Get Started with LaTeX

Hongchen Wu

Stony Brook University

1. Structure of a LaTeX document

```
\documentclass{article}

\usepackage{color} % this package provides the command \color{}
\renewcommand\thesection{\color{blue}\arabic{section}}

\begin{document}

\section{Introduction}

Blah blah.

\section{Experiment}

Blah blah.

\section{Conclusion}

Blah blah.

\end{document}
```

1. Structure of a LaTeX document

- The command **** does a line break, but it does *not* introduce a new paragraph
- The command for separating one paragraph from another paragraph is **\par**
- **parskip** package, used for setting the length between two paragraphs.

```
\documentclass{article}
\setlength{\parindent}{0em}
\setlength{\parskip}{1ex}
\begin{document}

This is the first paragraph.
Wasn't that a great topic sentence?

Next paragraph please.
Paragraph number two is the best.
\par
The third paragraph will rule them all.
Sorry about the Lord of the Rings reference.

This concludes my five paragraph essay. As you can see, my conclusion definitely follows.

Yes I can count.
Jeeze.

\end{document}
```

2. Quotes, dashes and formatting text

To typeset double open quotes, write ``.

To typeset double close quotes, write ''.

To typeset a single open quote, write `.

To typeset a single close quote, write '.

To typeset an en-dash, write --.

To typeset an em-dash, write ---.

To typeset something in bold, use **\textbf{}**.

To typeset something in italics, use **\textit{}**.

To typeset something in small caps, use **\textsc{}**.

To typeset something in a mono-spaced font, use **\texttt{}**.

3. Linguistic examples

- There are two main packages for typesetting linguistic examples, **gb4e** and **ExPex**.
- **gb4e** package works well in most cases. For more complicated use cases, you might want to learn **ExPex.**

3. Linguistic examples

- There are two main packages that are useful for typesetting linguistics trees, **tikz-qtree** and **forest**; the later one is more powerful.

A. \usepackage{forest}%% for linguistic trees
B. \usepackage{tikz} % for linguistic trees
C. \usepackage{tikz-qtree, ,tikz-qtree-compat} % for linguistic trees
D. \tikzset{every tree node/.style={align=center, anchor=north}}% set up the arrows

3. Linguistic examples

- \textit{tipa} package is used for make ipa fonts.

- \usepackage{phonrule} is used for phonology rules.

3. Linguistic examples

- \usepackage{amsmath} % for semantic representation
- \usepackage{stmaryrd} % for semantic representation [[ ]]

4. Tables and images

- One useful package for making aesthetically pleasing tables is the package called **booktabs**. It provides commands called **\toprule**, **\bottomrule**, and **\midrule** for nicer horizontal rules in a table.

```
\documentclass{article}
\begin{document}

\begin{tabular}{lcr}
    Left-aligned column & Center-aligned column & Right-aligned column \\ \hline
    56\%                & 75\%                  & 34\%                  \\
\end{tabular}

\end{document}
```

4. Tables and images

```
\documentclass{article}
\usepackage{booktabs}
\begin{document}

\begin{tabular}
    \toprule
              &
    Adults    &
    Children  &
    \bottomrule
\end{tabular}

\end{document}
```

	Passive sentences	Active sentences
Adults	99%	98%
Children	56%	87%

4. Tables and Images

- **\usepackage**{graphicx}
- **\graphicspath**{ {figure/} } : the package graphicx will look in the folder called figure for images

```
\documentclass{article}
\usepackage{graphicx}
\graphicspath{ {figure/} }
\begin{document}

\includegraphics[width=.8\textwidth]{super-important-graph}

\end{document}
```

4. Tables and Images

- Tables and images as floats

- **\caption**{} allows you to give a caption to the table or figure.
- a float environment, htbp

- Tables and images as non-float

- The package **capt-of**
- **\begin**{center}...**\end**{center}.

5. Cross-references

```
\documentclass{article}
\usepackage{graphicx}
\begin{document}

As can be seen in Figure~\ref{fig:important-graph}, the results clearly show that I'm right.

\begin{figure}[htbp]
    \centering
    \includegraphics[width=.8\textwidth]{example-image-a}
    \caption{Super scientificy graphy thingy}
    \label{fig:important-graph}
\end{figure}

\end{document}
```

6. Bibliographies and citations

- **The .bib file** You need to create a bibliographic database that contains all of the information for all of the references that you wish to cite in your .tex documents.
- Platform: JabRef or BibDesk.

- **Use existing bibliography files**:

- Lingbib
- Johnson bib file

- **\citep[][]{...}**

```
\documentclass{article}

\begin{filecontents}{\jobname.bib}
@book{chomsky1995:MP,
    Address = {Cambridge, MA},
    Author = {Chomsky, Noam},
    Publisher = {The MIT Press},
    Title = {The Minimalist Program},
    Year = {1995}}
\end{filecontents}

\usepackage{natbib}

\begin{document}

In Minimalist syntax, S-Structure has been eliminated \citep[see][73--124]{chomsky1995:MP}.

\bibliography{\jobname}
% the following will only work if unified.bst is in your local texmf folder
% if you haven't downloaded that file yet, just replace unified with
% apalike and then try compiling this example
\bibliographystyle{unified}
\end{document}
```

References:

- Liter, Adam. 2015. *LATEX workshop (for linguists),* presented at the 2015 Chicago Linguistic Institute. Retrieved 5 June, 2017 from https://github.com/adamliter/latex-workshop.