

| Module title  |  |               |                     |                          | Abbreviation |
|---|--|---------------|---------------------|--------------------------|--------------|
| Didactics of Mathematics: Algebra and Analysis (German Gymnasium) 10-M-DGY1-232-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) |               |                     |                          |              |
| 6   | nume   | rical grade   |                     |                          |              |
| Duration  |  | Module level  | Other prerequisites |                          |              |
| 2 semester  |  | undergraduate |                     |                          |              |
| Contents  |  |               |                     |                          |              |
| Discussion of advanced topics in mathematics didactics for Gymnasium using the examples of algebra (Se-<br>kundarstufe I) and analysis (Sekundarstufe II) as well as discussion of possibilities of implementation in the<br>classroom, also including modern technologies.   |  |               |                     |                          |              |
| Intended learning outcomes  |  |               |                     |                          |              |
| The student is acquainted with mathematical ways of thinking and working techniques (in particular in the fields of algebra in Sekundarstufe I and analysis in sekundarstufe II) and is able to take into account the students'perception of mathematical topics, He/She knows different 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)   |  |               |                     |                          |              |
| $V(2) + \ddot{U}(2) + V(2) + \ddot{U}(2)$   |  |               |                     |                          |              |
| <b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)  |  |               |                     |                          |              |
| written examination (approx. 60 minutes) and written exercises (approx. 10 exercise sheets with approx. 3 exer-<br>cises each from the didactics of algebra and approx. 10 exercise sheets with approx. 3 exercises each from the<br>didactics of analysis)<br>Language of assessment: German and/or English<br>creditable for bonus  |  |               |                     |                          |              |
| Allocation of places  |  |               |                     |                          |              |
|   |  |               |                     |                          |              |
| Additional information  |  |               |                     |                          |              |
|   |  |               |                     |                          |              |
| Workload  |  |               |                     |                          |              |
| 180 h   |  |               |                     |                          |              |
| Teaching cycle  |  |               |                     |                          |              |
|   |  |               |                     |                          |              |
| <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)  |  |               |                     |                          |              |
| § 73   Nr. 6  |  |               |                     |                          |              |
| Module appears in   |  |               |                     |                          |              |
| First state examination for the teaching degree Gymnasium Mathematics (2023)  |  |               |                     |                          |              |
|   |  |               |                     |                          |              |

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