

## MTH 459, LaTeX Tutorial #6, Spring 2025

One of the technical aspects of this course will be to learn some basic elements of working with LaTeX. LaTeX is a markup language for documents that can handle mathematical code, styles, citations and bibliographies, graphs and more. But working with the code language does take some practice. We are going to start by setting up an account on Overleaf, a free website for working with LaTeX that can compile your documents for you and convert them into pdfs. Each assignment will build on previous assignments to add more functionality to your document.

The final LaTeX assignment is to put all the elements from the previous 5 exercises together. Create a document that is at least 4 pages long that incorporates the following elements:

1. From Tutorial #1, text paragraphs, header, and one list (can be either bulleted or numbered)
2. From Tutorial #2, at least one outside reference (these can be references for LaTeX), and cite it somewhere in the document.
3. From Tutorial #3, insert a graph (for example, one created in R), or a table with appropriate labeling for referencing in the text.
4. From Tutorial #4, include a mathematical equation
5. From Tutorial #5, include a TikZ graph (steps 4 and 5 could be related) that is appropriately labeled.

Feel free to experiment with different elements. Your document should be reasonably coherent, and on a single topic (for example, it could be a summary of your research topic, or a description of a machine learning algorithm we covered in another course, or just an explanation of a problem-solving approach from another mathematical subject).

If you prefer, you could complete your final capstone project in LaTeX to satisfy this assignment (regardless of the specific elements in the list above).

**Submission:** Once the document has been customized to your satisfaction, submit the pdf in the dropbox for the assignment in Blackboard.