Module name	**Practical Basics of Biomedical Engineering**
Module number	EuI-BMT-C-PGBMT
Lecturer in charge	Prof. Dr.-Ing. habil. Hagen Malberg lehre.ibmt@tu-dresden.de
Objectives	After completing the module, students have in-depth basic knowledge of anatomy and physiology and are familiar with the medical technology systems most commonly used in patient care. From their own practical work and demonstrations they are familiar with the functional principles of medical technology procedures in various clinical areas.
Contents	The contents of the module are the basics of physiological measurement technology and in-depth physiological-anatomical basic knowledge, in particular blood pressure, cardiac excitation, cardiac sound and circulation, evoked potentials, ergometric stress, respiration and respiratory sinus arrhythmia, muscle stimulation and fatigue, reflexes and reaction tests as well as medical terminology, in particular terms and processes in the body and during treatment and introduction to the history of medicine and medical technology.
Modes of teaching and learning	1 hour per week seminars, 2 hours per week practical lab course and self-study.
Prerequisites	Knowledge of mathematics, physics, chemistry and biology at basic A-level is expected. In addition, the knowledge acquired in the module Fundamentals of Biomedical Engineering is a prerequisite.
Usability	The module is a compulsory module in the basic studies of the degree programme Biomedical Engineering. It creates the prerequisites for the modules that list that module in the "Prerequisites" field.
Requirements for the award of credit points	The credit points are awarded when the module assessment is passed. The module assessment consists of a portfolio of 60 hours.
Credit points and grades	4 credit points can be obtained by the module. The module grade is the grade of the examination.
Frequency	The module is offered every summer semester.
Workload	The total effort is 120 hours.
Duration	The module takes one semester.