LaTeX Seminar Week 1

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What's a LaTeX?

- LaTeX ("lah-tech" or "lay-tech") is a markup language - one that allows the author to more precisely (and easily) specify how layout and content are combined

- LaTeX (and yes, that's how it is to be written) is based on Dr. Donald Knuth's TeX typesetting system
  - Built for a "minimal amount of effort" for the author to produce high-quality documents, and
  - Be totally platform- and time-independent for resultant documents.

What's it good for?

(Besides making text look good...)

- LaTex is designed both for digital and hard-copy media

- Hyperlinks and document bookmarks in pdf

- High quality non-rasterized fonts for arbitrary sized printing
- Embedding vector-graphics

What's it Look Like?

- LaTeX documents are mostly the text you want displayed, just with some additional info for anything else.

- Example follows:

A Simple Document Like This....

```
\documentclass{article}
\title{This is a title}
\author{Evan Ott}
\date{\today}
\begin{document}
\maketitle
\begin{abstract}
    This is my abstract
\end{abstract}
\begin{section}{This is a section}
    \begin{subsection}{This is a subsection}
        Here is text
    \end{subsection}
\end{section}
\end{document}
```

Produces Documents Like This...

This is a title

Evan Ott

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Abstract

This is my abstract

1   This is a section

1.1   This is a subsection

Here is text

Getting LaTeX

- To use LaTeX, you need to download the compiler (takes your code and produces the document)

- Many ways to edit the code, but we will use these two:
  - Texmaker - Jonathan
    - Displays everything at once, including document structure, document, errors, etc.
    - Various "shorthand" hotkeys, etc.
  - TeXworks - Evan
    - Streamlined, simple
    - All about the code, then document review

Downloading Texmaker

Texmaker is available for most platforms in one place.

- www.xm1math.net/texmaker/download.html

Linux: check package manager first
    Ubuntu: sudo apt-get install texmaker
    Fedora: yum install texmaker
    Other: check your favorite search engine

Downloading TexWorks

TexWorks is contained in larger LaTeX distributions.

Windows: Go to http://miktex.org/download
Mac: Go to tug.org/mactex
Linux:
  Ubuntu: sudo apt-get install texworks
  Other: try standard install procedure for "texworks"

Sample Template

Go to:
http://www.ph.utexas.edu/~sps/LaTeX/
and download Week1.tex