

# Digital Skills for Research

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## 1 $\text{\LaTeX}$ and $\text{\TeX}$

### 1.1 Week 1. Setup and Start

<sup>1</sup> Session 1. Why  $\text{\TeX}$  and first doc (pdf, class tex, task)

- What's  $\text{\TeX}$  (distributions, editors, engines, formats, templates)
- Overleaf account and project
- First document (class, packages, layout, title, sections, margins, columns)

Session 2. Text and math (pdf, class tex, task)

- Text formatting
- Special characters
- Math

### Week 2. Environments and Customisation

Session 3. Tables and figures (class tex, task)

- Environments
- Tables
- Graphics and drawing

Session 4. Customisation, cross-referencing and templates (class tex, task)

- Own commands
- Internal and external links
- Templates and big projects

### Week 3. Beamer and Bibs

Session 5. Presentations and posters (class tex, task)

- Beamer themes: layout and colour
- Slides-specific commands
- Producing posters and own .sty

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\*thanks to the RGCL for the opportunity to brush up and systematise this material

<sup>1</sup>to compile pdfs download the necessary support files from the respective folders, not just the linked .tex

Session 6. Bibliographies (class pdf, task)

- Basics on referencing styles
- .bib files and bibliography engines
- Get References section

## 2 Week 4. Mendeley and Github

Session 7. Reference management: Mendeley (class pdf, task)

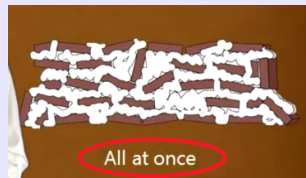
- Basic uses and setting up
- Integration (word processor, browser, project)
- Library use and maintenance

Session 8. Version control and collaboration: Git and GitHub (class pdf, task)

- Keeping track of changes
- Local and remote, push and pull, auth
- Markdown and arranging repos

### Learning strategies behind the workshop design (in the order of importance)

- distributed learning: building skills over time VS cramming all at once

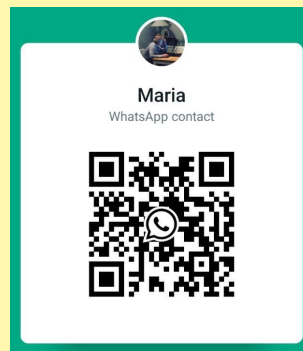


- no-stakes quizzes and retrieval practice (frequent creative engagement with the learnables)
- alternating practice (new skills interspersed with old material)
- organisation of learning effort and stimulus to make in NOW

+ (hopefully) motivation from social interaction and useful personal insights

## Housekeeping

- a class content file and a practical task for each session
- Canvas: Materials; Schedule  
Wed, Fri 10am-11am, live sessions
- GitHub: Source code for all sessions
- Send, or share with, me your source code (m.kunilovskaya@wlv.ac.uk) and track your progress in the course Achievement and Attendance Tracker to earn a certificate and ascertain your level: confident user, familiar with LaTeX, basic skills
- whatsapp: +44 7926 446507 →



Naming convention for any submissions:  
ID\_task#.pdf  
where ID is your unique name and # is  
the number of the training session

## Recommended resources

- **LaTeX:** T<sub>E</sub>X UsersGroup and Overleaf tutorials
- **GitHub:** Pro Git book by Scott Chacon and Ben Straub and Get started from github.com
- **Mendeley:** Official Guides