You must download latex well before coming to class. It's a very large download. Download options are here:

`https://latex-project.org/ftp.html`

Robi mentioned: On using latex on windows - MikTex works pretty much out of the box - `http://miktex.org/download`

Restart Rstudio once you've installed latex, and it should recognize that Latex is installed. Try building a basic sweave document (5 min) following the instructions here:

`http://rstudio-pubs-static.s3.amazonaws.com/639_b3a59601ba94400aabbe29025de83c10.html`

You don't need to create the whole document according to these instructions; you've succeeded once you've entered a little text and compiled the pdf. Note that the file needs to be saved to a path on your computer that has **no spaces**. Latex doesn't like spaces unfortunately. If you have issues compiling this basic document, please troubleshoot for your system before class so we can focus our time on how to use Sweave/knitr.

1 Sweave

Things I mean to mention...

- Reproducible research
- Latex
- NO spaces!
- header, packages, commmands, figures
- R: eval, echo, results. label chunks
- tables (xtable) (can edit manually)
- loads of files created...
- errors are cryptic. many can be ignored.
- Stangle
- vignettes

Resources

- cheatsheet: `https://wch.github.io/latexsheet/latexsheet.pdf`
- tutorial: `http://gosset.wharton.upenn.edu/teaching/471/EPFL-Sweave-powerdot.pdf`
- very short Rstudio article on sweave and knitr integration: `https://support.rstudio.com/hc/en-us/articles/200552056-Using-Sweave-and-knitr`

Some nice tools:

- texshop
- bibtex
- beamer

2 knitR

Resources

- cheatsheet: `https://www.rstudio.com/wp-content/uploads/2015/02/rmarkdown-cheatsheet.pdf`
- tutorial: `http://kbroman.org/knitr_knutshell/`
- an example doc: `http://yihui.name/knitr/demo/minimal/`
- slideshows
- shiny