The Architecture of a Latex document

*LESSON 1: Latex is pedantic!! Let’s just get that out of the way.*

**Preamble:** *Any input or specifications that apply to the whole document are entered above the document body tags.*

* commands always start with \ arguments are always in {}
* options associated with your command are always in []. Options are comma delimited
* comments always start with %

Document Class

\documentclass[12pt]{article}

%the whole document will be in 12 pt

Packages

\usepackage{amsmath}

%allows you to do some fancy math stuff that you wouldn’t have been able to do otherwise (we’ll come back to this)

Document Settings

\title[12pt}{ This is Your Title}

%use “\title{\LaTeX \_\_\_\_\_\_\_\_}” to get the fancypants Latex typeset as your title

\author{Your Name}

\date{} %this will remove the date from your document (it’s included by default)

Document: *Within the document: tex files have a body tag (see above) with multiple tags within (figure, equation, table, lists). Much like HTMLs.*

\\begin{Document}

STUFF

\maketitle %this will look to your preamble for instructions (\title)

\section{This is a section}

Your Latex system produces a .tex file, but you can also make a .dui file or .ps file

Use pdflatex<filename> and you will produce a .pdf file

%if you add an asterick (as in \section\*{This is a section}, this section will not be numbered.

Now we can type away!

\subsection{Less than a section}

Hello World!

One next line does not make a new paragraph…

But two next lines do make a new paragraph!

\subsubsection{hoagie on a train section!}

Notice that the first paragraph is not indented, but we are! The first paragraph is not intended by default, but the following new paragraphs will be.

\begin{center}

Centered paragraph (equations are centered by default)

\end{center}

We are still in the same paragraph, but \texttit{\textbf{not}} centered.

\paragraph{Ad Nauseum}

See what we did here? Cool, huh? Check out this equation inline : $x=y^{11}>\delta4\rho+\Delta x^5\_\beta$

Or an equation on its own line

\begin{equation}

\frac{22}{7}^{\circ}

%notice it’s automatically numbered (we’ll come back to this)

\end{equation}

\end{Document}

Don’t have a style sheet or a package? Your journal or abstract submission group may have a specific style they expect. See if you can download a template, and put into into the folder where you tex file is so Latex will “know” to use it. It’s nice to hang on to old files and regurgitate as needed.