### Module title
Analytic Geometry

### Abbreviation
10-M-ANGE-152-m01

### Module coordinator
Dean of Studies Mathematik (Mathematics)

### Module offered by
Institute of Mathematics

### ECTS
6

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
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### Contents
Applications of linear algebra to analytic geometry: quadrics, characterisation of affine maps and isometries, discussion of Euclidean spaces (scalar products, arcs, orthonormal bases).

### Intended learning outcomes
The student is acquainted with advanced methods, concepts and results in linear algebra and analytic geometry. He/She is able to comprehend the central proof methods, can perform easy mathematical arguments and present them orally and in written form. He/She can analyse basic mathematical problems and employ methods of linear algebra and analytic geometry to solve them.

### Courses
(type, number of weekly contact hours, language — if other than German)
V (4) + 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)
written examination (approx. 60 to 90 minutes).
If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).

### Allocation of places
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### Additional information
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### Referred to in LPO I
(examination regulations for teaching-degree programmes)
§ 51 I Nr. 2

### Module appears in
- First state examination for the teaching degree Grundschule Mathematics (2015)
- First state examination for the teaching degree Realschule Mathematics (2015)
- First state examination for the teaching degree Mittelschule Mathematics (2015)