Module Name	Automobile Engineering – Full Vehicle Functions
Module Number	EuI-MT-E-A01G2
Responsible Lecturer	Prof. Dr.-Ing. Günter Prokop guenther.prokop@tu-dresden.de
Qualification Objectives	After completing the module, students are able to theoretically and practically comprehend, quantify, evaluate, and design the essential overall vehicle properties in their functional interrelations.
Contents	The module covers fundamental knowledge about the interaction of components and subsystems to achieve overall vehicle properties. This includes extended aspects of driving dynamics, operational durability, driving performance and fuel consumption, as well as vehicle safety and driver assistance systems and their interdependencies.
Teaching and Learning Forms	2 hours per week of lectures, 1 hour per week of exercises, 2 hours per week of practical lab courses, and self-study.
Prerequisites for Participation	The competencies to be acquired in the modules Materials, 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 210 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.