Module title
Overview Complex Analysis and Advanced Analysis for Teaching Degree (German Gymnasium)

Abbreviation
10-M-FVL-Ü-152-m01

Module coordinator
Dean of Studies Mathematik (Mathematics)

Module offered by
Institute of Mathematics

ECTS
10

Method of grading
Numerical grade

Duration
1 semester

Module level
Undergraduate

Other prerequisites
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Contents
Advanced analysis of functions in several variables, integral theorems; complex differentiability and Cauchy-Riemann differential equations, path integrals and Cauchy integral theorems, isolated singularities, meromorphic functions and Laurent series, residue theorem and applications, Weierstraß product theorem and theorem of Mittag-Leffler, conformal maps.

Intended learning outcomes
The student is acquainted with fundamental concepts and methods in analysis of several variables (including integral theorems) and complex analysis. He/She is able to relate these concepts with one another, and realises the advantages of thinking across the borders of different branches in mathematics.

Courses
V (4) + Ü (2)

Method of assessment
Oral examination of one candidate each (20 to 40 minutes)

Assessment will have reference to the contents of modules 10-M-FTHL and 10-M-VANL.

Language of assessment: German and/or English

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
First state examination for the teaching degree Gymnasium Mathematics (2015)