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Title Mathematics	Code 1010321221010340129
Field	Year / Semester
Electrotechnics	1/2
Specialty	Course
•	core
Hours	Number of credits
Lectures: 3 Classes: 2 Laboratory: - Projects / seminars:	- 6
	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, differential equations and Taylor and Fourier series.

## Contents of the course (course description):

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, conversion of variables. Line integrals. Functional series, Taylor and Fourier series.

Differential equations of first and second order - methods of solving.

Basic problems of theory of probability.

# 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: