Module title | Abbreviation
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Applied Algebra for Teaching Degree (German Gymnasium) | 10-M-AALL-191-m01

Module coordinator | Module offered by
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Dean of Studies Mathematik (Mathematics) | Institute of Mathematics

ECTS | Method of grading | Only after succ. compl. of module(s)
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5 | (not) successfully completed | --

Duration | Module level | Other prerequisites
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1 semester | -- | --

Contents

Topics in field theory (particularly algebraic field extensions, ruler and compass constructions, basics in Galois theory, solvability of equations, cyclotomic fields, finite fields).

Applications of algebra and number theory (e.g., coding theory, cryptography, computer algebra).

Intended learning outcomes

The student knows and masters the essential methods and basic notions in algebra and its applications. He/She is acquainted with the central concepts in this field, and is able to apply the fundamental proof methods independently.

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

Ü (2)

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

a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable for bonus

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 (2 LP), § 73 I Nr. 5 (3 LP)

Module appears in

First state examination for the teaching degree Gymnasium Mathematics (2019)