Title:	**Linear Algebra**
Lecture hours:	45
Study period: (summer/winter)	winter or summer
Number of credits:	6
Assessment methods:	written test
Language of instruction:	English
Prerequisites:	basics of Calculus
Course content:	complex numbers; matrices; determinants; systems of linear equations; Gauss' method of solving systems of linear equations; linear spaces; basis and dimension of linear space; linear mappings; kernel and image of linear mapping; values and eigenvectors of linear mappings
Learning outcomes:	By the end of the course students should: • know complex numbers and its arithmetic; • make actions on matrices and should be able to use matrices to solve systems of linear equations; • know what a linear space is and how its basis and dimension are determined; • be able to check if a given mapping is linear; if the answer is „yes" – should be able to determine its kernel and image; • be able to calculate eigenvalues and eigenvectors of linear mappings
Name of lecturer:	Dr Halina Wiśniewska, Dr Waldemar Sieg
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Literature:	1. L. Hogben, „Handbook of linear algebra", Iowa State University, Ames USA 2. S. Lang, „Introduction to Linear Algebra", Springer-Verlag, New York (1986) 3. J. Hefferon, „Linear Algebra", Saint Michael's College Colchester, Vermont USA, 2001