## MSc course Research Skills – course overview

| Monday   | Tuesday  | Wednesday   | Thursday   | Friday  |
|--|--|---|--|---|
| Science and the<br>scientific method<br>Finding a question<br>Previous work<br>Novelty                                   | On the shoulder of giants: dealing with the scientific literature  Searching, Literat. DB, Jabref etc.  Morning practicals | Question rev.  Intro to statistics Regression, NHST  Design of Experiments Planning Statistical power | Field day<br>Data collection   | Scientific Ethics<br>and Culture  Organizing your<br>Research  Misconduct, good<br>scientific practice,<br>reproducibility,<br>scripting, archiving |
| Monday   | Tuesday  | Wednesday   | Thursday   | Friday  |
| Introduction to<br>Graphics in R<br>Morning practical:<br>graphics with R<br>Afternoon exercise:<br>visual data analysis | LaTeX  Morning practical:     LaTeX  Afternoon exercise:     your document in     LaTeX                                    | Regression<br>analysis in R<br>Afternoon tutorial:<br>help with analyzing<br>your data in R           | Writing 1  Article types, Publication Process  Structure of a research article | Practice day<br>Writing<br>Data analysis  |
| Monday   | Tuesday  | Wednesday   | Thursday   | Friday  |
| Writing 2 Style Paragraph structures Choice of wording and common mistakes Logic   | Communication  Ends and means, Social media intercultural communication  Poster  What makes a good poster                  | Reviewing Peer review Presentation Tips Conference presentation Choosing a career in science          | Presentation   | Practice day<br>Writing   |

**Morning schedule:** unless otherwise announced, lectures start at 9:00 s.t. and end before 12:30. CIP room DE.\_0.135 is reserved for us throughout the course and can be used for exercises.

**Afternoon schedule:** By default, assume that afternoons are reserved for unsupervised homework, i.e. you work in your own time and at your place of choice. However, as 1) you are working in groups, 2) we have computers and software here, it is highly recommended to work at the university if you can manage. **Exceptions** where we have supervised exercises in the afternoon marked in the timetable, notably at the beginning of week 2. Please block the afternoons for those, these practicals cover subjects that are essential for the final paper. Also, you should block Thursday of the first week for your group data collection.

The main course homepage, which contains course material and further links is here <a href="http://florianhartig.github.io/ResearchSkills/">http://florianhartig.github.io/ResearchSkills/</a>. Lecture notes and assignments will be posted on GRIPS, the online system of the university.

All other organizational issues will be explained on the first day of the course. See you there! / Florian Hartig