## Module Description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Algebraic Topology</td>
<td>10-M=VATP-161-m01</td>
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<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>Dean of Studies Mathematik (Mathematics)</td>
<td>Institute of Mathematics</td>
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<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
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<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

Homology, homotopy invariance, exact sequences, cohomology, application to the topology of Euclidean spaces.

### Intended Learning Outcomes

The student is acquainted with advanced results in algebraic topology.

### Methods of Grading

Only after successful completion of the module(s)

### Duration

1 semester

### Module Level

Graduate

### Other Prerequisites

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### Contents

- Homology, homotopy invariance
- Exact sequences, cohomology
- Application to the topology of Euclidean spaces

### Intended Learning Outcomes

The student is acquainted with advanced results in algebraic topology.

### Courses

- V (4) + Ü (2)

Module taught in: German and/or English

### Assessment

- a) written examination (approx. 90 to 120 minutes, usually chosen)
- b) oral examination of one candidate each (approx. 20 minutes)
- 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: German 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

- Master's degree (1 major) Mathematics (2016)
- Master's degree (1 major) Mathematical Physics (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) Mathematics (2019)