

MSc Research Skills winter term 2015 – course overview

	Monday 19.10.	Tuesday 20.10.	Wednesday 21.10.	Thursday 22.10.	Friday 23.10.
9.15 till 12.45	<p>9.15 - 10.00 MSc general introduction</p> <p>Science and the scientific method</p> <p>Course overview</p> <p>Finding a question Previous work Novelty</p>	<p>On the shoulder of giants: dealing with literature Searching, Literat. DB, Jabref etc.</p> <p>Morning practicals FH, SH</p>	<p>Question rev.</p> <p>Intro to statistics Regression, NHST</p> <p>Design of Experiments Planning Statistical power</p>	<p>Field day</p>	<p>Scientific Ethics and Culture</p> <p>Organizing your Research</p> <p>Good scientific practice, reproducibility, scripting, archiving,</p>
	Monday 26.10.	Tuesday 27.10.	Wednesday 28.10.	Thursday 29.10.	Friday 30.11.
9.15 till 12.45	<p>Introduction to Graphics in R</p> <p><i>Morning practical: graphics with R</i> SH, FH</p> <p><i>Afternoon: visual data analysis</i> SH</p>	<p>LaTeX</p> <p><i>Morning practical: LaTeX</i> SH, FH</p> <p><i>Afternoon: your document in LaTeX</i> SH</p>	<p>Regression analysis in R</p> <p><i>Afternoon exercise: regression in R</i> SH</p>	<p>Practice day Data analysis</p> <p>FH, SH available for questions</p>	<p>Writing 1</p> <p>Article types, Publication Process</p> <p>Structure of a research article</p> <p>Hand in draft until Sunday</p>
	Monday 2.11.	Tuesday 3.11.	Wednesday 4.11.	Thursday 5.11.	Friday 6.11.
9.15 till 12.45	<p>Writing 2</p> <p>Style</p> <p>Paragraph structures</p> <p>Choice of wording and common mistakes</p> <p>Logic</p>	<p>Communication</p> <p>Ends and means, Social media Intercultural communication</p> <p>Poster</p> <p>What makes a good poster</p>	<p>Reviewing</p> <p>Peer review</p> <p>Presentation 1</p> <p>Presentation types</p> <p>Conference presentation</p>	<p>Presentation 2</p> <p>FH, SH</p> <p>Choosing a career in science</p> <p>Should I do a PhD?</p>	<p>Practice day</p> <p>Finalize research article</p>

FH = Florian Hartig, **SH** = Severin Hauenstein

Morning schedule: lectures start at 9 c.t. (this means: 9:15!) and typically end around 12.45 in Room **X**. CIP rooms **XXX** are reserved for the afternoons. Except for the first day, where you will have a general introduction, so lectures start at 10.00

Afternoon schedule: By default, assume that afternoons are reserved for unsupervised homework, i.e. you can do the exercises 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 3) you have a tutor here at the uni, it is highly recommended to work at the Uni if you can manage with your other appointments. There are some exceptions marked in the timetable where we have supervised exercises, notably at the beginning of week 2. Please block the afternoons for those, these practicals cover subjects that are essential for the final paper.

Some **course material** and links here <http://florianhartig.github.io/ResearchSkills/>

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