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

Module name	**Biomedical engineering basics**
Module number	INF-25-Ma-NGR-BMT
Responsible lecturer	Prof. Dr. Hagen Malberg hagen.malberg@tu-dresden.de
Qualification objec-Tives	After completing the module, students have the knowledge, skills and abilities to design systems for measuring physi ological parameters. In addition, they can design automated systems for diagnostic and organ support and are familiar with the most important therapeutic medical technology procedures. hren. They are able to transfer basic biological-physiological principles to technical areas, in particular computer science.
Content	The module covers the basics of biomedical technology for diagnosis and therapy, in particular relevant physi cal, physiological and biochemical laws, basic principles and design of medical devices, diagnostic data acquisition, automated processing of diagnostic signals and information, organ support systems and the design and function of life-support systems.
Teaching and learning methods	The module comprises lectures of 2 SWS, seminars of 1 SWS and self-study. The language of instruction for lectures and seminars is German.
Prerequisites for par-ticipation	No knowledge is required.
Applicability	The module is a compulsory module of the Nic htinformatics Supplement Biomedical Engineering in the main course of the Diplom degree program in Computer Science. In the Master's degree program in Computer Science, the module is a compulsory elective module of the supplement änzung im Open Track, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be chosen in combination with the module INF-25-Ma-NVE-BMT Biomedical Engineering - Clinical Specialization in the Master's degree program Compute r Science n. The module cannot be selected in the Master's degree program in Computer Science if this module or a module with substantially the same content from a degree program in which the admission requirements according to Section 3 of the study regulations have already been met has already been completed. 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 nden. 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 acquired 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.