

Grading Rubric for the Final Project

- 1) **Abstract:** A summary of up to 100 words stating the problem to be solved within context, list of outcomes and predictors, statistical methods used to answer the question to be answered, statement of conclusions within context, limitations, and next steps. **5 points**
- 2) **Statement of the Problem:** Description of the question to be answered within context. **5 points**
- 3) **Exploratory data analysis:** frequency tables, scatterplots, histograms, table of means, sample size and standard deviation for numerical predictors, correlation matrix of numerical variables) **Do not include more than one plot or table per page. If there is enough space, write the description next to the plot or table, if not do it in the next slide. 15 points**
- 4) A table listing the outcome variables, predictors, and describing how they were measured, for categorical variables list the levels. If you changed a numerical variable to a factor, explain how you did it, If you pooled some categories explain how you did it, for instance if you combined strongly agree and agree, make it clear, if need be change the order of a factor so it makes sense. **(10 points)**
- 5) Summarizing the results of the relevant model in the form of a clear table. Do not cut and paste R outputs, Report your results in the form of clear tables. **10 points**

Example for multiple linear regression

Table for predicting Y from X1, X2, and X3

	Coefficient	Standard error	t	p
constant				
X1				
X2				
X2				

Adjusted R-squared for multiple regression

Example for multiple logistic or multinomial regression

	Odds ratio	Z	P	95% confidence interval for odds ratio
constant				
X1				
X2				
X2				

For logistic regression plot of odds ratio would be helpful (Y axis showing the odds, with 95% confidence interval for the predictors). Any time the interval includes one, that implies the odds are the same.

- 6) Plot of interaction effect **(5 points)**
- 7) Interpretation of partial slopes, interaction effect, and adjust R-squared within context **(20 points)**
- 8) Checking the relevant assumptions and indicating whether they are met **(15 points)**
- 9) Checking for bad leverage - plots are needed **(5 points)**
- 10) Deleting bad leverage (if there are any) and running the new model **(5 points)**
- 11) Limitations and recommendations **(5 points)**