

Module name	<b>Multidimensional Differential and Integral Calculus</b>
Module number	Eul-ET-C-Ma2, Eul-BMT-C-Ma2, Eul-IST-C-Ma2, Eul-MT-C-Ma2, Eul-RES-C-Ma2
Lecturer in charge	Prof. PD Dr. Sebastian Franz sebastian.franz@tu-dresden.de
Objectives	After completing the module, students have knowledge of differentiation and integration of functions with one and several variables, analytical solutions of differential equations and systems of differential equations as well as vector analysis.
Contents	The contents of the module are analysis of real functions of several variables, vector analysis, function series, differential equations and Taylor series.
Modes of teaching and learning	4 hours per week lectures, 4 hours per week exercises and self-study.
Prerequisites	The skills to be acquired in the modules <b>Introduction to Analysis and Algebra</b> are required.
Usability	The module is a compulsory module in the basic studies of the degree programmes Electrical Engineering, Biomedical Engineering, Information Systems Engineering, Mechatronics and Renewable Energy Systems. 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 150 minutes.
Credit points and grades	9 credit points can be obtained by the module. The module grade is the grade of the examination.
Frequency	The module is offered every summer semester.
Workload	The total effort is 270 hours.
Duration	The module takes one semester.