



Introduction to LaTeX and BibTeX

Markup languages and reproducible programming in statistics

About us

About the course

Format

- Every Monday till the end of the year:
 - 10 am - 12.45 pm
 - This room
 - The first part of every meeting will be a lecture.
 - Every second part will be hands-on / Q&A

If you cannot make a meeting; I'd like to know beforehand.

I'd strongly suggest to come to every meeting

Topics

1. Intro to \LaTeX and $BibTeX$
2. Beamer-presentations and equations
3. Tables and Figures
4. Reproducible workflows with rMarkdown
5. Version control and GitHub repositories
6. Presentations with rMarkdown
7. GitHub pages and Shiny
8. ★ *Showcase your progress*

★ *In week 8 you have to showcase what you have mastered in this course.*

Exercises

To develop the necessary skills for completing this course, 7 exercises (weeks 1-7) must be made and submitted:

- These exercises are not graded, but students must fulfil them to pass the course.
- Exercises have to be handed in **before** the next meeting.
- Answers will be posted after the next meeting.

Grading

The final grade is computed as follows:

Topic	% of Total
Markup manuscript	30%
Research repository	30%
Personal repository	10%
Shiny app	15%
Visual presentation	15%

Good to know

Grading considers concepts like visual appearance, readability, usefulness, efficiency of the code. *Grading does not consider the theoretical or qualitative properties of the content!*

Contact

If you need any help outside of class hours, see [this link](#)

- send me an e-mail at G.Vink@uu.nl containing your question or a [MWE](#):
 - if your problem is with \LaTeX , please send me your '.tex' and (if relevant) '.bib' file.
 - if your problem is with 'R', send me the code and source files
- G+ Hangouts: If you're really in a pickle and need a blazingly fast response
 - contact me at ['askgerko@gmail.com'](mailto:askgerko@gmail.com)

Goal of this course

Learn the skills and tools to present yourself and your work.

Useful for: a phd, career in data science, being at the state-of-the-art in markup programming.

What to do (not in any definitive order)

1. Perform a (monte carlo) simulation study
2. Create a scientific manuscript
3. Program your simulation such that it creates a data archive
4. Publish this archive to GitHub
5. Tell people about yourself on GitHub
6. Showcase your findings through a shiny web-app
7. Create a presentation about your simulations

Before next meeting

1. Choose a subject for your project
2. Install TeX, an editor and a bibliography editor
3. Request a GitHub educational discounted account
4. Make exercise 1 and 2

ΛT_EX

LaTeX

LaTeX is a document preparation system

- its goal is typesetting
- it produces high quality type-setted documents
- publishers use it
- you can virtually produce anything in document form with LaTeX
- it provides you with a system to focus solely on writing
 - you do not have to worry about the layout, etc. LaTeX does.

An example

I'll demonstrate to you a typical LaTeX document.

If you could not make it to class, and you feel the exercises are not sufficient for getting you started; please ask me: I'll be happy to show you in real life or through G+ Hangouts.