# Module description

## Module title

**Modul Theory**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>10-M=VMTH-102-m01</th>
</tr>
</thead>
</table>

## Module coordinator

Dean of Studies Mathematik (Mathematics)

## Module offered by

Institute of Mathematics

## ECTS

5

## Method of grading

numerical grade

## Only after succ. compl. of module(s)

--

## Duration

1 semester

## Module level

graduate

## Other prerequisites

Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e.g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.

## Contents

Basics in module theory: modules and module spaces, canonical decomposition and representations, simple, semi-simple and complex modules, module trees and their defibrations, distorsion theorems, reduction theorems.

## Intended learning outcomes

The student masters mathematical methods in module theory and is able to analyse their quality.

## Courses

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

## Method of assessment

At the beginning of the course, the lecturer will choose one of the following methods of assessment: a) written examination (60 to 90 minutes), b) oral examination of one candidate each (approx. 15 minutes), c) oral examination in groups (groups of 2, approx. 20 minutes)

Language of assessment: German, English

## Allocation of places

--

## Additional information

--

## Referred to in LPO I

( examination regulations for teaching-degree programmes)

--

## Module appears in

- Master’s degree (1 major) Mathematics (2012)
- Master’s degree (1 major) Mathematics (2010)
- Master’s degree (1 major) Mathematical Physics (2012)