# Module description

## Decision Support Systems

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td><strong>Decision Support Systems</strong></td>
<td>12-M-DSS-161-m01</td>
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</tbody>
</table>

## Module coordinator

holder of the Chair of Information Systems Engineering

## Module offered by

Faculty of Business Management and Economics

## ECTS

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
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## Duration

<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
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<tbody>
<tr>
<td>1 semester</td>
<td>graduate</td>
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## Contents

The course discusses advanced approaches for modelling and solving decision problems in business settings. The acquired insights are used to design and implement decision support systems using standard software tools.

## Intended learning outcomes

After successfully completing the course, students should be able to

- Understand the structure of classic business decision problems
- Isolate key elements from general problem descriptions and convert them to quantitative decision models
- Solve different classes of optimization problems (linear, network, integer, multi-objective, non-linear, stochastic)
- Implement spreadsheet-based decision support systems

## Courses

<table>
<thead>
<tr>
<th>(type, number of weekly contact hours, language — if other than German)</th>
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## Method of assessment

a) written examination (approx. 60 minutes) or b) oral examination (one candidate each: approx. 15 to 20 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes)

Language of assessment: German and/or English

## Allocated for bonus

creditable for bonus

## Allocation of places

40 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Master's students of Wirtschaftsinformatik (Business Information Systems) will be given preferential consideration. (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (1) and (2) and the number of applications exceeds the number of available places, places will be allocated by lot among applicants from this group.

## 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) Economathematics (2016)
- Master's degree (1 major) Business Information Systems (2016)
- Master's degree (1 major) Business Management (2015)
- Master's degree (1 major) China Business and Economics (2016)
- Master's degree (1 major) China Language and Economy (2016)
- Master's degree (1 major) Management (2018)
- Master's degree (1 major) China Business and Economics (2019)
- Master's degree (1 major) China Language and Economy (2019)