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Title Code 1010324221010340331 **Mathematics** Field Year / Semester **Electrotechnics** 1/2 Specialty Course core Number of credits Hours 6 Lectures: 3 Classes: **26** Laboratory: -Projects / seminars: -Language polish

Lecturer:

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Faculty:

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Status of the course in the study program:

Obligatory course of the study programs for the branch ?Electrotechnics?.

Assumptions and objectives of the course:

Knowledge of theory and methods of differential and integral calculus of functions of several variables, analytic geometry and functional series.

Contents of the course (course description):

The define integral: definition, properties and applications.

Analytic geometry: vectors, straight line, plane, sufraces of scond order.

Differential calculus of functions of several variables: function of n-variables, limits and continuity, partial derivatives, differentials, local and absolute extrema.

Integral calculus: multiple integrals ? definitions, properties, applications. Line integrals. Numerical and functional series, Taylor and Fourier series.

Introductory courses and the required pre-knowledge:

Differential and integral calculus of functions of one variable.

Courses form and teaching methods:

Lectures and classes.

Form and terms of complete the course - requirements and assessment methods:

Written tests, examination

Basic Bibliography:

Additional Bibliography: