

Module name	Computer Aided Design (CAD)
Module number	Eul-BMT-C-CAD
Lecturer in charge	Prof. Dr.-Ing. habil. Jens Lienig jens.lienig@tu-dresden.de
Objectives	After completing the module, students will be able to create standardized design documentation for medical assemblies and electronic wiring carriers using modern CAD systems. They know the methodology of computer-aided mechanical and electronic design based on commercial design tools.
Contents	The content of the module covers both computer-aided computer-aided design in both mechanics and electronics. The focus in the CAD design of mechanical components is on the components on the methodology for creating CAD models, modeling assemblies, parametric and adaptive design as well as motion and tolerance simulation. The computer-aided design of electronic wiring carriers includes design steps, library concepts, interfaces as well as objectives and constraints in layout design.
Modes of teaching and learning	2 hours per week lectures, 2 hours per week exercises, 1 hour per week practical lab course and self-study.
Prerequisites	The knowledge acquired in the module Electronic Systems Design is 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 60 minutes and a portfolio of 50 hours. Both exam and portfolio have to be passed.
Credit points and grades	6 credit points can be obtained by the module. The module grade is the unweighted mean of the grades of the assessments.
Frequency	The module is offered every summer semester.
Workload	The total effort is 180 hours.
Duration	The module takes one semester.