Module name	**Biochemical Analytical Measurement Technology**
Module number	EuI-BMT-C-BCAMT
Lecturer in charge	Prof. Dr.-Ing. habil. Uwe Marschner uwe.marschner@tu-dresden.de
Objectives	After completing the module, students have knowledge, skills and abilities in cell and molecular biology as well as in clinical laboratory and analytical measurement technology.
Contents	The module covers all essential topics in which living and non-living substances interact through their biochemical properties. Particular emphasis is placed on cell and molecular biology fundamentals, including nucleic acids, amino acids, proteins, vitamins, enzymes, basic cellular processes and their analysis. Special applications are dealt with in particular in clinical laboratory and analytical measurement technology, which are used in routine clinical practice.
Modes of teaching and learning	3 hours per week lectures, 1 hour per week practical lab courses and self-study.
Prerequisites	The knowledge acquired in the modules **Physico-chemical Fundamentals of Biomedical Engineering** and **Fundamentals of Biomedical Engineering** are required.
Usability	The module is a compulsory module in the main 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 written exam of 120 minutes and a portfolio of 50 hours. Both exam and portfolio have to be passed.
Credit points and grades	5 credit points can be obtained by the module. The module grade is the weighted mean of the grades of the assessments. The written exam is weighted by 3/4 and the portfolio is weighted by 1/4.
Frequency	The module is offered every winter semester.
Workload	The total effort is 150 hours.
Duration	The module takes one semester.