

# README

January 21, 2019

## Introduction

The purpose of this document is to provide contributing authors with a guide to how to create and format documents for the UT Austin Undergraduate Math Journal (hereafter UMJ). This document is not intended as a guide for how to use  $\text{\LaTeX}$ . There are many  $\text{\LaTeX}$  tutorial sources which are readily available online, a good example being *The Not So Short Introduction to  $\text{\LaTeX}2_\epsilon$*  by Tobias Oetiker, Hubert Partl, Irene Hyna, and Elizabeth Schlegl. If you do decide to write a piece for the UMJ then the first thing you will need to do is download the required packages, titled `fancychap.sty` and `utmathjournal.sty`. The former handles mostly display of chapter headings, while the latter takes care of the rest of the formatting. You will also need to download the template file simply titled `Template.tex`.

## General Info

Feel free to use the first person or the royal we. We want the math journal to have an inviting, conversational feel to it. Every bit of mathematical exposition should feel like a partnership between the author and the reader to work through the math together. Whatever voice you choose, make sure you stay consistent.

Few pieces of mathematical writing are entirely self-contained, although you should try to make your contribution reasonably so. Consider providing a section of background material that more knowledgeable readers can skip. Define enough terms to enable an eager undergraduate student to read your piece without having to consult outside references.

## Preamble Content

In order to minimize compatibility issues, please try to keep your use of new commands, custom macros, and other personalized preamble content at a minimum. If you absolutely need something then let us know and we will add it to `utmathjournal.sty`. All available packages, new commands, and math operators are clearly listed and labeled in `utmathjournal.sty`.

## Theorem Environments

Theorem environments exist for:

- Claim
- Corollary

- Definition
- Example
- Exercise
- Lemma
- Proposition
- Remark
- Theorem

Each has numbered and unnumbered variants, with syntax specified in `utmathjournal.sty`.

## Numbering

Due to the collaborative nature of the UMJ, numbering is something that can be a bit tricky to keep track of across multiple submissions. Elaborate organizational schemes can also be difficult for readers. As such, refrain from using subsections and subsubsections. If you want to add an unnumbered section then use `\addsec{...}` instead of `\section*{...}` (this helps keep labeling correct for the table of contents). Numbering for equations, figures, and tables counts up from 1 and is independent of section numbering.

## Pictures

If your submission contains pictures not generated within  $\text{\LaTeX}$  then please include them in a folder titled `Pictures_<Lastname>_<Firstname>`. For example, `Pictures_Doe_John` is the title associated to John Doe. Your preamble should include the line:

```
\graphicspath{{./Pictures_<Lastname>_<Firstname>/}}
```

Vector graphics are the preferred option because they, unlike bitmap graphics, behave well under scaling and rotation without loss of quality. If you need help drawing a picture then send your best approximation to `utmathjournal@gmail.com` – if even that is too much then give your best verbal description. Resources you might find helpful for working with graphics include:

- <https://tug.org/pracjourn/2010-1/morales/morales.pdf>
- <https://www.tug.org/TUGboat/tb26-1/hoepfner.pdf>

## Footnotes

Footnotes should be used sparingly as they break up the flow of a document and thereby cause difficulties for readers. When in doubt, think about whether something should be included in the body of the text, if at all.

## References

Provide friendly references for readers intrigued by your exposition. Your bibliography should contain sources you reference directly – suggested reading is welcome but should be placed in a separate section titled “Suggested Reading” located near the end of the document.

## Submission

When the time comes for you to submit your document, send your  $\text{\TeX}$  file along with any relevant material to [utmajournal@gmail.com](mailto:utmajournal@gmail.com).