

L^AT_EX 2_ε Cheat Sheet

Document classes

<code>book</code>	Default is two-sided.
<code>report</code>	No <code>\part</code> divisions.
<code>article</code>	No <code>\part</code> or <code>\chapter</code> divisions.
<code>letter</code>	Letter (?).
<code>slides</code>	Large sans-serif font.

Used at the very beginning of a document: `\documentclass{class}`.
Use `\begin{document}` to start contents and `\end{document}` to end the document.

Common documentclass options

<code>10pt/11pt/12pt</code>	Font size.
<code>letterpaper/a4paper</code>	Paper size.
<code>twocolumn</code>	Use two columns.
<code>twoside</code>	Set margins for two-sided.
<code>landscape</code>	Landscape orientation. Must use <code>dvips -t landscape</code> .
<code>draft</code>	Double-space lines.
Usage: <code>\documentclass[opt,opt]{class}</code> .	

Packages

<code>fullpage</code>	Use 1 inch margins.
<code>anysize</code>	Set margins: <code>\marginsize{l}{r}{t}{b}</code> .
<code>multicol</code>	Use n columns: <code>\begin{multicols}{n}</code> .
<code>latexsym</code>	Use L ^A T _E X symbol font.
<code>graphicx</code>	Show image: <code>\includegraphics[width=x]{file}</code> .
<code>url</code>	Insert URL: <code>\url{http://...}</code> .
Use before <code>\begin{document}</code> . Usage: <code>\usepackage{package}</code>	

Title

<code>\author{text}</code>	Author of document.
<code>\title{text}</code>	Title of document.
<code>\date{text}</code>	Date.
These commands go before <code>\begin{document}</code> . The declaration <code>\maketitle</code> goes at the top of the document.	

Miscellaneous

<code>\pagestyle{empty}</code>	Empty header, footer and no page numbers.
<code>\tableofcontents</code>	Add a table of contents here.

Document structure

<code>\part{title}</code>	<code>\subsubsection{title}</code>
<code>\chapter{title}</code>	<code>\paragraph{title}</code>
<code>\section{title}</code>	<code>\subparagraph{title}</code>
<code>\subsection{title}</code>	
Use <code>\setcounter{secnumdepth}{x}</code> suppresses heading numbers of depth $> x$, where <code>chapter</code> has depth 0. Use a <code>*</code> , as in <code>\section*{title}</code> , to not number a particular item—these items will also not appear in the table of contents.	

Text environments

<code>\begin{comment}</code>	Comment (not printed). Requires <code>verbatim</code> package.
<code>\begin{quote}</code>	Indented quotation block.
<code>\begin{quotation}</code>	Like <code>quote</code> with indented paragraphs.
<code>\begin{verse}</code>	Quotation block for verse.

Lists

<code>\begin{enumerate}</code>	Numbered list.
<code>\begin{itemize}</code>	Bulleted list.
<code>\begin{description}</code>	Description list.
<code>\item text</code>	Add an item.
<code>\item[x] text</code>	Use x instead of normal bullet or number. Required for descriptions.

References

<code>\label{marker}</code>	Set a marker for cross-reference, often of the form <code>\label{sec:item}</code> .
<code>\ref{marker}</code>	Give section/body number of marker.
<code>\pageref{marker}</code>	Give page number of marker.
<code>\footnote{text}</code>	Print footnote at bottom of page.

Floating bodies

<code>\begin{table}[place]</code>	Add numbered table.
<code>\begin{figure}[place]</code>	Add numbered figure.
<code>\begin{equation}[place]</code>	Add numbered equation.
<code>\caption{text}</code>	Caption for the body.
The <i>place</i> is a list valid placements for the body. <code>t</code> =top, <code>h</code> =here, <code>b</code> =bottom, <code>p</code> =separate page, <code>!</code> =place even if ugly. Captions and label markers should be within the environment.	

Text properties

Font face

Command	Declaration	Effect
<code>\textrm{text}</code>	<code>\rmfamily text</code>	Roman family
<code>\textsf{text}</code>	<code>\sffamily text</code>	Sans serif family
<code>\texttt{text}</code>	<code>\ttfamily text</code>	Typewriter family
<code>\textmd{text}</code>	<code>\mdseries text</code>	Medium series
<code>\textbf{text}</code>	<code>\bfseries text</code>	Bold series
<code>\textup{text}</code>	<code>\upshape text</code>	Upright shape
<code>\textit{text}</code>	<code>\itshape text</code>	<i>Italic shape</i>
<code>\textsl{text}</code>	<code>\slshape text</code>	<i>Slanted shape</i>
<code>\textsc{text}</code>	<code>\scshape text</code>	SMALL CAPS SHAPE
<code>\emph{text}</code>	<code>\em text</code>	<i>Emphasized</i>
<code>\textnormal{text}</code>	<code>\normalfont text</code>	Document font
<code>\underline{text}</code>		<u>Underline</u>

The command (`ttt`) form handles spacing better than the declaration (`ttt`) form.

Font size

<code>\tiny</code>	<small>tiny</small>	<code>\Large</code>	Large
<code>\scriptsize</code>	<small>scriptsize</small>	<code>\LARGE</code>	LARGE
<code>\footnotesize</code>	<small>footnotesize</small>		
<code>\small</code>	<small>small</small>	<code>\huge</code>	huge
<code>\normalsize</code>	<small>normalsize</small>		
<code>\large</code>	<small>large</small>	<code>\Huge</code>	Huge

These are declarations and should be used in the form `\small ...`, or without braces to affect the entire document.

Verbatim text

<code>\begin{verbatim}</code>	Verbatim environment.
<code>\begin{verbatim*}</code>	Spaces are shown as <code>␣</code> .
<code>\verb!text!</code>	Text between the delimiting characters (in this case ‘!’) is verbatim.

Justification

Environment	Declaration
<code>\begin{center}</code>	<code>\centering</code>
<code>\begin{flushleft}</code>	<code>\raggedright</code>
<code>\begin{flushright}</code>	<code>\raggedleft</code>

Miscellaneous

`\linespread{x}` changes the line spacing by the multiplier x .

Text-mode symbols

Symbols

<code>&</code>	<code>\&</code>	<code>-</code>	<code>_</code>	<code>...</code>	<code>\ldots</code>	<code>•</code>	<code>\textbullet</code>
<code>\$</code>	<code>\\$</code>	<code>^</code>	<code>\^{}{}</code>	<code> </code>	<code>\textbar</code>	<code>\</code>	<code>\textbackslash</code>
<code>%</code>	<code>\%</code>	<code>~</code>	<code>\~{}{}</code>	<code>#</code>	<code>\#</code>	<code>§</code>	<code>\S</code>

Accents

<code>ò</code>	<code>\‘o</code>	<code>ó</code>	<code>\’o</code>	<code>ô</code>	<code>\ˆo</code>	<code>õ</code>	<code>\~o</code>	<code>ö</code>	<code>\=o</code>
<code>ó</code>	<code>\.o</code>	<code>ö</code>	<code>\"o</code>	<code>q</code>	<code>\c o</code>	<code>õ</code>	<code>\v o</code>	<code>ő</code>	<code>\H o</code>
<code>ç</code>	<code>\c c</code>	<code>q</code>	<code>\d o</code>	<code>q</code>	<code>\b o</code>	<code>ö</code>	<code>\t oo</code>	<code>œ</code>	<code>\oe</code>
<code>Œ</code>	<code>\OE</code>	<code>æ</code>	<code>\ae</code>	<code>Æ</code>	<code>\AE</code>	<code>ä</code>	<code>\aa</code>	<code>Å</code>	<code>\AA</code>
<code>ø</code>	<code>\o</code>	<code>Ø</code>	<code>\O</code>	<code>ı</code>	<code>\l</code>	<code>Ł</code>	<code>\L</code>	<code>ı</code>	<code>\i</code>
<code>j</code>	<code>\j</code>	<code>i</code>	<code>\‘</code>	<code>ı</code>	<code>\’</code>				

Delimiters

<code>‘</code>	<code>“</code>	<code>‘‘</code>	<code>{ \{</code>	<code>[[</code>	<code>((</code>	<code><</code>	<code>\textless</code>
<code>’</code>	<code>”</code>	<code>’’</code>	<code>} \}</code>	<code>]]</code>	<code>))</code>	<code>></code>	<code>\textgreater</code>

Dashes

Name	Source	Example	Usage
<code>hyphen</code>	<code>-</code>	X-ray	In words.
<code>en-dash</code>	<code>--</code>	1–5	Between numbers.
<code>em-dash</code>	<code>---</code>	Yes—or no?	Punctuation.

Line and page breaks

<code>\</code>	Begin new line without new paragraph.
<code>*</code>	Prohibit pagebreak after linebreak.
<code>\kill</code>	Don’t print current line.
<code>\pagebreak</code>	Start new page.
<code>\noindent</code>	Do not indent current line.

Miscellaneous

<code>\today</code>	March 28, 2017.
<code>\$\sim\$</code>	Prints <code>~</code> instead of <code>\~{}</code> , which makes <code>~</code> .
<code>~</code>	Space, disallow linebreak (W.J.~Clinton).
<code>\@.</code>	Indicate that the <code>.</code> ends a sentence when following an uppercase letter.
<code>\hspace{l}</code>	Horizontal space of length l (Ex: $l = 20\text{pt}$).
<code>\vspace{l}</code>	Vertical space of length l .
<code>\rule{w}{h}</code>	Line of width w and height h .

Tabular environments

tabbing environment

<code>\=</code>	Set tab stop.	<code>\></code>	Go to tab stop.
Tab stops can be set on “invisible” lines with <code>\kill</code> at the end of the line. Normally <code>\</code> is used to separate lines.			

