Seminar Series on Introduction to Research



Document Preparation Using \LaTeX 2 $_{\epsilon}$

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SESSION SERIES PLAN I

- ► Introduction to LATEX
- ► Why use it (or whats wrong with MS-Word)
- ► Terminology
- Getting started
 - Installing the software
 - Setting up the preferences
- Document structure
 - Setting the document class
 - Sections, subsections and formatting
 - Figures and Tables

SESSION SERIES PLAN II

- Using packages (or whats with this undefined control sequence!)
- ► Typesetting Math/Equations
- ▶ Bibliographies (and how not to have headaches working with them)
- ► Advanced topics
- ► Setting up algorithms
- ► Code/program/policies/output formatting
- ► Must-see documents

INTRODUCTION TO LATEX

- ► Based on T_EX
- ▶ Pronounced leh-tek (k being the sound of χ)
- ► Takes in IAT_EX source and generates a number of outputs (dvi, html, rtf, pdf, ps)
- ► The output is concerned with placing boxes around the page
- ▶ Boxes are combined to form other boxes
- Placed using fixed or elastic widths and distances

Introduction (contd.)

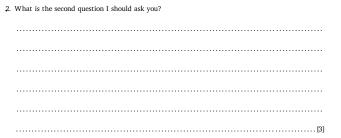
- ► What's wrong with MS-Word?
- ► Lack of control
- ► Have to focus on content and presentation at the same time
- Too much effort required to format for specific conferences/journals
- ► Too much effort to change from one format to another
- Difficult to manage versions
- ► Difficult to manage references (even with EndNote)

Introduction (contd.)

- ► Whats wrong with LaTeX?
- ▶ You need to learn how to use it!
- ► Its not completely intuitive (for some)

THE POWER OF LATEX AN EXAMPLE

Output:



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THE POWER OF LATEX – AN EXAMPLE

Output:

What is the second question I should ask you?		
		[3]

Code:

What is the second question I should ask you? $\protect\prote$

TERMINOLOGY

- Document (the output)
- Document Class (the main type defining the doc)
- ► Package (a file encapsulating commands for a specific purpose)
- ► .sty (style files)
- ► .cls (document class files)
- ► FNDB (filename database)
- update (file/repository/meta information)

MUST SEE DOCUMENTS

- ► "A Not So Short Introduction to LaTeX"
- ► "The LaTeX Comprehensive Symbol List"

GETTING STARTED

- ► To work with LaTeX, you need:
 - ► an editor (TEXnicCenter, Kile, WinEdt, LED)
 - ▶ a compiler (MikT_EX, T_EXLive, tetex ...)
- ► Enough talk. Lets get started!

► Installing software

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- ► Creating your first document

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- ► Algorithms
- ► Mathematical typesetting

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- ► Algorithms
- ► Mathematical typesetting
- ► Cool output boxes with line numbers!

GETTING THE SOURCES

- ► You can get the resources for these sessions here: http://www.csrdu.org/nauman/2011/10/16/latex-screencasts/
- ► Feel free to leave comments on the post there if you have any questions at all. I'll try to answer them as soon as possible.
- ► All the required files (and completed documents) can be downloaded from this page.
- ► You can find a really good resource on learning LATEX here: http://ctan.org/tex-archive/info/lshort/english/ lshort.pdf