### Module title

Didactics of Mathematics (German Hauptschule/Realschule)

### Abbreviation

10-M-DGHR-092-m01

### Module coordinator

Dean of Studies Mathematik (Mathematics)

### Module offered by

Institute of Mathematics

### ECTS

10

### Method of grading

numerical grade

### Duration

3 semester

### Module level

undergraduate

### Other prerequisites

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### Contents

Discussion of basic topics in teaching mathematics in Hauptschule and Realschule taking into account didactic aspects as well as possibilities of implementation in the classroom, also including modern technologies.

### Intended learning outcomes

The student is acquainted with mathematical ways of thinking and working techniques, and is able to take into account the students' perception of mathematical topics. He/She knows important aspects of planning and analysing teaching of mathematics, masters different strategies for teaching and learning und can assess them.

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

This module has 4 components; information on courses listed separately for each component.

- **10-M-DGHR-P-092**: M (no information on language and number of weekly contact hours available)
- **10-M-DGHR-1-092**, and **10-M-DGHR-2-092**: V + Ü (no information on language and number of weekly contact hours available)
- **10-M-DGHR-3-092**: V (no information on language and number of weekly contact hours available)

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

This module has the following 4 assessment components. Unless stated otherwise, students must pass all of these assessment components to pass the module as a whole.

**Assessment in module component 10-M-DGHR-P-092**: Didaktik der Mathematik - Prüfung (Haupt- und Realschule) (Assessment Mathematics Didactics, Hauptschule and Realschule)

- 1 ECTS credit, numerical grading
- written examination (approx. 120 minutes); if announced by the lecturer, the written examination may be replaced by an oral examination of one candidate each (approx. 30 minutes) or an oral examination in groups (groups of 2: approx. 45 minutes, groups of 3: approx. 60 minutes) or by a written and/or multi-media portfolio (as announced).
- Only after successful completion of module components: Module component 10-M-DGHR-P can only be taken by students who successfully completed the three module components 10-M-DGHR-1 and 10-M-DGHR-2 and 10-M-DGHR-3.

**Assessment in module component 10-M-DGHR-1-092**: Didaktik der Mathematik - Algebra (Haupt- und Realschule) (Mathematics Didactics - Algebra, Hauptschule and Realschule), and in module component 10-M-DGHR-2-092: Didaktik der Mathematik - Geometrie (Haupt- und Realschule) (Mathematics Didactics - Geometry, Hauptschule and Realschule):

- 4 ECTS credits, pass / fail
- exercises: at the beginning of the course, the lecturer will specify the type and scope of exercises to be successfully completed over the course of the semester for the module component to be considered successfully completed.

**Assessment in module component 10-M-DGHR-3-092**: Didaktik der Mathematik - Stochastik (Haupt- und Realschule) (Mathematics Didactics - Stochastics, Hauptschule and Realschule)

- 1 ECTS credit, pass / fail
- exercises: at the beginning of the course, the lecturer will specify the type and scope of exercises to be successfully completed over the course of the semester for the module component to be considered successfully completed.
Module description

Allocation of places

Additional information

Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 51 (1) 4. Mathematik Didaktik
§ 51 (1) 4. Mathematik Fachdidaktik

Module appears in
First state examination for the teaching degree Hauptschule Mathematics (2009)
First state examination for the teaching degree Realschule Mathematics (2009)
First state examination for the teaching degree Mittelschule Mathematics (2013)