JMORF/MORS — Morpho-Syntax

Using LaTeX in linguistics

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LaTeX
Location: KB-1.11

Overview

- What LaTeX is, and what it is not
- Why you might want it
- What it is good at, for us in particular
- The basics: a document, commands, environments, formatting
- Next week we will test it, so make an account on Overleaf

These slides follow the first part of a handout by András Bárány — see the acknowledgments at the end.

What is LaTeX?

What is LaTeX?

LaTeX is a **typesetting system** for making documents.

- Scientific papers and presentations
- Your thesis
- Letters, reports, books, ...

For this course: your problem sets, and your assignment.

What LaTeX is *not*

LaTeX is not **what you see is what you get**, unlike Word or LibreOffice.

In a word processor, the thing you edit *is* the thing you get. In LaTeX the document is split up:

- You edit a plain text file ending in `.tex`
- That file is **rendered** to give an output file
- The output is normally a `.pdf`
- Other files can be pulled in: images, bibliographies, ...
- You can output `.tex` from a program, and **include** it in your document

Why would you want that?

- Separating the content from the output gives you **flexibility**
- The same content can be rendered differently
- You can make slides *and* a handout from one source
- Editing a text file is **more precise**: you say exactly what you mean, and it does not change under you
- It works well with version control systems (like github)

It is also **stable**: a file from twenty years ago still builds, and builds the same.

What it is good at

What LaTeX can do for a linguist

- Bibliographies that look after themselves (`biblatex`, `natbib`)
- Long documents with many chapters
- Contents, lists of figures, lists of abbreviations
- Unicode: IPA, Hangul, Chinese, ...
- Numbered examples, glosses, syntax trees, AVMs

The last one is why we use it in this course.

Unicode: it just works

(1) Korean
안녕하세요 [aɲɲʌŋɦasʰejo] “hello” [kor]

```
\begin{exe}
\ex Korean \\
  안녕하세요 [aɲɲʌŋɦasʰejo] ``hello'' [kor]
\end{exe}
```

You type the characters and they come out — as long as you compile with `xelatex` and pick a font that has them.

Glossed examples

(2) Hungarian [hun]
Ez egy komplex-ebb példa.
DEM INDF.DET complex-CMPR example
"This is a more complex example."

```
\begin{exe}
\ex Hungarian [hun] \\
  \gll Ez egy komplex-ebb példa. \\
       \textsc{dem} \textsc{indf.det} complex-\textsc{cmpr} example \\
  \trans ``This is a more complex example.''
\end{exe}
```

The two lines line up by themselves, and the example is numbered for you — inserting one above does not mean renumbering by hand.

The basics

A simple document

A `.tex` file needs at least two things:

- a **preamble**, which sets up the form of the output
- a **document** environment, which holds the content

```
1 \documentclass{article}
2
3 \begin{document}
4 Hello, world.
5 % This is a comment.
6 \end{document}
```

Commands and environments

LaTeX has two kinds of thing.

- A **command** starts with a backslash, then a name, then zero or more arguments in braces
  `\textbf{bold}` gives **bold**

- An **environment** is opened with `\begin{...}` and closed with `\end{...}`
  this list is an `itemize` environment
  the content of a file sits in a `document` environment

Anything after a % is a **comment** and is ignored.

Simple formatting

- `\emph{...}` for *emphasis*
- `\textbf{...}` for **bold**
- `\textsc{...}` for SMALL CAPITALS
- `\texttt{...}` for `typewritten text`
- `\footnote{...}` for a footnote

```
\begin{itemize}
  \item You \emph{emphasise} text with \emph{...}
  \item Use \textbf{...} for bold text
  \item Use \textsc{...} for small capitals
\end{itemize}
```

Titles and sections

- Sections and subsections are **numbered for you**
- So are examples, figures, tables and footnotes
- A title is made from a title, an author and a date

```
\title{An interesting phenomenon}
\author{Kim Smith \and Sandy Jones}
\date{31 January 2027}
\maketitle

\section{Introduction}
```

Next week

You will write your first document next week.

- Make an account at `https://www.overleaf.com/`
- Start a new project and upload our template:
  `assignment.tex` and `assignment.bib` from the assignment page
- Press Recompile and see what comes out
- Then change the title to your own and recompile again

If something breaks, read the *first* error message: the ones after it are usually only consequences of the first.

Acknowledgments and References

- These slides follow the first four pages of
  András Bárány (2026) *Using LaTeX (in linguistics)*, handout for the SGSAH summer school, Glasgow, 24 June 2026.
  `https://andras.barany.at/files/sgsah-latex-intro-handout.pdf`
  Used with thanks; the examples and the order of presentation are his, I have tweaked it a little and the exercises have been pointed at our own template.

- For the linguistics-specific packages see my short guide to formatting HPSG with LaTeX

- Overleaf's own documentation is good, and searchable