**Engineering Mathematics (4 ECTS)**

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Course description:

The course covers the following topics: Introduction of a basic concepts and operations of mathematical logic, relations, Boolean algebra. Introduction of algebraic structures, groups, rings, fields and Vector spaces. Introduction of basic concepts of the theory of numerous and functional series. Introduction of series: Maclaurin*,*Taylor and Fourier. Introduction of the functions of two independent variables, their derivatives and extremes. Getting acquainted with multiple integrals.

Lecture outcomes:

By completing this course students will be able to recognize the properties and the type of a relation, to apply Boolean algebra, to recognize the properties of algebraic structures, to examine the convergence of numerous and functional series and to develop in Furier's series, to determine derivatives and extremes of functions of two independent variables, and to calculate multiple integrals.