# List of Things : Sequence

immediate

March 4, 2017

- Introduction:

  - Work with their download issues (max 10 min !!)
  - Introduce LaTeX: Environment, Founder (Donald Knuth), Originally Developed in (Web) Pascal (now obsolete!).
  - Get a survey of how everyone is doing! Did anyone experiment ? How was it ? How many know preliminary LaTeX. Strike a conversation.
  - Show them something. Maybe PDE Midterm. (Try that in Word!! :P).
  - Version Control. Give them the link to download.
  - Download the Repository.

- Brief them about the environment. Viewport. Pdf Viewer.(Embedded). Do not delete any log/aux files, these are important in compiling the document for later runs.

- Tell them about the first thing. How to start the document ? Class ? Fontsize ? Margins. Use the package `geometry`. See the time limit ? 20 mins ?

- Preamble:

  - Whatever lies between the class and `begin document`. List of packages. (brief explanation of what they are meant to do. )
  - FIXME: Take a copy of the library of packages that you are using. (Early Morning)

- Section

  - Explain about `section*` and `subsection*`
  - Explain about paragraphs and their role in writing a paper. Briefly talk about bold, undelrine, italics, `text` *textit* `texttt`

- Explain difference between url and hyperlink.

- Graphics: We are focussing on floats. Reason being: Time constraint.

  - Tables:
  - Figures/Subfigures: Positioning and details. And work out examples with them.
  - Ask them to download images, inside and outside the parent directory and deal with that! Do not forget to add `graphicspath`. (Before that do a 5 minute exercise on paragraphs, sections, subsections. Adding newlines. How to add new lines. )

- Tables: Write tables. What all details are needed ? What is the best way to add tables if desired. (Hand-input almost never!), how to do then ? Something called Macros. Range from simple to complex ! (We will try to cover the most basic ones.)

- Make them install excel2LaTeX and see if they are able to correctly install it on their respective machines.

- Begin Math Mode !

  - Short Introduction: Inline Math, Out of line math, the difference!
  - Types of Brackets. Curls, Square Brackets, Parenthesis, super(sub)script, trigonometric functions, fractions, derivatives, Integrals (definite and indefinite) $\oint$, , (Install the `esint` package). Summation, Dot Product, $\langle \rangle$, talk about `bf cdot otimes tilde hat bar dot ddot` , ó, ö

- Make them type equations, long equations, without macros and with macros. What happens when they run into multiple lines.

- Matrix, Macros (Again)

- References and BibTeX $\exists$