

# *Teaching L<sup>A</sup>T<sub>E</sub>X to a General Science Audience*

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# W&J's Intersession

Intersession: our version of a January term. It lasts 3–3.5 weeks (15–17 classes).

Faculty are encouraged to develop non-Catalog courses that explore their interests.

Faculty teach one course; students take one course. There's an opportunity for focused study with minimal academic distractions.

Initial idea: typography and L<sup>A</sup>T<sub>E</sub>X.

# Why L<sup>A</sup>T<sub>E</sub>X?

It is simply the best typesetting engine for mathematics.

- Better than MS Word.
- Better than Scientific Notebook/Workplace.

L<sup>A</sup>T<sub>E</sub>X is challenging, especially at first, so Intersession would be the best chance for a student to pick up L<sup>A</sup>T<sub>E</sub>X.

L<sup>A</sup>T<sub>E</sub>X would be helpful for anyone needing to type any equations, formulas, or mathematical symbols. Applies to most/all sciences!

What was this class like?

- Called *Introduction to Scientific Typesetting*
- Two 90-minute classes/day.
- Short lectures (roughly 30–45 minutes each)
- Time to work on assignments/projects in class
- Lots of uninterested freshmen
- Cheating!

# Changes for January 2010

Much, much better!

- One 2.5-hour class/day
- Better content organization
- More examples during class (lecture, students work on example, lecture, example, . . .)
- More targeted assignments
- Fewer uninterested freshmen
- More ominous, threatening language in syllabus about cheating

# The Content of the Course

## 2010 Content

- Introduction
- Typing Text
- Lists and Tables
- Typing Math
- Document Structure
- Counters, Theorems, Cross-references, Lists
- Graphics and Floats
- BibTeX
- Hyperref
- Presentations
- Babel, Multicol, Titlesec
- Verbatim and Pstricks
- More Pstricks
- Fonts
- Helper Software (LaTable, LaTeXDraw)

# Assignments and Final Projects

**Daily:** Students had Reproduce-this assignments.

**Longer term:** Students had several assignments where they had to make one of their papers/assignments from a previous class look better.

**Final Project:** Students had to demonstrate the use and usefulness of a  $\text{\LaTeX}$  package, giving a presentation and writing a short paper.

## In the Future

Not a lot of  $\text{\LaTeX}$  material left to add of interest to a general audience.

More work/reading about digital typography.

- Read some of Knuth's work?
- Think critically about what makes an article/book/paper *attractive*.

`http://tinyurl.com/maa-talk-latex`

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