

MARS 5470/4470 Fall 2019

Introduction to Scientific Computing

Assignment and Rubric for grading final papers

Due Wednesday 12/11/19 at 11:59 PM CT

## **Assignment**

The goal of this assignment is for you to practice writing up your research in the standard scientific format. Your report can be up to 10 pages, including figures, formatted in LaTeX/Overleaf. It should take the form of a scientific article with the following sections: Abstract, Introduction, Methods, Results, Discussion, Bibliography. Your bibliography should have about 3-10 references, cited using a .bib file. At least 2-5 figures or tables are required. Provide a cleaned-up sample code in an appendix or supplement.

The target audience for this paper is your fellow students. Think of future students of this class reading your report for inspiration and guidance.

Focus on briefly writing up your methods, clear presentation of your results, and discuss what these results mean. Your introduction should be succinct, and just enough to contextualize your study and set up your discussion, which should include conclusions. You might discuss coding pitfalls you encountered briefly. In general, practice using concise scientific language, minimizing the number of words needed to convey your meaning. Writing a shorter paper that is clear, to the point, and easy to read is much better than a longer, rambling one. Be kind to your reader.

As per the syllabus, this paper is worth 20% of your final grade. Deductions will be taken for late submission. Papers should be loaded into github and named `final_report_yourname.pdf`. Include a .zip file of all of your overleaf source files with the same name.

## Rubric

Name of Student:

1. Has abstract (5 pts)
2. Has bibliography (5 pts)
3. Has introduction that is not too long (10 pts)
4. Has at least 2-5 figures and/or tables (10 pts)  
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5. Methods are explained clearly and succinctly (10 pts)
6. Results are explained clearly and succinctly with supporting figures/tables (10 pts)
7. Discussion exists and makes sense (10 pts)
8. Amount of work done is appropriate (20 pts)
9. Writing is reasonably decent: complete sentences, no missing words (10 pts)
10. Has cleaned up example code (10 pts)

Deductions for: too long, late, improper citations, etc.

Total:     /100