

Module Name	Traffic Theory
Module Number	Eul-ET-E-NRVTh, Eul-IST-E-NRVTh
Responsible Lecturer	Dr.-Ing. Rico Radeke rico.radeke@tu-dresden.de
Qualification Objectives	After completing the module, students possess in-depth knowledge of modeling and performance evaluation of integrated communication networks using traffic theory approaches. They are familiar with methods of investigation through mathematical analysis. Students are capable of correctly modeling, analyzing, and evaluating the performance of systems encountered in practice.
Contents	The module covers methods for mathematical modeling, analysis, and performance evaluation of communication networks.
Teaching and Learning Forms	3 hours per week of lectures, 1 hour per week of exercises, and self-study.
Prerequisites for Participation	In the diploma program Electrical Engineering, the competencies to be acquired in the modules Communication Engineering and Communication Networks are required. In the diploma program Information Systems Engineering, the competencies to be acquired in the module Communication Engineering are required.
Usability	The module is an elective module in the elective area "Competence Deepening" according to § 6 paragraph 3 of the study regulations and § 33 paragraph 4 of the examination regulations of the main study program in the field of Information Technology in the diploma program Electrical Engineering. Additionally, it is an elective module in the elective area "Competence Deepening" according to § 6 paragraph 3 of the study regulations and § 33 paragraph 3 of the examination regulations of the main study program in the field of Communication Technology in the diploma program Information Systems Engineering. The module creates the prerequisites for the modules that list it under "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 120 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 winter semester.
Workload	The total workload is 150 hours.
Duration of the Module	The module lasts one semester.