### Module title
Advanced Topics in Computational Complexity

### Abbreviation
10-I=KT2-122-m01

### Module coordinator
Dean of Studies Informatik (Computer Science)

### Module offered by
Institute of Computer Science

### 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
Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).

## Contents
Properties of NP-complete sets, autoreducibility, interactive proof systems, polynomial time hierarchy, complexity of probabilistic algorithms.

## Intended learning outcomes
The students possess a fundamental and applicable knowledge in the areas of properties of NP-complete sets, autoreducibility, interactive proof systems, polynomial time hierarchies, complexity of probabilistic algorithms.

## Courses
**(V + Ü)** (no information on SWS (weekly contact hours) and course language available)

## Method of assessment
**written examination** (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

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

## Module appears in
Master's degree (1 major) Mathematics (2012)
First state examination for the teaching degree Gymnasium Computer Science (2009)

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