Overview Linear Algebra for Mathematical Physics

Module title

Module coordinator
Dean of Studies Mathematik (Mathematics)

Module offered by
Institute of Mathematics

ECTS
12

Method of grading
numerical grade

Only after succ. compl. of module(s)
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Duration
1 semester

Module level
undergraduate

Other prerequisites
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Contents
Basic notions and structures; vector spaces, linear maps and systems of linear equations; theory of matrices and determinants; eigenvalue theory; bilinear forms and Euclidean/unitary vector spaces; diagonalisability and Jordan normal form.

Intended learning outcomes
The student knows and masters the essential methods and proof techniques of linear algebra and is able to apply them independently. He/She has an overview over the fundamental notions and methods of linear algebra, knows about their algebraic and geometric background, is able to relate them to each other and can present them adequately in written and oral form.

Courses
(V (4) + Ü (2))

Method of assessment
oral examination of one candidate each (20 to 40 minutes)

Assessment will have reference to the contents of modules 10-M-LNA-1 and 10-M-LNP-Ü.

Language of assessment: German and/or English

Allocation of places
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Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Bachelor’s degree (1 major) Mathematical Physics (2015)
Bachelor’s degree (1 major) Mathematical Physics (2016)