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| Module title | | Abbreviation |
| Field Arithmetics | | 10-M=VKAR-161-m01 |
| Module coordinator | | Module offered by |
| Dean of Studies Mathematik (Mathematics) | | Institute of Mathematics |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 10 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | graduate | -- |
| Contents | | |
| Combination of Galois theory, group theory and the theory of function fields with the aim of application in number theory, e. g. topics around Hilbert's irreducibility theorem, permutation polynomials (e. g. Calitz-Wan-conjecture) and the inverse problem in Galois theory. | | |
| Intended learning outcomes | | |
| The student masters advanced algebraic concepts and methods. He/She gains the ability to work on contemporary research questions in algebra and can apply his/her skills to complex problems. | | |
| Courses (type, number of weekly contact hours, language – if other than German) | | |
| V (4) + Ü (2) Module taught in: German and/or English | | |
| 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 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate) Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: German or English creditable for bonus | | |
| Allocation of places | | |
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| Additional information | | |
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| Workload | | |
| 300 h | | |
| Teaching cycle | | |
| -- | | |
| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
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| Module appears in | | |
| Master's degree (1 major) Mathematics (2016) Master's degree (1 major) Mathematical Physics (2016) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016) Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016) Master's degree (1 major) Mathematics (2019) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) Master's degree (1 major) Mathematical Physics (2020) Master's degree (1 major) Computational Mathematics (2022) Master's degree (1 major) Mathematics (2022) | | |

Master's degree (1 major) Mathematical Physics (2022)
exchange program Mathematics (2023)
Master's degree (1 major) Computational Mathematics (2024)
Master's degree (1 major) Mathematics (2024)