## Module title
Number Theory

## Abbreviation
10-M=AZTHin-152-m01

## Module coordinator
Dean of Studies Mathematik (Mathematics)

## Module offered by
Institute of Mathematics

### ECTS
10

### Method of grading
numerical grade

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

### Duration
1 semester

### Module level
graduate

### Other prerequisites
--

## Contents
Number-theoretic functions and their associated Dirichlet series resp. Euler products, their analytic theory with applications to prime number distribution and diophantine equations; discussion of the Riemann hypothesis, overview of the development of modern number theory.

## Intended learning outcomes
The student is acquainted with the fundamental methods of analytics number theory, can deal with algebraic structures in number theory and knows methods for the solution of diophantine equations. He/She has insight into modern developments in number theory.

## Courses
(V 4) + Ü (2)

Module taught in: English

## Method of assessment
(a) written examination (approx. 90 to 120 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, 15 minutes per candidate)

Assessment offered: In the semester in which the course is offered and in the subsequent semester

Language of assessment: English

creditable for bonus

## 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 International (2015)