### Module title

Ordinary Differential Equations for Teaching Degree (German Gymnasium)

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<th>Abbreviation</th>
<th>10-M-DGLL-191-m01</th>
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### Module coordinator

Dean of Studies Mathematik (Mathematics)

### Module offered by

Institute of Mathematics

### ECTS

5

### Method of grading

Only after succ. compl. of module(s)

### Duration

1 semester

### Module level

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### Other prerequisites

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### Contents

Existence and uniqueness theorem; continuous dependence of solutions on initial values, systems of linear differential equations, matrix exponential series, linear differential equations of higher order.

### Intended learning outcomes

The student is acquainted with the fundamental concepts and methods of the theory of ordinary differential equations. He/she is able to apply these methods to practical problems.

### Courses

(upper bracket, 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 1 (examination regulations for teaching-degree programmes)

§ 73 I Nr. 1

### Module appears in

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