

## Statistical Basics for PhD Students, Part I

October 01 - November 12 2024.

The course is held as an online course.

The course is designed as the *Flipped Classroom* and is organized in the following way:

- The first meeting on Tuesday, **October 01**, is dedicated to clarifying the conditions and schedule of the course, as well as a brief introduction to R and R Studio.
- Every week (except the 42<sup>nd</sup> calendar week) on Tuesday at 10 a.m. starting on **October 01**, the lecture notes and exercises on the topic of the current submodule are uploaded to StudIP for **self-study**.
- Until Monday 10 a.m. of next week (the day before the submodule discussion), course participants must submit solutions to the exercises (as R code) and at least 4 questions/suggestions for the **current** submodule discussion.
- The online submodule discussion is held on Tuesday from 1 to approx. 3:30 p.m. The discussion is organized as a **targeted lecture based on the questions/suggestions of the course participants**. Participation in the module discussion is mandatory.
- In the case that questions arise during the homework, a question time in a virtual classroom is offered on Friday from 10 to 11 a.m. The participation in this question time is voluntary.

**Important!** *Before starting the course, it is very recommended to check if the required time for self-study and homework is available.*

**The workload of the course (5 submodules) amounts to 90 h.**

That includes:

**15 h** of attendance (**6** meetings a approx. **2.5 h**)

**55 h** of self-study and homework performance (approx. **11 h** weekly)

**20 h** for the final written presentation

Fulfillment of all course requirements results in **3 Credits**.

**Examination requirements:** Written presentation of the own research project, addressing in particular the choice of appropriate statistical methods depending on data properties and objectives of the study and covering the methods of the 5 submodules attended.

Submodule	Date	Place	Content	Time
<b>S1</b>	<b>01.10.2024</b>	StudIP	Uploading the documents for the <b>1st</b> submodule <b>S1</b>	10:00
	<b>01.10.2024</b>	Virtual classroom	Welcoming and explanation of the course contents and conditions. Introduction to R and R Studio	13:00-15:00
	<b>04.10.2024</b>	Virtual classroom	Question time	10:00-11:00
	<b>07.10.2024</b>	<b>Deadline for homework 1</b>		<b>10:00</b>
	<b>08.10.2024</b>	Virtual classroom	<b>S1-</b> Discussion	13:00-15:30
<b>S2</b>	<b>08.10.2024</b>	StudIP	Uploading the documents for the <b>2nd</b> submodule <b>S2</b>	10:00
	<b>11.10.2024</b>	Virtual classroom	Question time	10:00-11:00
	<b>21.10.2024</b>	<b>Deadline for homework 2</b>		<b>10:00</b>
	<b>22.10.2024</b>	Virtual classroom	<b>S2-</b> Discussion	13:00-15:30
<b>S3</b>	<b>22.10.2024</b>	StudIP	Uploading the documents for the <b>3rd</b> submodule <b>S3</b>	10:00
	<b>25.10.2024</b>	Virtual classroom	Question time	10:00-11:00
	<b>28.10.2024</b>	<b>Deadline for homework 3</b>		<b>10:00</b>
	<b>29.10.2024</b>	Virtual classroom	<b>S3-</b> Discussion	13:00-15:30

Submodule	Date	Place	Content	Time
<b>S4</b>	<b>29.10.2024</b>	StudIP	Uploading the documents for the <b>4th</b> submodule <b>S4</b>	10:00
	<b>01.11.2024</b>	Virtual classroom	Question time	10:00-11:00
	<b>04.11.2024</b>	<b>Deadline for homework 4</b>		<b>10:00</b>
	<b>05.11.2024</b>	Virtual classroom	<b>S4-</b> Discussion	13:00-15:30
<b>S5</b>	<b>05.11.2024</b>	StudIP	Uploading the documents for the <b>5th</b> submodule <b>S5</b>	10:00
	<b>08.11.2024</b>	Virtual classroom	Question time	10:00-11:00
	<b>11.11.2024</b>	<b>Deadline for homework 5</b>		<b>10:00</b>
	<b>12.11.2024</b>	Virtual classroom	<b>S5-</b> Discussion	13:00-15:30