

Title Numerical Analysis	Code 1010321221010340130
Field Electrotechnics	Year / Semester 1 / 2
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 4
	Language polish

Lecturer:

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Faculty:

Faculty of Electrical Engineering
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Status of the course in the study program:

Obligatory subject for the students of Electrotechnics, Electrical Department.

Assumptions and objectives of the course:

Acquaintance with the most important theoretical and practical problems of the Numerical Analysis and its applications.

Contents of the course (course description):

- ? The Role of Numerical Analysis in Applied Mathematics.
- ? Analysis of Algorithms (General Rules).
- ? Polynomial Interpolation and Applications.
- ? Elements of the Spline Functions Theory.
- ? Numerical Integration and Differentiation,
- ? Initial-Value Problems for Ordinary Differential Equations.
- ? Complex Matrices; Fast Fourier Transform.
- ? Trigonometric Interpolation and Least Squares Approximation.

Introductory courses and the required pre-knowledge:

Calculus and Basic Linear Algebra. Basic programming skills

Courses form and teaching methods:

Lectures and class exercises.

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

Oral examination and evaluation of student software projects.

Basic Bibliography:

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Additional Bibliography:

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