. Provides little to no commentary on the data selected to address the research question of interest (see excellent). Missing major details. Provides little to no commentary on components of the data analysis (see excellent). Missing major details. If comparisons are made between methods, does not sufficiently articulate the

	<p>the data selected, and limitations of the comparison.</p> <ul style="list-style-type: none"> • Provides extensive and compelling commentary on the interpretation of the analytical results within the context of the research question of interest. • Provides numerous clear, reasonable, and actionable next steps for refining and improving the analysis. 	<p>advantages and disadvantages of each method, comparative performance on the data selected, and limitations of the comparison. Missing minor details.</p> <ul style="list-style-type: none"> • Provides great commentary on the interpretation of the analytical results within the context of the research question of interest. Commentary not as extensive as needed or lacking clarity in one area. • Provides some clear, reasonable, and actionable next steps for refining and improving the analysis. 	<p>data selected, and limitations of the comparison. Missing important details.</p> <ul style="list-style-type: none"> • Provides some commentary on the interpretation of the analytical results within the context of the research question of interest. Missing important details. • Provides some next steps for refining and improving the analysis. Lacking clarity and detail. 	<p>advantages and disadvantages of each method, comparative performance on the data selected, and limitations of the comparison.</p> <ul style="list-style-type: none"> • Provides little to no commentary on the interpretation of the analytical results within the context of the research question of interest. Missing major details. • Provides little to no next steps for refining and improving the analysis.
<p>Creativity (15 points)</p>	<ul style="list-style-type: none"> • Highly innovative analysis in two or more of the following areas: <ul style="list-style-type: none"> a. Incorporated multiple approaches covered in class to creatively address research question of interest. Provided thorough comparative analysis. b. Researched new approaches not covered in class and incorporated into analysis to creatively address research question of interest. c. Demonstrated a deep, expert knowledge of a particular approach and perfectly tailored the approach to creatively address research question of interest. 	<ul style="list-style-type: none"> • Highly innovative analysis in one or more of the areas described in the excellent category. 	<ul style="list-style-type: none"> • Appropriate analysis. Straightforward application of one approach covered in class. 	<ul style="list-style-type: none"> • Analysis inappropriate or overly simplistic. Demonstrates little to no understanding of approach.