# MSE Suggested Writing Rubric: Student Checklist

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| **Attribute** | **Description** | **Checklist** |
| **Content** | Topic is focused with a clear thesis, meets the description of the assignment, and integrates ideas with complexity. |  |
| **Organization and coherence** | Uses logical structure between sections and paragraphs with appropriate transitions. Information is tied together.  |  |
| **Argument and support** | Ideas are strongly supported with evidence. Demonstrates understanding of topics in the course. Concepts are integrated into writer’s insights.  |  |
| **Style** | Written in an appropriate scientific/technical style (e.g. third person) using appropriate technical language while avoiding excessive jargon. |  |
| **Mechanics** | Writing is free of spelling, punctuation, and grammatical errors (especially those that impact readability). |  |
| **Plagiarism** | Writing is the student’s own; it is not just paraphrasing other sources |  |
| **Tables** | Tables are easily readable and captioned, use appropriate units, and include a measure of error/uncertainty if appropriate. |  |
| **Figures and plots** | Images are high quality and original or correctly attributed. Images are captioned appropriately. Images have scale bars if appropriate. Plots are formatted for easy readability and fully labeled. Images and plots are referenced and discussed in the text.  |  |
| **Numerical information** | Numerical information is formatted in scientific notation if appropriate and has a justifiable number of significant figures. Sub- and superscripts are correctly formatted.  |  |
| **Equations** | Equations are formatted appropriately, numbered, and cited if necessary.  |  |
| **Acronyms** | Acronyms are defined upon first use and then used consistently |  |
| **References** | An appropriate number of references from high-quality sources are cited. References are consistently formatted using a commonly accepted referencing style.  |  |

# MSE Suggested Writing Rubric: Detailed Version

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| Attribute | Satisfactory | Unsatisfactory |
| Content\* | Papers exhibit at least some evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide at least an adequate discussion with basic understanding of sources. | Papers either include a central idea(s) that is unclear or off- topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources. |
| Organization and coherence\* | Documents and paragraphs exhibit at least some identifiable structure for topics, including a clear thesis statement but may require readers to work to follow progression of ideas. | Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader. |
| Argument and support\* | Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the Satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments. | Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis. |
| Style\* | Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical sentence structure. At a minimum, documents will display a less precise use of vocabulary and an uneven use of sentence structure or a writing style that occasionally veers away from word choice or tone appropriate to the context, genre, and discipline. | Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly. |
| Mechanics\* | Papers will feature correct or error-free presentation of ideas. At the weak end of the Satisfactory range, papers may contain some spelling, punctuation, or grammatical errors that remain unobtrusive so they do not muddy the paper’s argument or points. | Papers contain so many mechanical or grammatical errors that they impede the reader’s understanding or severely undermine the writer’s credibility. |
| Plagiarism | All sources of information should be rewritten in the voice of the author. Any significant use of text from another paper must be cited and properly formatted. Paper should have a plagiarism detection score of less than 10%. | Some sources of information are not rewritten in the voice of the author. Significant use of text from another paper is used but not cited or properly formatted. Paper has plagiarism detection score of greater than 10%. |
| Images | Images are original or correctly attributed. Plots and charts should not be photos of the computer screen. All images need a figure number and caption which goes below the image. The caption must explain the main take-away for the image. Areas of interest in the image should be circled or have an arrow drawn to guide the reader. All images have to have a scale bar if appropriate and scale bar has to be readable. If images are compared scale should be the same in all images.Plots must have labels for axes (variable, units) and a figure number and caption. Axis labels must be large enough to read easily. Plots must be called out explicitly in the text and the plotting software must be referenced and cited. Any fitting routines should be discussed, and the plot should have the fit line shown with the equation. Multiple plots on a graph need a clear legend to guide the reader. If colors are used, they should be distinguishable by those who may have visual limitations. Plots should all be uniform in size. If appropriate, plots should have error bars. | Images are screenshots of work or blurry with poor resolution. Images are different sizes, or do not have figure numbers or captions. Area(s) of interest in the image may not be noted. Captions may contain incomplete information to guide the reader. Images may not contain scale bars, or compared images may have different scales.Plots do not have axes labels or legend or the labels are not properly displayed or missing information. Labels may be too small. Plotting software and methods of fit may not be explained for the plots. Plots may vary in size. Plots may not be called out or discussed explicitly in text. Plots may be blurry. Data plots requiring error bars are missing the error bars. |
| Tables | Tables are made using a text editor and have clear column and row headings with units if needed. Displayed units are standardized (no mixing of SI and English units). The columns are spaced so that the numbers or text are readable. Tables have a Table number (displayed above the table) and a caption explaining the main take away from the table. If averages are presented in the table, they have the associated error displayed. Tables may not be copied from a journal or pasted from a CES Edu Pack standard table. Data or information is extracted from sources and put into a new table, with all sources referenced. | Tables may be screenshots or pasted in from another source. Tables may not have units, or may have mixed or improper units displayed. Tables may be incorrectly labeled as figures or may not have the title and caption in the correct place. Table may show averages, but not the associated error. Data from external sources may not be cited in the table. |
| Discussion of Images and Tables | Images are presented explicitly in the text discussion first then shown and discussed for contextual information. Multiple images are shown one after the other with text discussion breaking up the images. Multiple combined images have sublabels (a, b, c) and are discussed in the caption and body of the paper. Plots should all be uniform in size. If plots contain information about error, the error must be discussed in the text. | Images may be presented but are not explicitly called out in the text discussion. Images may be presented but not discussed at all, or not discussed in context of what the reader needs to know about them. Multiple plots in one graph may be shown but do not have text discussion of what all the plots are, or what they mean in context of the experimental discussion. Data plots requiring error discussion are missing the discussion or the discussion lacks context. |
| Numerical information and data | Scientific notation is used for large or small numbers. Superscripts and subscripts are used properly in equations, scientific notation, and units. Appropriate numbers of significant figures are used.  | Scientific notation is not used for large or small numbers. Superscripts and subscripts are not used properly in equations, scientific notation, and units. There may be a mixture of the way notation or units are being used in the paper. Inappropriate numbers of significant figures are included.  |
| Equations | Equations are written properly in text editor. Equations are numbered, offset in the body of the text, and cited as appropriate.  | Equations are not properly written using a text editor. Equations are not numbered or offset in text. Equations may be used but are not cited.  |
| Acronyms | The first time an acronym is used, it is represented in works first and then the acronym or symbol is displayed in parenthesis. After that the acronym or symbol is used consistently for case and usage. | Acronym(s) are not used uniformly or are not introduced first represented by words. |
| References | An appropriate number of references are included. References are completed properly and consistently using an accepted format (e.g., IEEE, APS, or APA) style. When references are copied from the internet, they are reformatted to meet the font style, size, and conventions in the paper. Internet sources used as references are properly formatted. Software and equipment used are properly referenced. | References may be incomplete or may be formatted incorrectly. There may be copy/paste issues from using an internet source for the citation. Software and equipment may not be cited or cited improperly. Websites or textbooks may be cited incorrectly. |

\*Taken directly from the UF Writing Rubric.