

Module MedPho-F2.2 "Biomedical Statistics" – Summer Semester 2026

Dear students,

we are pleased to be able to offer our Biomedical Statistics course during the summer semester 2026. Enclosed you will find some information on the general structure of the course, requirements to complete the module and attendance rules. You will also find a specific list of all lectures, seminars and R courses (including the content and respective lecturers) as well as provided material in Moodle.

Components of the module are:

- lecture notes (Moodle download)
- seminar script (Moodle download)
- R-course script and exercises (Moodle download)
- 12 lectures (lecture hall Bachstr. 18, building 1, slides before each lecture in Moodle)
- 8 seminars (lecture hall Bachstr. 18, building 1, slides after each seminar in Moodle)
- 8 parts of an exercise collection (before each seminar in Moodle)
- 5 interactive R-courses (PC-Pool IMSID, Bachstr. 18, building 1)
- one Recap and Questions (lecture hall Bachstr. 18, building 1)
- final examination (lecture hall Bachstr. 18, building 1)

Requirements to complete the module are:

- study of lecture notes, seminar topics and R-course topics
- attendance at seminars and R-courses
- self-test on the exercise collection after each seminar

Attendance record:

There is a required attendance of 80 % of the seminars and R-courses, this will be recorded by the lecturer of the seminars / R-courses. ***We explicitly ask for your attendance at all seminars and R-courses, they are the most important tool for the preparation of the exam!*** Furthermore, to assure an optimal and smooth operation, ***we ask you to read and prepare all relevant tasks and papers of the actual seminar as well as R-courses in advance of the seminar.***

You will find a detailed list of all meetings, lectures, content and provided material at the end of this document. We look forward to a hopefully successful course. If you have any questions, please feel free to contact us.

Prof. André Scherag (Andre.Scherag@med.uni-jena.de) – Lectures, Module Manager

Dr. Flavia Remo (Flavia.Remo@med.uni-jena.de) – Lectures, Seminars

Dr. Miriam Kesselmeier (Miriam.Kesselmeier@med.uni-jena.de) – R-Courses

Dr. Karin Schiecke (Karin.Schiecke@med.uni-jena.de) – coordination of teaching IMSID

List of meetings, content and provided material:**1. Lectures and Exam:**

- **time slot: 08:30 – 10:00 am**
- **lecture notes in Moodle**
- **slides of the lectures before each lecture in Moodle**

Date	Room	Course	Lecturer	Content
07.04.26	lect. hall Bachstr. 18, building 1	Biom. 1	Prof. André Scherag Dr. Flavia Remo	Introduction and Descriptive Statistics
09.04.26	lect. hall Bachstr. 18, building 1	Biom. 2	Prof. André Scherag Dr. Flavia Remo	Basic Notions of Epidemiology, Survival Analysis
16.04.26	lect. hall Bachstr. 18, building 1	Biom. 3	Prof. André Scherag Dr. Flavia Remo	Diagnostic Tests
23.04.26	lect. hall Bachstr. 18, building 1	Biom. 4	Prof. André Scherag Dr. Flavia Remo	Probability Distributions
30.04.26	lect. hall Bachstr. 18, building 1	Biom. 5	Prof. André Scherag Dr. Flavia Remo	Parameter Estimation
07.05.26	lect. hall Bachstr. 18, building 1	Biom. 6	Prof. André Scherag Dr. Flavia Remo	Inferential Statistics: Confidence Intervals
21.05.26	lect. hall Bachstr. 18, building 1	Biom. 7	Prof. André Scherag Dr. Flavia Remo	Inferential Statistics: Statistical Tests I
28.05.26	lect. hall Bachstr. 18, building 1	Biom. 8	Prof. André Scherag Dr. Flavia Remo	Inferential Statistics: Statistical Tests II
04.06.26	lect. hall Bachstr. 18, building 1	Biom. 9	Prof. André Scherag Dr. Flavia Remo	Prognosis: Correlation and Linear Regression
11.06.26	lect. hall Bachstr. 18, building 1	Biom. 10	Prof. André Scherag Dr. Flavia Remo	Prognosis: Logistic and Cox Regression
18.06.26	lect. hall Bachstr. 18, building 1	Epidem. 1	Prof. Peter Schlattmann	Epidemiology I: Clinical Trials
25.06.26	lect. hall Bachstr. 18, building 1	Epidem. 2	Prof. Peter Schlattmann	Epidemiology II: Discussion of a Clinical Trial
02.07.26	lect. hall Bachstr. 18, building 1	Recap	Prof. André Scherag Dr. Flavia Remo	Recap and Questions
09.07.26	lect. hall Bachstr. 18, building 1	Exam	Dr. Flavia Remo / Dr. Miriam Kesselmeier	Examination

2. Seminars and R-Courses:

- **time slot: 08:30 – 10:00 am**
- **seminar script, R-script, R-exercises in Moodle**
- **exercise collections before and slides of the seminars after each seminar in Moodle**
- **solutions of R-exercises after each R-Course in Moodle**

Date	Room	Course	Lecturer	Content
14.04.26	lect. hall Bachstr. 18, building 1	Seminar 1	Dr. Flavia Remo	Introduction and Descriptive Statistics
21.04.26	lect. hall Bachstr. 18, building 1	Seminar 2	Dr. Flavia Remo	Clinical Trials and Epidemiology
28.04.26	PC-Pool, Bachstr. 18, building 1	R-Course 1	Dr. Miriam Kesselmeier / M.Sc. Christelle Ngueda	Introduction to R
05.05.26	PC-Pool, Bachstr. 18, building 1	R-Course 2	Dr. Miriam Kesselmeier / M.Sc. Christelle Ngueda	Data Exploration in R
12.05.26	lect. hall Bachstr. 18, building 1	Seminar 3	Dr. Flavia Remo	Diagnostic Tests and Reference Ranges
19.05.26	lect. hall Bachstr. 18, building 1	Seminar 4	Dr. Flavia Remo	Inferential Statistics: Confidence Intervals
26.05.26	lect. hall Bachstr. 18, building 1	Seminar 5	Dr. Flavia Remo	Inferential Statistics: Statistical Tests I
02.06.26	lect. hall Bachstr. 18, building 1	R-Course 3	Dr. Miriam Kesselmeier / M.Sc. Christelle Ngueda	Data Manipulation/ Inference I in R
09.06.26	PC-Pool, Bachstr. 18, building 1	Seminar 6	Dr. Flavia Remo	Inferential Statistics: Statistical Tests II
16.06.26	PC-Pool, Bachstr. 18, building 1	R-Course 4	Dr. Miriam Kesselmeier / M.Sc. Christelle Ngueda	Inference II in R
23.06.26	lect. hall Bachstr. 18, building 1	Seminar 7	Dr. Flavia Remo	Prognosis: Survival Analysis
30.06.26	lect. hall Bachstr. 18, building 1	Seminar 8	Dr. Flavia Remo	Prognosis: Correlation and Regression
07.07.26	PC-Pool, Bachstr. 18, building 1	R-Course 5	Dr. Miriam Kesselmeier / M.Sc. Christelle Ngueda	Advanced Use of R