Visualization of Graphs

10-I=VG-102-m01

Module title

Visualization of Graphs

Module coordinator

holder of the Chair of Computer Science I

Module offered by

Institute of Computer Science

ECTS

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Method of grading

numerical grade

Duration

1 semester

Module level

graduate

Other prerequisites

Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e.g. completion of exercises).

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

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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Workload

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Teaching cycle

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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)