

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

Module name	Basics of medical decision support systems
Module number	INF-25-Ba-W-PMZ-PMI1
Responsible lecturer	Prof. Dr. Martin Sedlmayr martin.sedlmayr@tu-dresden.de
Qualification objectives	Students are able to describe the fundamental problems of medical data processing, know the basics of medical documentation systems and the properties of the medical data model OMOP. Based on given data, they can implement rules for recognizing special patient groups or environmental factors using certain parameters and are able to transfer processed data into a presentation suitable for medical staff.
Content	The module covers basic medical and technical aspects based on a clinical clinical picture, such as the collection and coding of medical information, processing in clinical information systems, the requirements for clinical software as a medical product and the processes and tools for data transformation. Further content includes an introduction to topics that focus on clinical or medical-scientific issues and their processing with the help of information technology methods. The module also includes the transfer of anonymized data into a standardized medical data model (OMOP), the development and implementation of a digital decision support system based on the presented rules, which is intuitive to use and easy to understand, as well as the consideration of legal framework conditions, for example regulations for medical devices, especially with regard to minimizing risks.
Teaching and learning methods	The module comprises practical courses of 4 SWS and self-study. The language of instruction for the practicals is German.
Prerequisites for participation	The competencies to be acquired in the module INF-25-Ba-PMZ-EMI Introduction to Medical Informatics are assumed.
Applicability	The module is a compulsory elective module in the Bachelor's degree program in Applied Computer Science in the specialization Medical Informatics, which must be selected in accordance with the annex to the examination regulations. The module 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 complex course of 80 hours. 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 semester.
Workload	The total workload is 180 hours.

Module duration	The module comprises one semester.
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