**Program Code Grading Rubric**

|  |  |  |
| --- | --- | --- |
| Program Elements | | |
| Score | Possible |  |
|  | 12 | Includes 3 from list (8 pts for two, 4 for one) |
|  |  | for loop |
|  |  | while loop |
|  |  | at least one list, array, vector, or matrix |
|  |  | at least one *if* decisional structure with at least one *else* or *elseif/elif* |
|  |  |  |
|  | 5 | Nested structures (loops in loops, if’s in loops, loops in if’s) |
|  |  |  |
|  | 12 | Functions |
|  |  | 4 pts – at least one function outside of main program |
|  |  | 4 pts each for two functions within main program or outside main |
|  |  |  |
|  | 6 | Input and output (3 pts input, 3 pts output) |
|  |  |  |
|  | 6 | Error checking (3 pts for each error check) |
|  |  |  |
|  | 10 | Incorporated a new feature, library or module |
|  |  |  |
|  | 4 | Comments and Descriptive Variable names   - includes 1) academic integrity statement, 2) name and collaborators, 3) descriptions of key components of the program, 4) descriptive variable names |
|  |  |  |
|  | **55** | **Total** |

**Lines of Code**

-15 points deducted if 85-100 lines in MATLAB or 70-85 lines in Python

-30 points deducted if less than 85 lines in MATLAB or 70 lines in Python

**Running**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criteria** | **Fully Achieved**   **(25 pts)** | **Mostly Achieved**  **(20 pts)** | **Partially Achieved**  **(10 pts)** | **No Attempt**  **(0 pts)** |
| **Code Running** | Runs successfully with no errors. | code runs with error but has a work around to make it run or needs code changed during execution. | code runs partially but errors prevent from completing. | code will not run. |

**Report Grading Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criteria** | **Fully Achieved** | **Mostly Achieved** | **Partially Achieved** | **No Attempt** |
| **Title page** | Title page includes name of author, section-team number (e.g., LC1-00) and title of program.   **(2 pts)** |  | Includes name but missing name of program or section-team number or both.   **(1 pt)** | Missing name.   **(0 pts)** |
| **Introduction to the program** | Introduction is clear, includes motivation for the project and explains how it is connected to your interests, future career or major. It is free of spelling and/or grammar errors. **(4 pts)** | Introduction is mostly clear, but does not include connection to interests, future career or major or contains more than two spelling and/or grammar error.   **(2 pts)** | Introduction is not clear or contains more than 3 spelling and/or grammar errors. **(1 pt)** | No program Introduction is included.   **(0 pts)** |
| **Description of the inputs and outputs** | Clear overview describing what the programs do along with its inputs and outputs and is free of spelling and/or grammar errors. **(4 pt)** | Incomplete overview missing overall description, inputs or outputs or contains more than two spelling and/or grammar errors. **(2 pts)** | Minimal description that does not provide enough substance to understand the inputs and outputs or contains more than 3 spelling and/or grammar errors. **(1 pt)** | Overview is not included. **(0 pts)** |
| **Description of user-defined functions** | Clearly describes all user-defined functions.   **(4 pts)** | Clearly describes some user-defined functions but either does not include all functions or description is not clear for some functions or contains more than one spelling and/or grammar error. **(2 pts)** | Mentions that there are user defined functions but does not describe them or contains more than 3 spelling and/or grammar errors. **(1 pt)** | Does not mention user defined functions.   **(0 pts)** |
| **User Manual** | Clear and easy to understand user manual with concise descriptions and screen shots of the user interaction. **(6 pts)** | Incomplete or hard to understand manual that either lacks clear instructions and/or does not include screen shots or contains more than 3 spelling and/or grammar errors. **(4 pts)** | Started a user manual but is missing many required aspects. **(1 pt)** | No user manual is included.   **(0 pts)** |
| **Appendix** (with code files) | Complete code is included in appendix   AND   all code files are uploaded to Gradescope **(3 pts)** |  | Partial code or no code is included in appendix but all files are uploaded to Gradescope   OR   full code in appendix but all code files are not uploaded to Gradescope. **(1 pt)** | Code is not included in appendix  AND  no code files are submitted on Gradescope.   **(0 pts)** |
| **Submission** | Submitted in .pdf format to Gradescope. **(2 pts)** |  |  | Not submitted to Gradescope as a .pdf   **(0 pts)** |