Project 2 MATLAB Code Rubric (35 points total)

Group #

Section (Total Points)	Exemplary	Average	Below Average	Grade
Documentation (3)	(3) Every variable is defined with appropriate units. Sections of the code are clearly marked and the code is organized, aligned with proper header. Explanations are provided in the code that define and explain areas for data validations, calculations, and output.	(2) Missing a few variables and/or units. There is organization but additional notes would be helpful at times to clarify what is going on in the code.	(1) Minimal comments. Name and sections but missing several variables and inconsistent definition of units. Hard to follow code with missing explanation.	
Algorithm Logic (7)	(7) The logic of the code works correct. It is flexible to different scenarios and progresses correctly through the problem at had. Takes into account all requests from the problem statement.	(5) The logic works for most cases but fails to consider one specialize cases **OR** missing one consideration that was requested.	(3) The logic only works for one case. The algorithm is unclear and therefore does not make sense given the problem.	
Coding Computations and Validation Checks (12)	(12) Code is a correct application of the algorithm with no warnings or syntax errors. All checks are consider for the inputs, calculations, and outputs and the function is properly written based on the instructions and applied.	(8) Code at one place does not correctly apply the algorithm or address the problem correctly. **OR** the function is not used appropriately (too much or too little in the functions)	(4) In some cases, the code fails (error). The function does not have a clear purpose or use in the code NOTE: If the code does not run, this category is an automatic zero.	
Output Command Window and Export File (8)	(8) Command Window output is well formatted and only includes information that should be showing. Spacing is appropriate between inputs and different outputs. All figures have different figure numbers, appropriate labels, formatting. There is no unnecessary repetition in the output. If included, export file has only the necessary information and can be easily understood.	(6) Only necessary information is shown but formatting could be cleaner and easier to follow. There are a few places where spacing should have been applied. Figures are easy to understand but might be missing formatting requirements in a few places.	(3) If any unnecessary information is shown to the command window, it is automatically in this category. Redundant output with figures not properly formatted. NOTE: If results are not shown, automatic zero.	
Efficiency and Quality Coding (5)	(5) The lines of code are not repeated and variables are only used for clear reasons (no unnecessary variables). Housekeeping commands are used and functions are used to improve the quality of the code (not complicate it).	(3) There may be one or two places where the code repeats **OR** a few places where there are unnecessary lines of code. Variables make sense and all appropriate housekeeping commands are use.	(1) There is repetition in several places in the code in an attempt to make it longer than it should be. Missing housekeeping commands and variable names are confusing.	
Potential Extra Credit Opportunities (up to 5)	• Provide well formatted export (that would work on MAC or PC) that a user can view in another platform • Add additional data validation and/or controls beyond what is requested. They must make sense so use comments to justify their purpose. • Create a code that uses the controls to combine results from multiple runs into a single output, file, and/or figure • Include a second method (using different equations) to solve the problem and compare with other results (within the code) • New ways to present output that was not discussed in class.			
			Total Score	/ 45