

Only the german version of the module description as part of the study regulations is legally binding.

Module name	Biometric and statistical principles of data analysis
Module number	INF-25-Ba-PMZ-BSG
Responsible lecturer	Prof. Dr. Ingo Röder ingo.roeder@tu-dresden.de
Qualification objectives	After completing the module, students will have mastered the methodological basics of data analysis, with a specific focus on special features of medical statistics and biometrics. They are able to apply this knowledge in practice.
Content	The module covers the methodological and practical basics of data analysis, especially medical statistics and biometrics. This includes the solid application of basic underlying concepts of probability theory, methods of descriptive statistics and data visualization, knowledge, application and interpretation of the mathematical principles of statistical estimation and testing, correlation analysis and the analysis of event time data. Further content includes the use of appropriate statistical software such as "R" for the statistical evaluation of research results.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the self-study. The language of instruction for the lectures and exercises is German.
Prerequisites for participation	The competences to be acquired in the modules INF-25-Ba-Ma1 Linear Algebra and Analysis and INF-25-Ba-Ma4 Probability Theory and Statistics are assumed.
Applicability	The module is a compulsory module in the Medical Informatics specialization in the Bachelor's degree course in Applied Informatics. The module fulfills the prerequisites for the modules listed under prerequisites for participation.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a written examination lasting 90 minutes. The examination language is German.
Credit points and grades	6 credit points can be earned through the module. The module grade corresponds to the grade of the examination.
Module frequency	The module is offered every winter semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.