**Module description**

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Visualization of Graphs</td>
<td>10-I=VG-102-m01</td>
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<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>holder of the Chair of Computer Science I</td>
<td>Institute of Computer Science</td>
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<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Other prerequisites</th>
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<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>Only after succ. compl. of module(s)</td>
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<tr>
<th>Duration</th>
<th>Module level</th>
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<tr>
<td>1 semester</td>
<td>graduate</td>
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**Contents**

This course covers the most important algorithms to draw graphs. Methods from the course *Algorithmische Graphentheorie (Algorithmic Graph Theory)* such as divide and conquer, flow networks, integer programming and the planar separator theorem will be used. We will become familiar with measures of quality of a graph drawing as well as algorithms to optimise these measures.

**Intended learning outcomes**

The participants get an overview of graph visualisation and become familiar with typical tools. They consolidate their knowledge about the modelling and solving of problems with the help of graphs and graph algorithms.

**Courses**

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<th>V + Ü (no information on SWS (weekly contact hours) and course language available)</th>
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**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)

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**Module appears in**

- Master’s degree (1 major) Computer Science (2010)
- Master’s degree (1 major) Mathematics (2010)
- First state examination for the teaching degree Gymnasium Computer Science (2009)