## Module title

Complex Geometry

### Abbreviation

10-M=VKGE-161-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)

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## Duration

1 semester

## Module level

graduate

## Other prerequisites

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## Contents

The module builds on the topics covered in module 10-M=ADGM and discusses these in more detail: Wirtinger calculus, complex structures and complex manifolds, metrics on complex manifolds (e.g., conformal, hermitian, Kähler), differential operators on complex manifolds, classification of complex manifolds.

## Intended learning outcomes

The student knows and masters advanced methods and notions in complex differential geometry. He is familiar with the central concepts in this field and is able to apply the fundamental proof methods independently.

## Courses

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours, language — if other than German</th>
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</thead>
<tbody>
<tr>
<td>V (4)</td>
<td>Ü (2)</td>
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</table>

Module taught in: German and/or English

## Method of assessment

<table>
<thead>
<tr>
<th>Type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus</th>
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</thead>
<tbody>
<tr>
<td>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)</td>
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Assessment offered: In the semester in which the course is offered and in the subsequent semester

Language of assessment: German or English

credible for bonus

## 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

- Master's degree (1 major) Mathematics (2016)
- Master's degree (1 major) Mathematical Physics (2016)
- Master's degree (1 major) Computational Mathematics (2016)
- Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Master's degree (1 major) Computational Mathematics (2019)
- Master's degree (1 major) Mathematics (2019)