

# Computational skills programme

# BBSRC / School of Biological Sciences DTP



# Biotechnology and Biological Sciences Research Council

**Student liaison** Hugo Tavares - <a href="https://mex.uk">hm533@cam.ac.uk</a> (Bioinformatics Training Facility, University of Cambridge)

**Contacts** Course organiser for R and reproducible research: Mark Fernandes <a href="mailto:maf72@medschl.cam.ac.uk">maf72@medschl.cam.ac.uk</a> (BTF)

Course organiser for statistics: Martin van Rongen <a href="mv372@cam.ac.uk">mv372@cam.ac.uk</a> (BTF)

#### **Trainers**

Introduction to R: Mark Fernandes (BTF), Silvia Hadeler (Research Office)

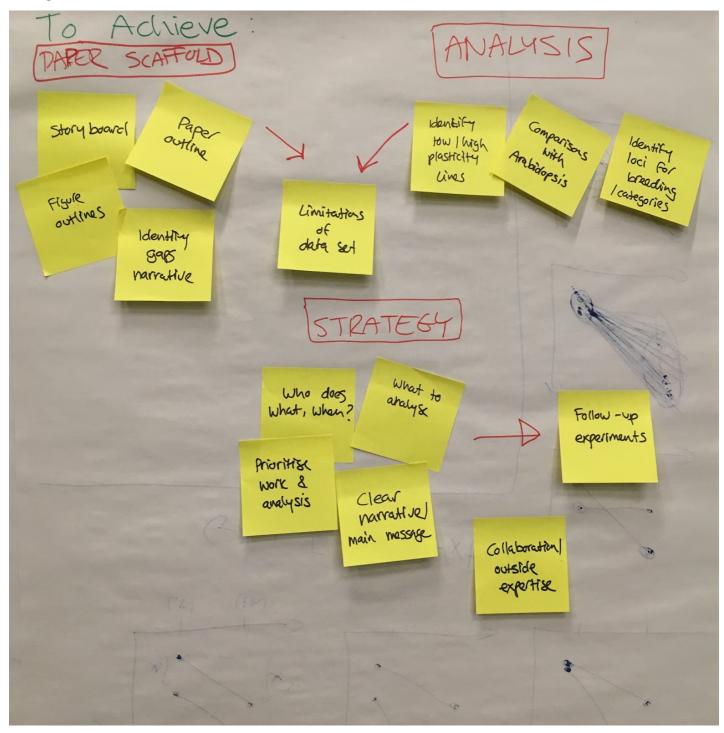
**Core statistics**: Vicki Hodgson (BTF), Martin van Rongen (BTF), Ekim Luo (Psychology), Salomey Addo (Computer Science and Technology)

Advanced statistics: Martin van Rongen (BTF), Blanca Piera Pi-Sunyer (Psychology)

**Reproducible research**: Jiayin Hong (Biochemistry), Mark Fernandes (BTF)

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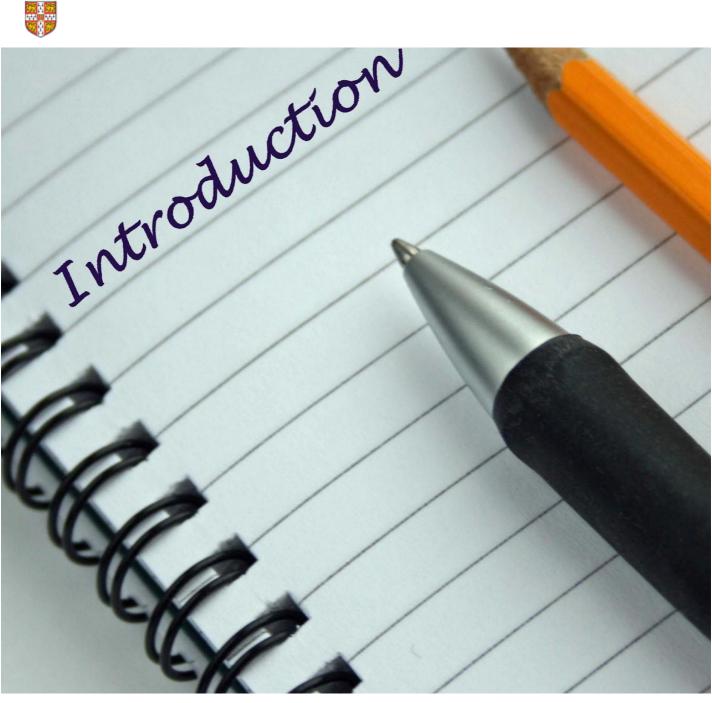
#### **Course materials**

- Introduction to R
- Core statistics
- Advanced statistics
- Reproducible research

Contains course material and practical session exercises. Links to future modules will be added above before each module starts.



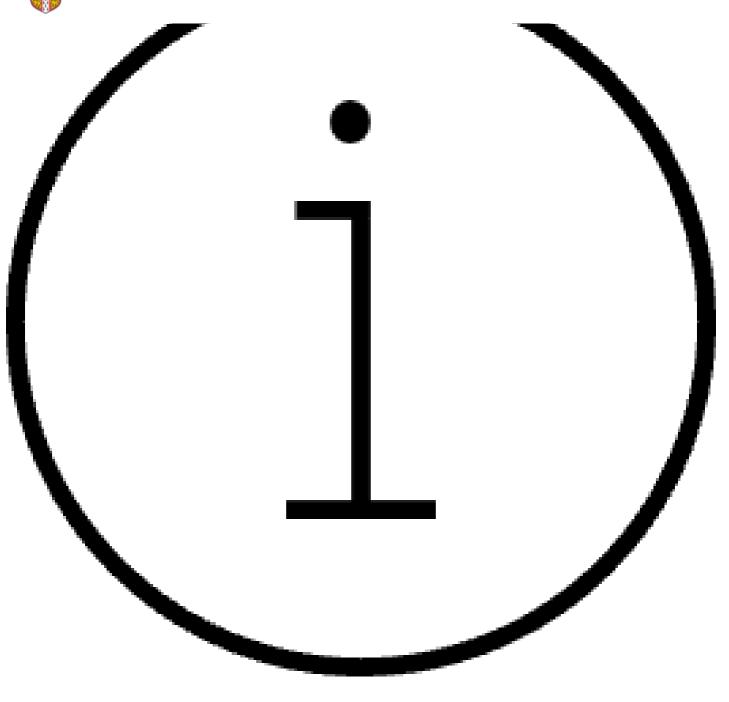




## **Introductions**

Please introduce yourself to the trainers so that they have a better understanding of their audience and your background.







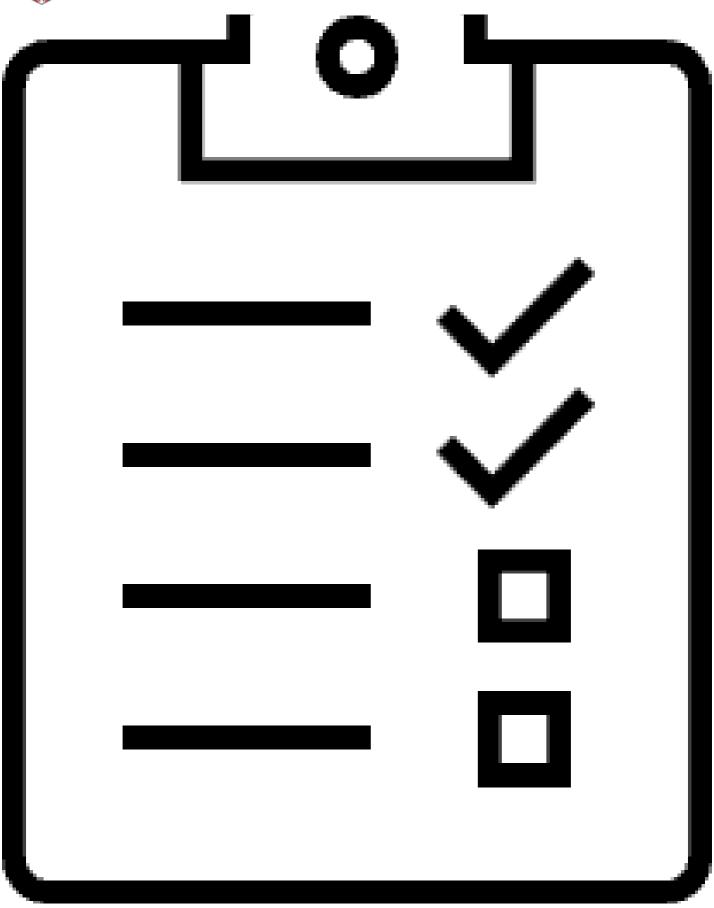


- Introduction to R = 9, 16, 23, 30 October 2023 @ 13:30 17:30
- Core statistics = 20, 27 November, 4, 11 December 2023 and 8, 15 January 2024 @ 13:30 17:00
- Advanced statistics = 22, 29 January, 5 February 2024 @ 13:30 17:00
- Reproducible research = 12, 19 February 2024 @ 13:30 17:00

#### Venue:

- All sessions (unless otherwise advised) are to be held in person at the <u>The Pembroke Teaching Rooms</u>, <u>76 Trumpington Street</u> and are scheduled for Monday afternoons during Michaelmas and Lent term. Students should access the rooms through the new gated entrance off Trumpington Road between 74 Trumpington Street and Emmanuel United Reformed church. The entrance to the teaching rooms is through the white door on the right, in Chiu courtyard. For visual assistance, please <u>consult this document</u>.
- Please note: NO bicycles are to be parked around Chiu Court and outside the entrance to 74 Trumpington. Please only leave bikes in the designated cycle racks, located in Chiu Court or parked at the designated areas on the Silver Street site, accessed via Mill Lane.
- Most sessions will consist of a mix of lectures, interactive practicals and self-paced computational exercises.
- All material, resources and datasets for practicals will be provided. Information will be provided ahead of the start of the module.





## **Before the course**

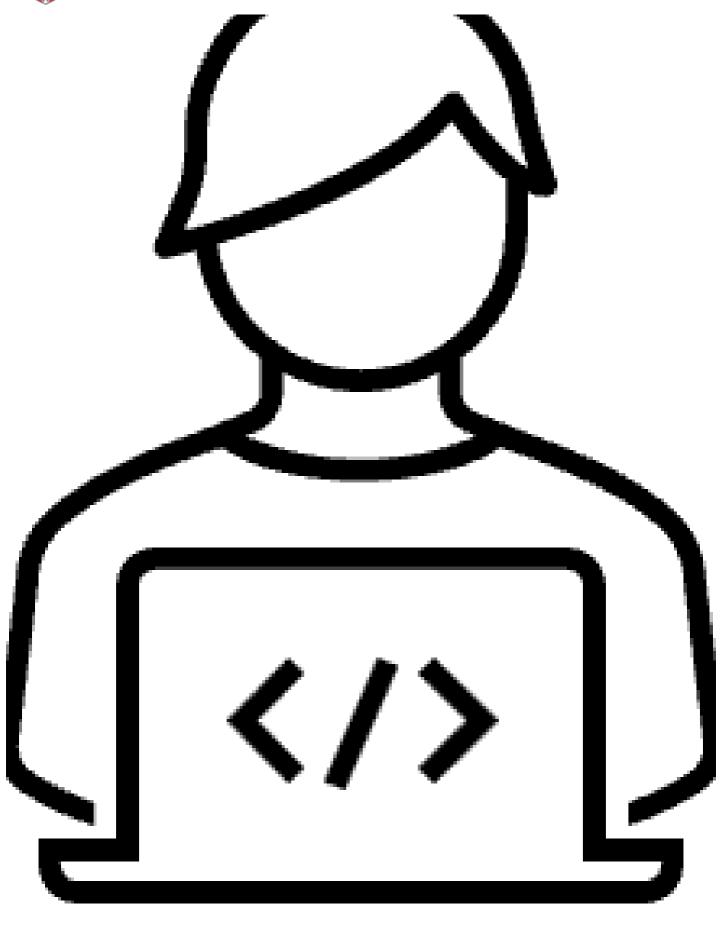
Please ensure that you arrive 10 minutes before the start of each session.

P. is follow any set-up instructions before the course in the "Software" section below.











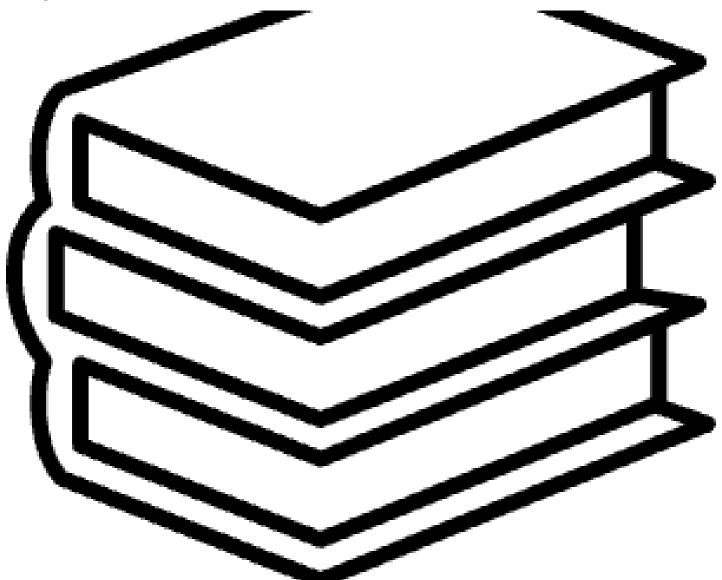


have **RStudio/R and tidyverse** installed prior to the course and that you have admin rights on the laptop to install additional programmes if needed. Installation instructions can either be found on the Course materials page or by following the instructions below.

- RStudio/R and tidyverse <u>Installation instructions</u>.
- Core Statistics requires you to have RStudio/R and tidyverse installed on your laptop, installation instructions above.
- Setup a Github account before the Reproducible Research session using <u>Pre-course Github preparation instructions</u>. Please remember to bring your phones/device that the 2Factor authenticator is installed on (or you won't be able to login to Github and do the RepRes in R course.







## **Lecture slides**

## Core statistics using R

Advanced statistics (to be advised)

Reproducible research with R (to be advised)





Sign up to our mailing list, Twitter or Mastodon to get notifications of upcoming courses.

Our **timetable** shows our upcoming courses.

Interested in teaching? **Become one of our trainers**?

If you're at Cambridge:

**Join the UoC-Bioinformatics Slack** 





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