

Module Name	Microsystems Technology and Sensors
Module Number	Eul-ET-C-MSTSe
Responsible Lecturer	Prof. Dr.-Ing. Andreas Richter andreas.richter7@tu-dresden.de
Qualification Objectives	After completing the module, students master microsystems, microactuators, microsensors, energy sources, and microactuator systems, including microrobots. Furthermore, they have a command of the fundamentals of sensorics, including system-based sensor models and sensors for measuring mechanical quantities.
Contents	The module covers the fundamentals of microsystems technology and sensorics, specific microtechnologies for the production of complex, miniaturized components and systems, as well as their sensory, actuator, and robotic applications.
Teaching and Learning Forms	3 hours per week of lectures, 1 hour per week of exercises, and self-study.
Prerequisites for Participation	The competencies to be acquired in the modules Materials as well as Microelectronic Technologies and Components are required.
Usability	The module is a compulsory module of the main study program in the field of Microelectronics in the diploma program Electrical Engineering. It creates the prerequisites for the modules that list this module in the field "Prerequisites for Participation."
Prerequisites for the Award of Credit Points	Credit points are awarded when the module examination is passed. The module examination consists of a written exam lasting 90 minutes.
Credit Points and Grades	5 credit points can be earned through the module. The module grade corresponds to the grade of the examination performance.
Frequency of the Module	The module is offered every summer semester.
Workload	The total workload is 150 hours.
Duration of the Module	The module lasts one semester.