Title	Code
Linear algebra with analytic geometry	**1010341511010340704**
Field: **Mathematics**	Year / Semester: **1 / 1**
Specialty: **-**	Course: **core**
Hours: Lectures: **2** Classes: **2** Laboratory: **-** Projects / seminars: **-**	Number of credits: **9**
	Language: **polish**

Lecturer:

dr hab. inż. Paweł Kolwicz

Faculty:

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

Obligatory

Assumptions and objectives of the course:

Solving linear equations systems and its interpretation by means of vectors and linear transformations, computing of determinants, finding matrices of linear transformations in different bases, computing characteristic values (characteristic vectors) of linear transformations.

Contents of the course (course description):

Number and abstract fields. Linear spaces, basis, dimension. Linear transformations, characteristic value (characteristic vector) of linear transformation. Matrices and determinants, linear equations systems.

Vector algebra: operations on vectors, scalar product and vector product. Line and plane in the space. Basic numerical algorithms of linear algebra.

Introductory courses and the required pre-knowledge:

Basic knowledge from mathematics from the secondary school.

Courses form and teaching methods:

Lectures, exercises (traditional presentation-blackboard and chalk).

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

Written classes, written tests, verbal exams.

Basic Bibliography:

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Additional Bibliography:

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