

## The `.tex` Format

Writing a  $\text{\LaTeX}$  document is very different from writing a Word document. We write in plain text, and most people prefer to write using a monospaced font. So the physical act of typing  $\text{\LaTeX}$  looks kind of like programming. And like programming,  $\text{\LaTeX}$  requires us to be very careful about how we write. If we make a mistake,  $\text{\LaTeX}$  will throw an error.

A  $\text{\LaTeX}$  document is a plain text file with the extension “tex”. Every document must begin with a documentclass line;  $\text{\LaTeX}$  uses this line to load a set of formatting settings that automatically handle things like page numbers and margins. The basic built-in document classes are “article”, “book”, “report”, and... some others that I can’t remember without looking them up. Most of the time “article” is good enough.

Your document itself – the text you want to show up on the page – goes between the “begin document” and “end document” lines. The space between documentclass and begin document is called the **preamble**. We don’t need to worry about what goes there for now.

Notice that the documentclass, begin document, and end document lines begin with a backslash. This is a special character that  $\text{\TeX}$  uses to recognize *commands*. Commands are the special instructions we use to mark up our document so that  $\text{\LaTeX}$  will typeset it properly. So do not use the backslash character in your text unless you are typing a command. If you want a literal backslash character, say `\` instead.

There are a few other special characters to watch out for: the dollar sign is used for writing math (more on that later) and the percent symbol is used for writing comments in your  $\text{\LaTeX}$  source. If you want a literal dollar sign, say `$`, and if you want a literal percent symbol, say `%`.