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| Module title | | Abbreviation |
| Theoretical informatics | | 10-I-TI-102-m01 |
| Module coordinator | | Module offered by |
| Dean of Studies Informatik (Computer Science) | | Institute of Computer Science |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 10 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | undergraduate | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |
| Contents | | |
| Computability, decidability, countability, complexity of calculations, Boolean functions and circuits, finite automata and regular sets, generative grammars, context-free languages, context-sensitive languages. | | |
| Intended learning outcomes | | |
| The students possess fundamental and applicable knowledge in the area of computability, decidability, countability, complexity of calculations, Boolean functions and circuits, finite automata and regular sets, generative grammars, context free languages, context sensitive languages. | | |
| Courses (type, number of weekly contact hours, language – if other than German) | | |
| V + Ü (no information on SWS (weekly contact hours) and course language available) | | |
| 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. 80 to 90 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. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. | | |
| Allocation of places | | |
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| Additional information | | |
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| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
| § 49 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen § 69 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen | | |
| Module appears in | | |
| Bachelor' degree (1 major) Computer Science (2010) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2013) First state examination for the teaching degree Realschule Computer Science (2012) First state examination for the teaching degree Gymnasium Computer Science (2009) | | |