

Module Name	Automobile Engineering – Development, Design and Validation
Module Number	Eul-MT-E-A01G3
Responsible Lecturer	Prof. Dr.-Ing. Günter Prokop guenther.prokop@tu-dresden.de
Qualification Objectives	After completing the module, students are able to map and implement specific component requirements derived from the overall vehicle properties to be realized into technical solutions. In addition to technical aspects, they are familiar with the essential process-related, organizational, and methodological interrelations in vehicle development.
Contents	The module covers the functional design of vehicles and their components, particularly development methods, functional target derivation, concept development, and validation in the vehicle development process. Additionally, expert lectures from the industry are integrated.
Teaching and Learning Forms	2 hours per week of lectures, 2 hours per week of exercises, and self-study.
Prerequisites for Participation	The competencies to be acquired in the modules Materials and Technical Mechanics, Numerical Methods, System Dynamics of Mechanical Structures, Measurement Technology, and Basics of Electrical Engineering are required.
Usability	The module is an elective module from the elective area "Methods and Applications" according to § 6 paragraph 3 SO and § 33 paragraph 3 PO of the main study program in the diploma program Mechatronics. 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 180 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.