Title **Mathematics (Matematyka)**	Code **1010401111010340601**
Field **EDUCATION IN TECHNOLOGY AND INFORMATICS**	Year / Semester **1 / 1**
Specialty **-**	Course **core**
Hours Lectures: **2** Classes: **2** Laboratory: **-** Projects / seminars: **-**	Number of credits **6**
	Language **polish**

Lecturer:

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Status of the course in the study program:

Core course of the study for Education in Technology and Informatics, Faculty of Technical Physics.

Assumptions and objectives of the course:

Knowledge improvement in basic math concepts and making use of some math results in solving problems.

Contents of the course (course description):

Mathematical logic. Complex numbers. Matrix algebra, determinants. Matrix multiplication. Inverse matrix. Leibniz formula. Systems of linear equations. Sarrus' scheme. Linear system of equations. Cramer's rule. Gaussian elimination. Sequences (e number). The derivative. The de L?Hospital Rule. Limits of the functions. Asymptotes. Monotonicity and concavity. Antiderivatives. Arbitrary constant of integration. Linearity of integration. Integration by substitution. Integration by parts.

Introductory courses and the required pre-knowledge:

Basic math knowledge on high school level.

Courses form and teaching methods:

Lectures, exercises.

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

Tests, oral examination.

Basic Bibliography:

1. M.Gewert, Z.Skoczylas, Analiza matematyczna 1. Definicje, twierdzenia, wzory. Oficyna Wydawnicza GiS, Wrocław 2001.
2. M.Gewert, Z.Skoczylas, Analiza matematyczna 1. Przykłady i zadania. Oficyna Wydawnicza GiS, Wrocław 2001.
3. .Jurewicz, Z.Skoczylas, Algebra liniowa 1. Definicje, twierdzenia, wzory. Oficyna Wydawnicza GiS, Wrocław 2001.
4. T.Jurewicz, Z.Skoczylas, Algebra liniowa 1. Przykłady i zadania. Oficyna Wydawnicza GiS, Wrocław 2001.

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Additional Bibliography:
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