### Module title
Non-linear Analysis

### Abbreviation
10-M=VNAN-161-m01

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

### Module offered by
Institute of Mathematics

### ECTS
5

### Method of grading
Numerical grade

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

### Module level
Graduate

### Other prerequisites
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### Contents
Methods in nonlinear analysis (e.g. topological methods, monotony and variational methods) with applications.

### Intended learning outcomes
The student is acquainted with the concepts of non-linear analysis, can compare them and assess their applicability on practical problems.

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

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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. 60 to 90 minutes, usually chosen) or b) oral examination of one candidate each (approx. 15 minutes) or c) oral examination in groups (groups of 2, approx. 10 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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### 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) Economathematics (2016)
- Master's degree (1 major) Mathematical Physics (2016)
- Master's degree (1 major) Computational Mathematics (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) Computational Mathematics (2019)
- Master's degree (1 major) Mathematics (2019)