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

Module name	**Medical image and biosignal processing**
Module number	INF-25-Ba-PMZ-BBV
Responsible lecturer	Prof. Dr. Stefanie Speidel stefanie.speidel@nct-dresden.de
Qualification objec-Tives	After completing the module, students will have mastered the methodological principles of medical image and biosignal acquisition, image representation, image and biosignal preprocessing, image egmentation and the classification of images and biosignals. They know the main areas of application and the specific challenges for the application of the methods in the medical ext. They will be able to explain and evaluate essential methods of medical image and signal processing and select them according to the circumstances. You will be able to discuss medical image and signal processing issues in the group and present the results accordingly.
Content	The module covers the field of medical image and biosignal processing. This includes the processing chain from image and biosignal acquisition to classification in medical ext. Further content includes imaging, image and signal pre-processing, segmentation and classification, in particular examples from research projects, clinical issues and application examples .
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the self bststudium. The language of instruction for the lectures and exercises is German.
Prerequisites for par-ticipation	The knowledge of mathematics to be acquired in the module INF-25-Ba-Ma1 Linear Algebra and Analysis and the skills to be acquired in the modules INF-25-Ba-PMZ-GMI Fundamentals of Medicine and INF-25-Ba-PMZ-EMI Introduction to Medical Informatics are required.
Applicability	The module is a compulsory module in the Medical Informatics specialization in the Bachelor's degree course in Applied Informatics. The module dul creates 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	5 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 summer semester.
Workload	The total workload is 150 hours.
Module duration	The module comprises one semester.