Module title: Overview Linear Algebra for Teaching Degree (German Gymnasium)

Abbreviation: 10-M-LNL-Ü-191-m01

Module coordinator: Dean of Studies Mathematik (Mathematics)

Module offered by: Institute of Mathematics

ECTS: 13

Method of grading: numerical grade

Duration: 2 semester

Module level: --

Other prerequisites: --

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:

(type, number of weekly contact hours, language — if other than German)

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Method of assessment:
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

oral examination of one candidate each (20 to 40 minutes)
Language of assessment: German and/or English
Assessment will have reference to the contents of modules 10-M-LNL1 und 10-M-LNL2

Allocation of places:
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Additional information:
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Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 73 I Nr. 2

Module appears in:
First state examination for the teaching degree Gymnasium Mathematics (2019)